SPOTLIGHT:
Mapping & Technology
// GPS Accuracy Under the Gun
// Aircraft Surveillance of Pipeline Threats
// As-Built Surveys: 3-D Scanning

NEW MEXICO’S SYSTEM:
Damage Reporting & Enforcement Tracking

ONE CALL ASSOCIATIONS:
New Guidelines for Government Agencies

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The Olympics of the Locating Industry
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The Ditch Witch® 2450GR locates any type of utility conduit or pipe—metallic or non-metallic—beneath soil, rock, pavement, and other surfaces. It detects voids and sinkholes, locates underground storage tanks, finds concrete and more. Plus, you don’t need a flat surface or perfect working conditions. That’s not your reality, which is why we built the 2450GR to be like no other ground penetrating radar system—one that can withstand the realities above the surface while finding the realities below. For more information, see your dealer or visit ditchwitch.com.
On The Cover: This issue’s Spotlight Section is on “Mapping & Technology.” The advent of 3-D Laser Scanning technology is changing the role of on-site field surveyors. Photos Courtesy of Woolpert.

// SPOTLIGHT //

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Educating Your Employees

If you are reading this magazine, you are interested in safe excavation and damage prevention. Is everyone at your company as interested as you are? Does every employee where you work know and follow all the steps required for safe digging? In most cases the answer to these questions is probably “no.” It appears to me that most of the industry focuses its educational efforts on people who are excavating regularly. 811 has also made it more realistic to target educational messages to homeowners.

But, what about all the other employees at your company, not just those people digging or working in public awareness? What about the person in engineering who may plant a tree this weekend, or design a new cable route? What about the receptionist who may put in a new mailbox tonight? If you add up all the employees of all the facility owners and excavators in North America I would bet the number is staggering. This would include all cities, counties, state DOTs, Telcos, excavators, and on and on. What percentage of these employees will call before planting a tree, or stop and talk with a neighbor or excavator who is digging with no sign of paint or flags? Outside of a One Call Center, maybe 20-30%? Maybe 60%? I doubt there is any statistic on this.

With our summer issue, we tested a campaign to help companies educate their own employees, as well as other stakeholders that they deal with, by offering free customized electronic editions of Damage Prevention Professional. Any stakeholder can send us a letter to insert into the magazine, explaining why damage prevention and safety are important, or any other message they choose. We insert this into the magazine as the first page, and send you back your own custom edition. The stakeholder then sends this electronic edition to all their employees, and/or members, excavators, etc. Education is the key to safe excavation, and Damage Prevention Professional can really help move the chains down the field in the area of education.

This summer, 10 One Call Centers took advantage of this opportunity, and many emailed their custom edition on August 11. In addition, BP started the ball rolling with a custom edition for their employees.

We will be offering this service each quarter, at no charge, as long as we can keep up with demand. As a quarterly publication, each edition is current for 90 days, so if you would like a custom edition please let us know by emailing Liz@emailir.com.
**Do I Have to call 811 Before I Mow the ROW?**

**Answer by Roger Lipscomb**

This summer, Ohio Utilities Protection Service (O.U.P.S.) received a couple of very unusual excavation requests. Actually, they were not excavation requests at all, allow me to explain.

The Ohio Department of Transportation (ODOT) called in two excavation tickets for mowing the ROW. Their expectation was that the utilities in the ROW with above ground structures, such as communications pedestals, gas meters and electric transformers, would mark these structures in such a way as to insure that the mowers would not run them over while cutting the high grass. It was the first time in our nearly 40-year history that such a request was made.

It must first be understood that in cooperation with the Ohio Department of Natural Resources (ODNR) many of Ohio’s DOT ROWs are allowed to grow while ground nesting birds are raising their young. This results in high grasses in the ROW by mid- to late-summer. These grasses often times completely hide above ground utility structures such as those previously mentioned. Unfortunately, this leads to a surprisingly large number of above ground utility structures being damaged by mowers each year.

When these requests came in we were not exactly sure how to deal with them from a Call Center perspective. Clearly, there was no excavation taking place and as such a One Call notification for underground damage prevention was not necessary. However, just as clearly was the fact that above ground utility structures were in jeopardy and so a public safety concern existed. We elected to error on the side of public safety and processed the notifications while seeking guidance from our legal council and Board of Trustees.

This action brought mixed reviews, as you can imagine. Some utility members and contract locators applauded our decision to process these notifications, and yet others thought we had somehow lost control of our minds. Either way, a spirited dialogue around the issue quickly ensued. In the end, it was determined by our legal council that the Ohio Revised Code is silent on the subject of marking mowing requests and thus we are not obligated to take these types of notifications, nor are we liable for refusing them.

Still very much concerned about the public safety issues surrounding this subject, O.U.P.S. decided that if ODOT wished to continue providing notice of mowing activities, we would develop a process by which ODOT’s could facilitate a dialogue between ODOT and those utilities with facilities in the ROW. This activity would take place off-line without an excavation notice being created.

Another unusual request was received last winter and it involved identifying above ground utility structures that had been buried by accumulations of snow during plowing activities. The snow had accumulated to the point that it was necessary to use front-end loaders and dump trucks to remove it, and this raised the concern of possible damage to above ground utility structures...especially fire hydrants. Because this activity was, in a sense, excavation related, we processed the tickets and received no concerned feedback from the utilities.

Roger Lipscomb is the President/Executive Director of Ohio Utilities Protection Service. He can be reached at rogerl@oups.org, or 330-545-7244.

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**The Legend of Bigfoot**

I just read “The Legend of Bigfoot” by Christopher Koch in the Summer 2011 Damage Prevention Professional. Very good, well structured, readable and honest article. A nice change from the usual, and I hope you continue to submit articles. As a SUE professional, I have heard about this beast myself over the years. And while Bigfoot is for the most part elusive, every once in a while you’ll meet someone who claims to BE Bigfoot. I actually took a picture of one once, as he took a minute to pose with a friend of mine, Lee Majors. Thanks for your contribution to the education of SUE professionals (and Bigfoot hunters) everywhere.

Scott T. Smith, Senior Project Manager, Charleston, SC
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Training Video Series!

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Focused on providing a comprehensive overview of the industry’s best practices for locating. A great overview for someone who is new to locating or someone who needs to understand the locating process.

Basic Locating Theory
Explains how and why electromagnetic locating works in terms the layman can understand. Covered topics include the transmitter and receiver as well as signal frequency and methods of connection.

Basic Locating Skills
Expands on the information provided in the “Basic Locating Theory” video, offering practical tips on how to get the most out of your locating set in field applications. Topics include basic troubleshooting and recognizing signal distortion.

Damage Investigation: Field Investigation Techniques
Investigate damages well and win your case! Valuable information created by seasoned damage investigators and claims attorneys.

Order yours today and start training your staff tomorrow!
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This sounds like a strong statement, but this is exactly what conference attendees will learn to do at the 2012 CGA Excavation Safety Conference & Expo, March 6-8, in Las Vegas. If you work for a facility owner or a professional excavator, you have an important role in saving both money for your employer, and in reducing the probability of people being hurt as a result of a damaged pipeline or cable. Damage prevention does not need to be part of your title or job description to have this responsibility. Simply being a stakeholder grants you this job.

In a tight economy, many companies focus on cost cutting. If you take away just one idea you can put to work at your company, what could that mean in terms of cutting costs? What does an average damage cost to repair? What revenue is lost via loss of use or credits issued to your customer? What do all the activities surrounding a damage cost in lost labor hours by everyone involved? Consider not only 3rd party damages, but also 1st and 2nd party damages. Lastly, what is the cost if someone is injured?

If your company is looking to cut costs and prevent injuries, you cannot afford to miss this event.

The Common Ground Alliance (CGA) annual meeting is also held during this event. It provides an opportunity to learn more about the CGA and its current and future initiatives dedicated to effective damage prevention practices. You do not need to be a CGA member to attend the conference or the annual meeting. However, don’t be surprised if after you see what a difference the CGA makes, you find yourself and your company wanting to join.

More than 50 conference sessions available

Here is a quick overview of a few of the 50+ sessions that are already scheduled. If you work for a company with any kind of cable or pipe in the ground, or you excavate for a living, you will find a wide variety of sessions that can provide you with ideas you can put to work to save your company money. Sessions will be added throughout the fall, and you can see a current list at www.CGAconference.com.

• A Risk Model for Excavation Damage
• Advancements in Plastic Pipe Locating
• Developing an Excavation Safety Culture
• Implementing a One Call Ticket Management System

• Importance of Analyzing, Reporting, and Repairing Pipelines Damaged
• Leveraging SUE Data for Utility Safety on Projects
• Public Awareness, Dealing With Media & Crisis Communication
• Resolving Locating Obstacles
• Why Do One Call Centers Need a Disaster Recovery Plan?
• You The Jury - Trial of an Underground Utility Damage Claim
This is just a small cross-section of the sessions that will be conducted by experts from across North America. One common complaint from attendees is that there were too many great sessions, and they could not attend them all. This is one reason many companies send groups to the conference.

When you combine the information presented at the sessions, you pick up valuable tips from your peers and you learn what new technologies and services are offered on the exhibit floor, so the CGA Excavation Safety Conference & Expo should be on your calendar for March 6th – 8th, 2012.

“THIS IS THE PREMIER CONFERENCE FOR ANYONE INVOLVED IN THE DAMAGE PREVENTION INDUSTRY.”
PATTI LAMA, PORTLAND GENERAL ELECTRIC

“I DON’T UNDERSTAND WHY ANY STATE ONE CALL CENTER WOULDN’T WANT ALL THEIR BOARD MEMBERS TO ATTEND THIS CONFERENCE.”
STEVE HALSTEAD, IOWA ONE CALL

“THE BREAKOUT SESSIONS HAVE SOMETHING FOR EVERYONE, AND THE NETWORKING IS INVALUABLE. IT GETS BETTER EVERY YEAR.”
DAVE BERENS, CITY OF CINCINNATI

“It was incredible and helpful that everyone I met, from across the country, was concerned and talking about the same issues.”
SCOTT SAMMONS, PUGET SOUND ENERGY

“The CGA Conference & Expo is the cornerstone of underground utility protection training. It is a great opportunity to talk with the industry leaders, listen to the issues and solutions from across the country, and see the newest products.”
- MARK PALMA, HINSHAW & CULBERTSON, LLP

CONFERENCE SCHEDULE

| Monday, March 5, 2012 | 1:00 pm – 5:00 pm | OCSI Meeting |
| Tuesday, March 6, 2012 | 8:00 am – 2:30 pm | Common Ground Alliance (CGA) Committee Meetings |
| | 8:00 am – 2:30 pm | All Welcome |
| | 9:00 am – 5:00 pm | Damage Investigation Workshop |
| | 3:00 pm – 5:00 pm | Conference Sessions |
| | 3:00 pm – 5:00 pm | Exhibits |
| | 5:00 pm – 7:30 pm | Welcome Reception on the Exhibit Floor |
| Wednesday, March 7, 2012 | 7:30 am – 9:30 am | Common Ground Alliance (CGA) Breakfast and Annual Meeting |
| | 9:30 am – 5:00 pm | Exhibits and Demonstrations |
| | 10:30 am – 4:00 pm | Conference Sessions |
| | 11:30 am – 4:00 pm | Locator Workshop |
| | 12:00 pm – 1:00 pm | Lunch for Conference Attendees |
| | 4:15 pm – 5:00 pm | Exhibitor Prize Give-Aways |
| Thursday, March 8, 2012 | 7:30 am – 8:00 am | Continental Breakfast for Conference Attendees |
| | 8:00 am – 9:00 am | Underground Safety Summit |
| | 8:00 am – 2:00 pm | Exhibits and Demonstrations |
| | 8:30 am – 1:00 pm | Locator Workshop |
| | 9:30 am – 1:00 pm | Conference Sessions |
LOUIS PANZER NAMED EXECUTIVE DIRECTOR OF NORTH CAROLINA 811

The Board of Directors of North Carolina 811, Inc., have announced Mr. Louis Panzer as the new Executive Director of North Carolina 811. Mr. Panzer is an industry professional who sincerely believes that damage prevention is a shared responsibility. Louis intends to continue to pursue the mission of the NC 811 Center by providing the most cost-efficient methods of accurate communication between excavators and operators of underground facilities.

In a letter dated August 24, 2011 to members of North Carolina 811, Board President Roger G. Jones, PE wrote, “We believe Mr. Panzer reflects the Common Ground Alliance (CGA) message of shared responsibility and will help continue to guide the State with effective direction of NC 811. His goal is to protect the citizens of North Carolina to the best of the abilities provided by the Center. He is committed to accomplishing this through timely communication and education to all stakeholders about the benefits of following the national best practices surrounding protection of facilities.”

Every stakeholder in this process is an ally in the prevention of damages. Mr. Panzer will do his best to insure that every participant in the process is given respect and an ability to share their concerns and suggestions in improving this process. He will do this by sharing the Common Ground Alliance Best Practices and continuing to work to help facilitate communication between everyone involved in safe excavation.

UNITED STATES INFRASTRUCTURES CORPORATION ACQUIRES CONSOLIDATED UTILITY SERVICES

NEW YORK, NY -- (Marketwire - Aug. 4, 2011) - United States Infrastructure Corporation (USIC or the “Company”) announced today that it has acquired Consolidated Utility Services, Inc. (CUS) from funds affiliated with Tricor Pacific Capital, Inc. Headquartered in Omaha, Nebraska, CUS is a leading provider of outsourced sub-surface utility locating services. Since its formation in 2004, CUS has aggressively expanded its operations to provide locating services across 21 states and in the province of Alberta.

USIC currently provides locating services across 19 states on behalf of over 400 telecom, electric, gas, cable and water utilities, including all major national and regional utilities throughout the Midwest, Southeast, Southwest and Northwest. The acquisition of CUS will significantly expand USIC’s geographic span of operations. Based in Indianapolis, Indiana, USIC was created in 2008.

“Through the acquisition of CUS, USIC will accelerate its growth, expand its geographical presence and strengthen its customer service capabilities,” said Michael Graham, Senior Managing Director and Head of U.S. Private Equity for OMERS. “We look forward to working with the management team of USIC and CUS to effect a seamless integration.”

For more information, contact Michael Stayton, President and CEO, USIC, at 317-571-5801 or mkeystayton@usicinc.com or Michael Graham, Senior Management Director, OMERS Private Equity USA, at 212-986-7520 or mgraeham@omerspe.com.
Cal/OSHA Investigating Death of Water District Worker

The California Division of Occupational Safety and Health, also known as Cal/OSHA, is investigating the recent death of a Beaumont-Cherry Valley Water District employee who was struck and killed by a commercial truck in Beaumont, California.

“He was marking the location of a water line when he was struck by a flatbed truck,” Patricia Ortiz, a spokesperson for Cal/OSHA based in San Francisco, said in an interview.

Ortiz said she was reading from a preliminary report.

A county coroner’s report said Ricardo Flores, 24, of Beaumont, was a water district employee who was marking the street when he was struck and fatally injured by a truck. The state agency was notified and a Cal/OSHA investigator visited the accident site to gather information, Ortiz said. The agency has up to six months to finish its investigation, though similar Cal/OSHA investigations typically take three to four months to complete, Ortiz added.

“Cal/OSHA inspectors work to protect and govern the safety and health of workers in California,” Ortiz said in an email. “The investigation is to make sure Labor Codes are not violated. Safety programs are reviewed and inspectors check to see if standards are followed. Employers are cited with monetary penalties if violations are discovered.”

“This tragic event is currently under investigation. Our thoughts and prayers go out to Ricky’s family and friends. Ricky worked at the District and was part of our family for the past seven years. He will be missed,” said Anthony Lara, interim general manager for Beaumont-Cherry Valley Water District.

As reported in the Banning-Beaumont Patch June 29, 2011
PG&E STATEMENT FOLLOWING NTSB HEARING

SAN FRANCISCO, Calif. – Pacific Gas and Electric Company (PG&E) issued the following statement from President Chris Johns on August 30, following the National Transportation Safety Board’s (NTSB) hearing on the San Bruno accident investigation:

Today’s hearing at the NTSB represents an important milestone in the determination of the cause of the San Bruno accident. We at PG&E will take to heart the NTSB’s findings from its thorough and independent investigation into the tragic San Bruno accident nearly a year ago. Because we firmly share the Board’s commitment to seeing that such a terrible accident never happens again, we are grateful for its meticulous review of evidence, finding of facts and thoughtful recommendations.

The Board’s discussion today cited specific past PG&E practices on many fronts, including pipeline construction, testing, record-keeping practices, control room procedures, integrity management, and emergency procedures. Additionally, the NTSB’s investigation noted an organization and culture that was not sufficiently focused on public safety.

The accident in San Bruno was a tragedy and we are deeply sorry that our pipeline was the cause. We know that nothing we can say nor any action we can take will ever make up for the losses experienced by the victims of the accident and the San Bruno community. We will continue to support the City of San Bruno and the victims of the accident and their families as they heal and rebuild.

Subsequent to the accident, we at PG&E have completely reviewed and begun the overhaul of our gas operations. We have spent the past year making fundamental changes to our operations and management that will put the safety of the public, our customers and our employees first.

We fully embrace the recommendations of the NTSB and will incorporate them into our plans. Although we still have much to learn and do, we have already taken many immediate and long-term steps to promote safety:

Immediate steps to ensure system safety:
• PG&E has reduced pressure on more than 1,600 miles of gas transmission pipelines.
• PG&E expects to pressure test approximately 165 miles in 2011.
• PG&E is using new in-line camera technology to inspect interior welds.
• PG&E retrieved more than 1.7 million documents to substantiate current gas pressure levels in all high-consequence areas (HCAs).
• PG&E has increased coordination with first responders and is developing a more comprehensive emergency response plan.

Management and structural changes:
• PG&E Corporation hired Anthony F. Earley Jr., CEO of DTE Energy in Michigan, as its new CEO, Chairman and President, starting Sept. 13. Earley is highly regarded in the industry for his record of excellence in utility operations and safety.
• PG&E separated its gas and electric operations, creating a more accountable gas organization with the authority, resources and mandate to completely reform its practices.
• Nick Stavropoulos, a veteran gas turnaround specialist, became executive vice president of gas operations in June. He worked for three decades as a leader in gas companies in the Northeast and New England.
• PG&E has hired more than 90 new gas engineers as well as additional project managers, mappers and other employees through a major nationwide recruiting effort.

Comprehensive plan to modernize the gas system
Looking to the future, PG&E filed a Pipeline Safety Enhancement Plan with the California Public Utilities Commission on Aug. 26, 2011. In addition to ongoing safety measures, such as increased patrols and leaks surveys, work has already begun on several key initiatives:
• Pipeline modernization. PG&E’s goal is to test, inspect and replace pipelines as necessary to ensure that every gas transmission pipeline operates at or below proven, tested and verified safe operating pressures, and to allow for state-of-the-art internal inspections, or “pigging”.
• Valve automation and monitoring. PG&E will install more remote control valves and automatic shut-off valves, as well as remote sensing equipment, to isolate pipeline segments quickly in an emergency.
• Pipeline records integration. PG&E is working to implement the NTSB’s recommendation that it create a central electronic database of “traceable, verifiable and complete” gas transmission records. The company will also increase the capability of its digital mapping and software systems to integrate pipeline records moving forward.
• PG&E will hire a vice president for safety with experience in instituting industry best practices. The new position reports directly to President Chris Johns.
• The company has retained leading safety experts to help implement public and employee safety best practices.
• Safety performance is now a significant component of the employee incentive plan and as a condition of future employment.
• Training programs for apprentices, journeymen, and supervisors have been upgraded.

For more information, contact PG&E External Communications at 415-973-5930.

NEW DIG SAFE® LOGO

Dig Safe®, the One Call center serving Massachusetts, Maine, New Hampshire, Rhode Island and Vermont, is excited to introduce its new logo to mark its full-range promotion of 811 as the number to dial before you dig. The new emblem unites Dig Safe’s locally recognized image with Common Ground Alliance’s national 811 logo.

Dig Safe is currently re-vamping its awareness campaign to bear this image on new TV public service announcements, billboards, and printed material across New England. “The unveiling our new 811 campaign is an enormous step in our efforts to spread the word. Our messages are about a simple three digit number to reach us before digging, and we look forward to seeing an increase in awareness from property owners and contractors alike,” said Bob Finelli, Executive Director.

To learn more about Dig Safe’s campaign, please contact Lisa Powers, Public Relations Executive, Dig Safe Systems, Inc., at 781-721-1191 or lpowers@digsafe.com
Eliminating All Safety Exemptions Could Backfire, States Warn

By Nick Snow, OGJ Washington Editor

WASHINGTON, DC -- Eliminating all government agency exemptions as a condition for states to remain eligible for federal One Call and damage prevention grants would do more harm than good, a state pipeline regulator warned a US House Energy and Power Committee subcommittee on July 15.

Randall S. Knepper, the New Hampshire Public Utilities Commission's safety division director, who testified on behalf of the National Association of Pipeline Safety Representatives, said that NAPSR members are concerned that eliminating the exemptions as the federal pipeline safety reauthorization bill proposes would undermine safety by denying states money to support their own programs.

"The grant funds, when doled out among the states, are not of sufficient level to provide an incentive to a state to attempt to force a one-size-fits-all scenario to the multitude of excavation scenarios," Knepper said in written testimony submitted to the committee's Energy and Power Subcommittee.

"Eliminating these funds will result in less effort by the state in promoting use of the 811 number, in educating locators and excavators, and in carrying out educational efforts with other stakeholders to reduce excavation damage to pipelines and other infrastructure," he continued. "This could actually increase the number of incidents, and result in lower overall levels of safety."

Other witnesses called for elimination of the exemptions, however. US Pipeline and Hazardous Materials Safety Administration Administrator Cynthia L. Quaterman said the interstate pipeline regulator supports the bill's provision which prohibits any exemptions by states from underground damage One Call laws. "However, the states may have difficulties in immediately achieving these goals," she said in her written testimony. "Therefore, we suggest that Congress take a phased approach to any funding restrictions to provide some time for states to remove exemptions."

LEADING ACCIDENT CAUSE

"While third-party damage (typically from mechanized excavation) accounts for only a small number of releases from liquid pipelines, failing to 'call before you dig' can have very serious consequences," observed Andrew J. Black, president of the Association of Oil Pipelines, who also testified on the American Petroleum Institute's behalf. "It is the leading cause of pipeline accidents which kill or injure people." S. 275, the US Senate's version of this bill, removes exemptions for municipalities, states, and their contractors, and Section 3 of the bill before the House "would go a long way in protecting the public," he said in his written statement.

Daniel B. Martin, the senior vice-president of pipeline safety in El Paso Corp.'s pipeline group, who testified on the Interstate Natural Gas Association of America's behalf, told the subcommittee that excavation accidents are the most avoidable kind of pipeline incidents. "Requiring all excavators to 'call before digging' is critical to a successful damage prevention program, and therefore exemptions from participation, especially for large-volume excavators, make little sense," he said in his written testimony.

Natural gas utilities also support eliminating One Call exemptions, according to Charles F. Dippo, vice-president of engineering services and system integrity at South Jersey Gas Co., who testified on the American Gas Association's behalf.

Energy and Commerce Committee Chairman Fred Upton (R-Mich.) noted that the bill's provisions also included requiring pipeline operators to report incidents to the National Response Center within one hour, use of automatic or remote shut-off valves, use of better leak detection technologies, and application of more highly enhanced inspection techniques and technologies. The measure also would substantially raise fines for pipeline operators who have major accidents, and increase the number of inspectors at PHMSA, he indicated.

Upton said that he intended to move the pipeline safety reauthorization bill through the subcommittee in the next few weeks and have it ready for the full committee when the House returns from its August recess.

For more information, contact Nick Snow at nicks@pennwell.com.
On July 15, 2011, the Canadian Common Ground Alliance submitted an application to the Canadian Radio-television and Telecommunications Commission (CRTC) requesting joint use of 811 in Canada. The application was the result of the vision and hard work of many people across the country and there is great anticipation within the damage prevention community for a favorable outcome.

With the review process firmly underway, the CCGA’s application has attracted positive attention from stakeholders from coast to coast who have issued letters supporting the application for joint use of 811 to the CRTC.

811 was assigned by the CRTC to non-emergency tele-triage health information in 2007. Since then, four provinces and one territory have initiated those services using 811. The CCGA respects the existing assignment of 811 in Canada and in its application, should the CRTC render a favorable decision, the CCGA committed to working with the provincial and territorial Health Ministries to assist rolling-out 811 for both tele-triage and Call Before You Dig to serve a broader public interest.

Mike has been involved in damage prevention in Canada for 20 years. He is the current Chair of the Canadian Common Ground Alliance and the new President of Alberta One-Call Corporation.
The Metropolitan Utilities District (M.U.D.), a public natural gas and drinking water utility, serves a population of nearly 600,000 in the Omaha, Nebraska metro area. The utility has used natural gas vehicles (NGVs) and compressed natural gas (CNG) fueling equipment in their operations since the mid-1980s. Their fleet of more than 300 vehicles includes approximately 80 NGVs.

In the last decade, NGVs saved the District’s customers more than $600,000 in fuel costs; displaced more than 13,000 barrels of foreign oil, and lowered carbon dioxide vehicle emissions by nearly 1,500 tons, a 25-percent reduction.

Since 2008, M.U.D. has built strategic partnerships with public and private entities to develop a market for NGVs in the Midwest. The collaboration bore fruit with the June 2011 opening of Nebraska’s only public access CNG fueling station, located at I-80 Fuel in Omaha. The utility opened a second public access station in August, and the Airport Authority in Lincoln, Nebraska, will open a third public station in September.

“These facilities will help fill in the lack of fueling stations that exists between Chicago and Denver, and spark development and use of NGVs along the I-80 corridor,” said Doug Clark, president of M.U.D. and chairperson of NGV America, a national trade organization dedicated to developing an American market for natural gas vehicles.

“As more individuals and businesses look to alternative sources of energy, natural gas makes sense. It is clean, abundant and American,” said M.U.D. Board Chairperson David Friend at the June 10 ribbon-cutting event. “Tighter emissions controls on cars and trucks, concern about reliance on foreign oil and large domestic reserves of natural gas make CNG vehicles a sound choice. CNG offers customers an opportunity to save money and protect the environment.”

Public fueling stations are the key piece to encourage other businesses to integrate NGVs into their fleets. Most fleet managers are not inclined to take action until they clearly see how the economic benefits actually will work in their applications. The August price for CNG at the station was $1.939 per gasoline gallon equivalent. The July 2011 average price in Nebraska for regular unleaded gasoline was $3.689 per gallon.

Mark Mitchell, president of I-80 Fuel and Happy Cab Company, saw the potential benefits to his operation and was an early partner in the process. The company provided the property for the first fueling station and committed to convert 50 cabs to run on natural gas.

The I-80 Fuel station will serve more than 140 CNG vehicles, including: the 50 cabs; M.U.D.’s growing fleet of more than 80 fleet vehicles; six to eight new natural-gas powered shuttle buses for Metro, the Omaha transit agency, and private citizens who own CNG vehicles.

Funding to help build the stations and purchase NGV fleet vehicles and equipment was made possible through federal and state grants. M.U.D. and partners joined the Kansas City Regional Clean Cities Coalition (KRCCC) to apply for American Recovery and Reinvestment Act stimulus funds. In August 2009, the KRCCC was awarded $15 million in federal funds. M.U.D. and its Nebraska area partners received a $2.3 million grant (Award DE-EE0002538) from the U.S. Department of Energy to establish a viable market for NGVs in Nebraska. In addition to federal funds, M.U.D. received a grant from the Nebraska Environmental Trust and a low-interest loan from the Nebraska State Energy Office.

Douglas R. Clark is President of the Metropolitan Utilities District, Omaha, Nebraska. He can be reached at 402.504.7110 or Doug_Clark@mudnebr.com. For more information, go to www.livegreenthinkblue.com and www.mudomaha.com
International Utility Locate Rodeo

BY MEGHAN CHESTNUTT – MANAGER, CORPORATE COMMUNICATIONS – GEORGIA 811

Ten years of high-tech hide-and-seek were celebrated in Georgia on Saturday, August 6, on the campus of Georgia Tech University. The International Utility Locate Rodeo (Locate Rodeo), hosted by Georgia 811 and the National Utility Locate Contractors Association (NULCA), is described as “The Olympics of the Locate Industry.” More than 60 locate technician competitors from across the U.S. and Canada were in attendance this year.

“Locate technicians perform extraordinary work to protect our communities, but their work often goes unnoticed,” said Claudette Campbell, President and CEO of Georgia 811. “The Locate Rodeo is a great way to honor the men and women who locate underground utilities, and to showcase to the world how their hard work keeps residents safe.”

The mission of the Locate Rodeo is to be the preeminent event for Utility Locate Technicians. Locate Rodeo is designed to celebrate the art and science behind the craft of underground utility locating. It recognizes and serves as the cornerstone for promoting high quality and achievable standards in the industry.

Christopher Koch, President of Hance Utility Services and current NULCA President, explained that “NULCA is proud to once again co-sponsor this important event. The Rodeo provides an unparalleled opportunity to recognize the everyday heroics of dedicated trades people and to celebrate the professionalism of a largely invisible industry. The mutual respect and camaraderie among competitors is inspiring.”

Competitors compete in one of four divisions: gas, power, telecom or water. Within each division, their skills are put to the test at three different event sites. The scores from all three event sites are used to determine the winner. Each competitor is allowed 12 minutes to complete an event and time is used as a tie breaker. A bonus event, the Locate From Hell (LFH), is open to any competitor who feels they are up to the challenge.

Decisions to participate in the LFH are voluntary and it differs from other divisions in several ways. First, there is only one event site. Second, the competitor only has 3 minutes of mean time for locating. Third, the competitor may not use his or her own equipment -- they are required to select equipment from one of the participating Rodeo Equipment Manufacturer sponsors.

First place winners in each division won $1,000, second place earned $500 and third place took home $250. The total purse for the event was $8,750. In addition to the Rodeo winnings, the Rodeo Equipment Manufacturer’s Challenge (REMC) made it possible for first place winners to add up to $1,000 more to their winnings. In addition, Double Diamond Sponsor Krylon awarded $100 to each first place winner.

For the 2011 competition, REMC Diamond sponsors Radiodetection and Vivax/Metrotech sponsored all four divisions and the LFH. Winners in each division, who declared their use of a Diamond REMC’s equipment, added $1,000 to their winnings. Gold Level REMC sponsors had their equipment available at the LFH and could add $500 to a competitor’s first place winnings. This year that group included 3M, Mclaughlin Group, Inc., and RIDGID.

For more information about the Locate Rodeo please visit www.LocateRodeo.com or look for Locate Rodeo on Facebook and Twitter.
STAKEHOLDER PERSPECTIVES

Update on Alabama One Call Center Tornado Recovery

BY ANNETTE REBURN

It has been nearly four months since the tornadoes swept through Alabama and left their trail of damage. There have been many lessons learned from this experience and many alternate plans for preparations for any future events. Since moving our operations back to Alabama to our temporary facilities, beginning the first of June, we have been extremely busy in dealing with the reconstruction of our building. Little did we know, less than four years ago, that we would be doing this all over again so very soon.

In late April, Alabama 811’s offices were severely damaged in the tornado that came through the Birmingham area in the early evening hours. We were so very fortunate that none of our employees were in the building and none of our employees experienced any loss at their homes. In the meantime, we are learning how to rebuild our professional lives and are thankful for the plans that were in place at the time of the disaster.

After the storms had passed through our area, our Operations Manager went to check on our office. Although she was unable to get near our building due to downed power lines blocking the roadways, she was able to see our building from a distance and tell there was significant structural damage. Being out of town at the time, I made plans to get transportation back to Birmingham that evening, and was unsure of the level of damage we had actually received. It was a bit deceiving when we called our office voicemail, and it answered, and we were also able to access the servers for our One Call software. Little did we know exactly what we would find then next morning when we pulled into Birmingham and our office site. However, we had already begun to put our Business Continuity Plan in place on our drive over, to have our calls and locate requests be processed by our partner, Texas 811, and to be prepared to start the day following the storms.

Although we had significant structural damage to the building, our computer room was still in tact and our underground facilities were still operating with the help of our natural gas generator powering our systems. We were able to access that portion of the building and orderly shut down and remove our servers to ensure our current database was saved. In addition to that, we already had a backup (BusCon) server in place at TX 811’s co-location facility, which was backed up regularly. Therefore, when we needed to swap our operations over to that server, we were able to do so with our database current.

We were very fortunate to have our BusCon program up and running and the partnerships we had in place with our other P2 states to utilize their facilities, staff and expertise to allow for minimal downtime for our utility and contractors in Alabama. No, everything did not cut over seamlessly, but we maintained operations during the entire time with only a slight interruption as the communications were cut over. What we did learn is that, what we all thought was true, the communications link is the hardest to replicate, the data is easy. In the month it took to get our temporary facility up and running, the delay was getting the communication lines duplicated and re-established at the temporary location.

As we move forward in our reconstruction, we will continue to work on how best to operationally and economically replicate our operations to ensure a more streamlined business interruption plan if we ever have the unfortunate luck to experience anything similar to this event in the future.

Annette Reburn is Executive Director of Alabama One Call. She can be reached at areburn@al1call.com. Learn more about Alabama One Call by visiting www.al1call.com.
What’s Next for Public Safety in the Right-of-Way?

BY WAYNE JENSEN

There is no question that there is a need to develop new strategies to protect the integrity of buried facilities in the public Rights-Of-Way. The number of instances is increasing where damages result in major losses of life. With each event, we hear the public outcry to protect buried facilities for the sake of public safety. The challenge of utility damage prevention professionals everywhere is to uncover new strategies to protect the public and all parties working in and around the public ROW.

Current Status Of Damage Prevention:
The current status of damage prevention in most, if not all, geographies is good enough to keep the rate of damages to buried facilities to less than 1 damage per 1,000 dig tickets. It is interesting that many locating organizations, while all strive for zero damages, will often accept a quality metric for acceptable damage ratios of their locators to be about the same ratio of 1 “at fault damage” per 1,000 locates.

The “Norms” For Damage Prevention:
If the number of damages per 1,000 tickets has been successfully reduced to meet the same quality metric for locating we may have reached the “norms” for acceptable damage rates. This could be preventing us from driving damages to even lower levels. The damage prevention industry is focused on failures to prevent damage, as it should be. However, if we look at the same data as a “success ratio” the industry has eliminated all but one damage per 1,000 episodes of excavating represented by a ticket. If we were talking about aircraft landings at Atlanta’s Hartsfield, that rate would mean three crashes per day killing hundreds. That rate is clearly unacceptable for that industry. But in an industry where damage may have life threatening consequences once in 10,000 or maybe 100,000 episodes, we may have reached a level of damage that may be considered “acceptable” by the risk managers of facilities that are buried in the ROW. Acceptable meaning we will not invest more in the effort to prevent damage.

The “cost versus benefit” barrier surfaces when it comes to investment in damage prevention that may be required to improve the quality of utility locating. The quality of utility locating is a direct function of: (1) the quality of information provided to locators; (2) the quality of the technology being used to locate facilities; and (3) the skill of the locator in using the technology. Out of these three areas, almost nothing is being done to improve the quality of data provided locators. We continue to uncover many instances where the utility owner believed their facility was on the other side of the street from where damage occurred. The truth is that improving the quality of buried facility location data is the area of damage prevention which has the most direct bearing on public safety, and it is the area of greatest opportunity for improving public safety.

Critical Drivers For The Adoption Of Best Practices:
There is an increasing public outcry to do more to protect the public with regard to damage prevention, as evidenced by initiation of the Pipeline and Hazardous Materials Safety Administration in 2004. The cost of damage in the court of public opinion will likely drive the next generation of damage prevention. Today, the current condition is that the responsibility for protecting buried facilities has been mostly shifted to the realm of the locator and the excavator. The ability of both parties to prevent damage is largely dependent on the quality of facility location data, which falls into the realm of responsibility of the utility owners.

It is well established that utility owners will not provide SUE services for locates except in very special circumstances. That is easy to understand when the utility is trying to keep the cost of locate tickets in the field down to $10 when they would have to spend $100 on a SUE vacuum excavate to verify the location of buried facilities at a single point.

A number of damage prevention professionals, including myself, have put it on the table that public owners should consider funding SUE data recovery for all future projects. It is well documented by the DOT’s that the ROI for SUE efforts range from $4 to $22 for every dollar spent. However, the resistance remains. The ROI is usually attributed to using high quality utility location data to design around conflicts to avoid the
high cost of dealing with conflicts during construction. It also has the additional benefit of establishing high quality utility location data for the use of locators and contractors during construction.

What we are finding is that many public owners, both large and small, are more than willing to accept low quality data for design, and see little value in SUE for just damage prevention when they can rely on One Call laws as their damage prevention shield. Additionally, many public owners don’t feel they should pay to protect utilities they don’t own. We are simply not winning the battle for damage prevention that requires non-existent funds to pay for what many in the public owner community believes is the responsibility of “others.”

Excavators And Damage Prevention:

Professional Excavators are extremely capable of avoiding damage without any locate markings at all. Avoiding damage was a function of digging much slower and with much more care to avoid damage. The advent of locates to protect buried facilities increased the production of excavating dramatically by reducing the space where an excavator had to dig much slower to prevent damage. In the early days of “excavating with locates,” most contractors knew that locating was fuzzy science and would generally verify location of facilities prior to going into full production mode. If there was power or gas indicated in a given area, the contractor would not stop looking until they found such facilities no matter what the locate marks indicated. Times have changed. Attitudes have changed.

Excavators Today:

Now, only a few excavators follow the best practice to “verify the location of facilities indicated in a given area no matter how far off locate marks are.” However, even the few that verify the location of facilities without respect to the inaccuracy of locate marks will not look for a facility in their excavation area if the utility owner states it is on the other side of the street. And, by the same token, the locator will not check to see if a utility is actually in the area of the excavation when the utility has provided them this same information. This exact circumstance comes up often across the nation. Readers need to understand that in many respects we were better off when backhoe operators knew that a utility was in their work space, because as they excavate they can see changes in the color of the disturbed soil as a result of past excavations. Today, backhoe operators pay attention to locate marks, not changes in soil color, to determine the location of buried facilities. Most excavating contractors believe it is their responsibility to exercise “hand-dig” care within the tolerance area defined by One Call laws. My greatest fear is that excavators will “only use hand-dig care” within the tolerance area as required by law.

Public Safety And Damage Prevention:

Increased public safety that results from damage prevention will not change until all stakeholders find a way to work together and share the burden and responsibility. I have worked with utilities in the past when they were in very difficult conflict circumstances and, as a contractor, got paid to protect their facilities. Fees for the extra cost of protecting buried facilities were many times less than the cost of the utility having to relocate. Some regions pay the contractor to be responsible for locating and protecting facilities. Design build projects are beginning to show us that shared responsibility for damage prevention can work. Design build functionally works on the “no excuses for damage” premise.

If Change Comes It Will Be For The Sake Of Public Safety:

For the “sake of public safety,” I believe that much more can be done. The contractor is the critical stakeholder because they control the backhoe. We all know that the law alone is totally inadequate for taking us to the next level of damage prevention.

What may work to improve damage prevention is the establishment of “Damage Prevention Partnerships” involving all stakeholders on a project-by-project basis. All initiatives to improve data quality for design are years away if initiated today, but partnerships can be developed for our “next projects.” What is being suggested is the establishment of a formal, legal and binding “Partnership Contract” that outlines the roles and responsibilities of all parties to damage prevention. Today, utility relocation agreements are widely used to pay contractors to relocate facilities on behalf of utilities that are known to be in conflict. The partnership agreement would similarly define responsibilities for dealing with what may not be “known” at the onset of construction. Some funding may be required in circumstances where a utility would “want” to pay the contractor to use additional care to prevent damage either because of a conflict or the fact that the utility is unsure of their location data. It would be likely that the services of a SUE organization would be employed to investigate trouble-some locates as a part of the Damage Prevention Partnership contract. There may be some instances where no money at all changes hands and the partnership contract would simply outline responsibilities of all parties for damage prevention as it applies to a specific project.

Education Is Critical:

One of the best outreach mechanisms around the country are “Excavator Safety Awareness Events” that are sponsored by the One Call systems and utilities. Universally, these safety awareness events provide excavators with information about the One Call laws of the state and sometimes associated topics. The Damage Prevention Partnership described in this article would make attendance at such events a part of the partnership documents to include all personnel on the project, especially backhoe operators. Very often, projects are of such size that a single project could generate more attendees than typically come to such events.

Having personally attended many of these industry Excavator Safety Awareness events, notably absent are the people from the field. It is always hoped that the people who do attend will take the information back to their people in the field, but it is always feared the information provided doesn’t reach the backhoe operator and others. The Partnership would put field workers in the room for Excavator Safety Awareness Events.
In his book “Shop Class as Soulcraft: An Inquiry into the Value of Work,” author Matthew B. Crawford explores the nature of the craftsman and his slow disappearance from the American landscape. A former philosophy professor turned motorcycle mechanic, Crawford notes the particular intelligence and problem solving ability involved in what Aristotle termed the stochastic arts. Defined by the presence of unknown variables, Crawford notes that mastery of a stochastic art can still be “compatible with failure.” Crawford quotes Aristotle on medicine, “It does not belong to medicine to produce health, but only to promote it as much as is possible…”

Consider how the work of the locating technician differs from that of the electrician. The electrician, his work performed in adherence to a code and inspected upon completion, returns home at night and sleeps well, comfortable that he has satisfied the requirements of his job. The locating technician, his work performed on a system he cannot see yet is charged to protect, returns home at night and sleeps poorly wondering if there wasn’t something he missed, some other step he should have taken.

The locating technician works under the pressure of an endlessly ticking clock, pieces of the puzzle he’s asked to solve necessarily absent. Under these circumstances, the locating technician does what he can, like a physician, using his instruments, training and experience to maximize the odds of success in a field with no guarantees and where the penalty for failure can be death.

I recently had the opportunity to volunteer at the 10th Annual International Utility Locate Rodeo in Atlanta. In my role as a scorer, one of my tasks was to help the competitors complete an electronic survey following the event. The survey included a question that asked competitors to rate the difficulty of that event on a scale of 1 to 10. With the good-natured smirk of someone privy to an inside joke, a number of the competitors provided the same answer, “That depends on how I did.”

These were technicians at the top of their professional games, men and women who traveled from all over the country to compete with the best of their peers. Yet, even they were forced to voice the fundamental frustrating truth of the locating professional -- the end results of their best efforts were at least to some extent dependent on variables beyond their control.

The intrinsic uncertainty of locating has forced many technicians to abandon the field for greener pastures, and resulted in many promising careers cut short by superiors who believed that “good” locators don’t get damages. As a society, we recognize that even the best doctors can’t save every patient. Shouldn’t we offer locating technicians that same professional consideration?

Finally, to all the conscientious locating professionals whose self-doubt in the face of unknowable variables leads them to sympathize with the survey response these Rodeo competitors provided (“That depends on how I did.”), let me be the first to say, “You did great!”

Christopher Koch is President of Hance Utility Services and the Locator School. Over the past decade, he has been responsible for the training of locators in 22 states, Canada and Australia. Koch currently serves as President of NULCA and helped craft the 2009 revision to the NULCA Competency Standard. He can be reached by email at Christopherkoch@live.com.
As-Built Surveys: The Benefits of 3-D Laser Scanning

BY MICHAEL TWOHIG • PHOTOS PROVIDED BY MATTHEW BROWN

The role of field surveyors on large infrastructure projects has been on the decline the past few years. Many contractors are now doing their own construction layout using GPS and automated machine-controlled systems to assist the excavators and graders with earth-moving grading activities. However, the role of the on-site field surveyor will again increase in the future with the advent of cost-effective 3D Terrestrial Laser Scanning technology to assist with construction monitoring, construction verification and as-built survey services. From an owner’s perspective, one aspect of any major construction project is the day-to-day monitoring of construction progress by survey crews and the preparation of as-built documents to accurately survey the final placement of structures. This survey service ensures that projects are built to conformity with design documents. Traditionally, land surveyors have used electronic total stations or Global Positioning Systems (GPS) for monitoring. However, in recent years, 3D Laser Scanning or Static 3D Laser Scanning (LiDAR), as it is otherwise known, has become a viable option.

The challenge of obtaining high-quality as-built surveys on active job sites has been the same for many years. The cost of “on-call” survey crews can be more than an owner or resident engineer (RE) is prepared to pay or may not be included in the project budget. Another issue to consider is that the information needed and required from the surveyor on-site is often limited to surveying major structural building elements such as piles, columns, steel members, etc. For those of us involved with heavy construction projects and utility construction work, Laser Scanning overcomes many of the economic, logistical and safety challenges on a job site.

**HOW IT WORKS**

Similar to conventional survey systems, laser scanning begins with the establishment of a Horizontal and Vertical control network, which is often tied into a State Plane or local project coordinate system. The scanner is then placed on a tripod, similar to conventional survey equipment. By using either a typical traversing method or targeting, the survey crew can collect over a million points per setup, capturing points and imagery from all angles. The benefit of the scanner is that every feature that is visible, within range of the instrument, is captured and stored on a laptop or thumb-drive on-site. In contrast, a conventional survey total-station only captures specific points, one-by-one, and is dependent on the surveyor’s discretion and scope of work. However, the points captured by the laser scanner (often referred to as “point clouds”) encompass all features visible at each instrument set-up. From these point clouds, the features surveyed can be seen in 3D and resemble pixels in a digital picture, but with one major difference... these are measurable points.

View of colorized point cloud illustrating construction progress.
processing of the downloaded point clouds enables a survey technician to extract the desired points from the millions of points collected. By using various software packages, a technician can build a 3D model of the features surveyed. On many projects, a comprehensive 3D model is created to accurately represent a site or utility system in great detail and with great precision.

**PROJECT EXAMPLE**

On a recent construction site, the owner decided to utilize a terrestrial laser scanner to survey the progress of an on-going project to periodically document the site work. Using the project survey control network, the survey crew provided one day of laser scanning using a two-person crew approximately every two or three weeks as requested by the site engineer. The survey crew was able to locate most structural, electrical and mechanical features on-site, including piles, concrete caps and slabs, structural walls, various utilities, control boxes and panels, re-bar placement, ground surface and perimeter silt fences and tree lines. Each day on-site, the crew performed between seven to 10 set-ups and collected tens of millions of points per day. In a single day of laser scanning, the survey crew collected a complete picture of the site. In the future, this information may be used in the event the owner needs to verify the exact location of any component of the site or of a certain structure.

**THE BENEFITS OF 3-D LASER SCANNING**

The great benefit of utilizing 3D Laser scanners is that the technology provides survey professionals with an instrument that makes it cost-effective to survey a large complex site, without adversely affecting the construction activities of the contractor. In addition, a laser scanner can survey objects or features that are often inaccessible to a traditional survey crew. This technology mitigates the safety concerns of site surveyors at elevated locations, heavy traffic thoroughfares, and live railroad tracks, or even in deep trench excavations. The collection of millions of points from each set-up provides all stakeholders the ability to access the rich 3D data with free viewers found online, and enables users to query any object in
3D with survey grade (or better) accuracy. The information extracted from the point clouds will be invaluable in the future in resolving disputes between the owner, the RE and the contractor with definitive proof regarding the placement of structures.

In conclusion, the economic benefits of using 3D Laser Scanning will ensure that field surveyors complete as-built surveys quickly and economically. Using Terrestrial Laser Scanning and the post processing of 3D data on active job sites provides true, accurate and reliable as-built data. Accident scenes and site investigations will eventually use Terrestrial Laser Scanning as the preferred method of data collection, given the ability of non-technical users to manipulate point clouds and get a deeper insight into a project or site, far greater than photographs or videos alone may provide. The cost of the hardware and software is now in line with conventional survey equipment and as more professionals find the increase in utilization for scanners, the cost of post processing is now decreasing, making it very competitive to traditional survey methodologies. Finally, as more and more designers in every discipline transition into true 3D design software, the survey data and deliverables from site surveys will need to transition away from 2D hard copy deliverables and into a combination of 2D CADD plans and 3D models.

Michael Twohig is Survey Project Director for Woolpert, Orlando, Florida. He can be contacted at Michael.twohig@woolpert.com or 407-591-5092. Matthew Brown works in Geospatial Services for Woolpert, and can be reached at Matthew.brown@woolpert.com or 407-381-2192.
With recent events in areas all across the U.S., the spotlight has begun to shine on the Onshore Pipeline Industry with increasing scrutiny. As an industry, pipelines in general are the safest means of transportation for hazardous liquids in the United States. Currently, there are over 170,000 miles of regulated liquids pipeline monitored by the Pipeline Hazardous Material Safety Administration (PHMSA). As technology has increased, the ability to model spills for pipelines has grown in both reliability and accuracy. In order to react to oil spills, Emergency Response Plans (ERP) are developed to pre-identify response strategies and location for both personnel and equipment.

Performing Oil Spill Modeling High Consequence Area Analysis (HCA) in advance of an actual release helps identify the quantity of product that could potentially be released, but also identifies the path the product could travel. It is critical that products that are transported in the pipeline be modeled for release. The HCA Analysis is performed on each pipeline to determine specific characteristics of how the product will behave in the event of a release at a given point along the system. Variables, such as product type (crude oil, gasoline, diesel, etc.), topography, elevation and hydrographic features affect how each product is modeled in the event of a spill. Knowing how a specific product will react is instrumental in determining such things as evaporation, adhesion and absorption as it travels down a given flowpath for a spill.

The use of 10 meter Digital Elevation Models (DEMs) to help determine flowpaths allows for a finer resolution (10 meter vs. 30 meter) output, which results in a more accurate flowpath. The 10 meter resolution produces optimal results; the benefit of this approach is that it gives you the ability to determine locations where product can pool or spread out over a given area. These flowpaths are crucial in determining where product could potentially enter a waterway as it traverses along the flowpath. Utilizing the United States Geological Survey (USGS) NHDinGeo dataset to identify where waterways exist provides superior results in comparison to the older National Hydrography Dataset (NHD) data. This new dataset uses an enhanced reference scale of 1:24,000 that is associated with 7.5” Quads produced by the USGS. The more traditional NHD dataset only uses a 1:100,000 reference scale, which is four times greater than that associated with the NHDinGeo. This larger scale results in millions of features being missed if used in the production of an HCA Analysis. These flowpaths are used to deter-
mine the potential impact to HCAs identified by PHMSA in the event of an oil spill. This establishes areas that “could affect” an HCA for a particular pipeline. An important aspect of any HCA Analysis is the ability to determine the time and amount of product that impacts each HCA or any other feature identified with a particular flowpath. Knowing the time that has elapsed and the amount of product left at any given point along a given flowpath is key information needed to determine Tactical Response Locations for a given pipeline.

Emergency Response Plans are developed for large geographic regions that accommodate numerous pipelines carrying a variety of products. As part of the ERP development, Tactical Response Locations are identified to help respond to these events. One of the main objectives of a Tactical Response Location is to know where product (oil) will travel in the event of a release and to send personnel and equipment ahead of the spill in order to stop it. One of the major issues associated with this approach is that, in general, the use of data provided during oil spill modeling (HCA Analysis) is largely ignored or not fully taken advantage of when the ERP is developed.

By incorporating these powerful variables associated with an HCA Analysis, a pipeline operator has the ability to use the output to help narrow down the list of potential locations that could be used for Tactical Response Locations. The use of HCA output features that track both time and product amount along any given flowpath gives the operator the ability to optimize location choices for maximum results over traditional methods used for this determination. Flowpaths can be used to intersect such items as roads and waterways to determine how much time has elapsed, along with the amount of product remaining to help prioritize new Tactical Response Locations for each pipeline in a client’s entire system. By narrowing these locations down to regional or district offices, it allows for a more informed response strategy than traditional methods provide today. Regionalized ERP Plans can provide detailed information for a specific pipeline in relationship to the personnel and equipment needed to respond to an event.

Development of an interactive web-based Response Mapping System can be integrated/linked directly with a database driven Emergency Response Plan (ERP) for rapid analysis in the event of a release is critical to an operator’s initial response. Having the ability to locate the release and then determine driving instructions to the location is one of the key components. With the use of the Response Mapping System, this can be accomplished almost immediately once an exact location has been determined, aiding in the initial response.

The system provides easy access to both your ERP Plan and the Response Mapping System from the same secure-login Web platform. Response Mapping allows the end-user direct access to live mapping hyper-linked to any of your static response maps available in your plan. By incorporating a Live Weather feed which is updated every 10 minutes for display in the system, the end-user also has access to current weather condition, as well as a forecast of upcoming weather to help in planning future actions. The ability to overlay revised or new response locations, current boom deployment strategies, updated resource planning for key components such as command center location, equipment staging, and zone headquarters are just a few assets of the Response Mapping System. This gives operators the ability to keep the corporate office informed at all times of an event no matter where it is located. Real time updates can be posted immediately to reflect the most current conditions in the field. The capability to print and store maps on demand gives an operator the ability to keep all stakeholders apprised of their current situation no matter how often it changes, while at the same time, keeping historical records of any/all changes and updates that happen throughout a response situation.

The question is …. does YOUR HCA Analysis provide the critical information needed to make informed decisions for the development of Tactical Response Locations in your Emergency Response Plan? 📧

Terry Strahan is the Director of Pipeline Integrity Services for Eagle Information Mapping, Inc. He also serves on the GITA Oil & Gas Conference Steering Committee. Mr. Strahan has 20 years experience applying GIS technology to solving real-world problems in various fields, including Pipeline GIS Management and Environmental & Emergency Response. As Director of Pipeline Integrity Services he is responsible for setting strategic direction in regards to Pipeline Integrity Management products and services. He has a comprehensive background in the Spill Response process involving interaction with federal and state agencies, software design and development, GIS technical analysis, project and staff management. Terry can be reached at tstrahan@eaglemapi.com or 281-398-6001, ext. 248.

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Damage prevention has always been an area of focus for the natural gas industry due to its impact on public safety and system integrity. To assist the industry in meeting the challenges of preventing excavation damage to an increasingly congested underground infrastructure, the Gas Technology Institute (GTI) and their partners are developing, demonstrating, and commercializing a range of technology-based solutions that address the most common causes of excavation damage.

**RADIO FREQUENCY TAGS**

Several active research projects are investigating opportunities for leveraging Radio Frequency Identification (RFID) and other smart tag technologies to assist in the accurate location of underground assets. These tags provide several benefits when being used to locate utility lines. First, they are not subject to interference from nearby utility lines or metal structures and do not experience signal bleed-off. Second, their performance is not based on the need for a continuous conductor and, therefore, corrosion or broken tracer wire issues can be averted. Third, tags are tuned to a specific frequency, which means that they can be associated with a specific utility type to provide assurance that the correct utility line is being located. Some tags, called “smart tags,” can store bits of information that can be read from above ground, and most even operate without the need for a battery. While RFID and smart tag technology has been in use for many years, new applications are being developed that further exploit their ability to enhance utility locating operations.

**RFID MARKER BALL PROGRAM**

In 2010, the Virginia Department of Transportation (VDOT) initiated a pilot program to bury RFID marker balls with all new installations on DOT projects, including utility lines that must be re-located to accommodate highway expansions. VDOT has taken the lead role in coordinating the installation of the marker balls with all of the companies that operate utility lines in the right-of-way (see Figure-1). They also collect the GPS coordinates of the marker ball installations and create a map that is shared with DOT utility coordinators and project managers as well as utility companies and their contract locators. This process creates a single map with all marker ball location information.

Matt McLaughlin, the VDOT construction manager that initiated the program, can provide several examples of how the marker balls have prevented a recently re-located utility line from being hit with excavation equipment because the new line had not yet been mapped and was not located and marked. McLaughlin notes, “These marker balls do not supersede any One Call requirements, but they do provide the locator with additional information in case a line is not mapped accurately or is difficult to locate with traditional equipment.”

**SMART TAGS FOR LOCATING DEEPLY BURIED UTILITY LINES**

As part of a project sponsored by the Transportation Research Board (TRB), as part of their Strategic Highway Research Program (SHRP), GTI is developing a system that can install smart tags inside an existing, deeply buried utility line to allow it to be located from the surface. The smart tags do require the use of a battery to allow readings at depths of up to 20 feet, but with an expected life of 15...
years, the technology is the best alternative in some situations.

**RF Tags for Locatable Plastic Pipe**

While truly “locatable” plastic pipe remains a vision of researchers, the recent release of a new warning tape embedded with Radio Frequency (RF) tags gets the industry one step closer. In the near future, 3M will be releasing a warning tape system that utilizes RF tags to create a continuously locatable ribbon. The RF-embedded warning tape can be installed with open trench installations just as it would with standard warning tape.

GTI and 3M have partnered on a project to extend this technology to pipe that is installed trenchlessly. Researchers are developing a mechanism to attach the RF tags directly to the pipe prior to installation. Leonard Phillips, Manager of City Utilities of Springfield, Missouri, notes, "We expect this technology to be very valuable in the future when we need to locate plastic pipe that has been bored-in."

**GPS-Based Excavation Encroachment Notification**

In partnership with the Virginia Utility Protection Services (VUPS) and several technology partners, GTI is developing a system that uses GPS to provide a warning to excavators of encroachment. The system tracks the location of excavation activity and compares it to the location of valid One Call tickets and known utility lines, and creates a notification if digging is occurring in an area where it should not be. At a recent technology demonstration in Virginia, Dave Thompson of Henderson, Inc. stated, "With this system, we can use our on-board software to create avoidance zones around utility lines so that equipment operators can be provided a warning of possible encroachment. We are particularly excited about having the technology available on a mobile device so that supervisors can monitor the excavation activity on a job site." Figure-2 shows a damage prevention application running on an iPad.

Similar technology is also being developed for implementation with other One Call centers that will allow low-cost smart phones and tablet devices to record the location of One Call ticket boundaries through integration with commercial One Call software. The system will be further extended to incorporate the viewing of the location of excavation activity and utility lines along with the One Call ticket boundaries to provide users with real-time situational awareness.

The nature of underground assets will ensure that mapping, locating, and marking utility lines remains a challenge for years to come. However, recent technology advances are providing the industry with tools to decrease excavation damage that will ultimately result in safer communities and working environments.

Alicia Farag, Program Manager at Gas Technology Institute can be reached at alicia.farag@gastechnology.org.
There are a number of solutions and initiatives available to prevent corrosion and third-party damages; however, a good-quality aerial surveillance solution constructed on a cost-efficient platform is paramount to effectively maintaining the integrity and safety of a pipeline.

Although they may vary from one operator to another, the key requirements for a solution can be summarized as follows:

> The operator is looking at enhancing cost-effectiveness of the right-of-way monitoring.

> The detection must be automatic and combined with a reliable threat identification mechanism.

> The automatic detection has to be connected to a near real-time dissemination process that allows the operator to receive notifications with appropriate intelligence so they can take the best possible actions in a timely manner.

> The ideal solution must have enhanced record keeping and archiving, and provide an efficient search of stored survey data.

**SOLUTION EXAMPLE**

There are several techniques that can be applied to solve such problems, however, operators need to look at the combined requirements to obtain a solution that is cost-effective. The defense contractors, for example, increasingly rely on sophisticated airborne surveillance solutions often referred to as Intelligence Surveillance and Reconnaissance (ISR) systems that are tasked to detect and/or track various types of targets, exploit and disseminate intelligence to war fighters. These systems – besides their confidential nature – would probably be capable of satisfying the pipeline operator’s requirements, but they are also loaded with costly features and functionality that are not of interest to the oil and gas pipeline operators.

Solution providers must then carefully analyze the requirements and design a system based on an open architecture, so that sensors can be easily plugged in and exchanged software can be quickly reconfigured, and data formats and protocols can remain the same with the addition of new components to the system.

A solution example is the ATE-AeroSurveillance ARDENT system, shown in Figure-2, which has been designed with these constraints in mind. Each component is carefully selected or designed to be very compact, with low weight and low power consumption. A standard Google Earth-based application or equivalent can monitor the aircraft and send information and storing the survey data, as well as a mechanism to disseminate the data in real-time. While the inherent automation would reduce the labor portion of aerial surveillance costs (i.e., only a remote pilot is required), the solution must be sufficiently low cost to be amortized quickly.

**Figure-1** represents excavation equipment highlighted in red and a typical threat if it is not authorized in this area. The dotted black line shows the pipeline path that is just a few feet below the surface.

Pipelines, whether they carry oil, gas, or other products, are the lifeblood of our modern economies. Monitoring right-of-ways using aerial vehicles – while being conducted today – is more critical than ever, as indicated by recent events and industry initiatives like the Right-of-way Automated Monitoring (RAM) project within Pipeline Research Council International (www.prci.org). According to the U.S. government and industry statistics, the primary cause of damage to pipelines is misuse of third-party equipment like excavation machines, which can damage underground pipes. This is closely followed by corrosion, which can ultimately generate leaks. Furthermore, current or potential threats from criminal activities should be considered, as sabotage or theft can have even more disastrous consequences than those described above.

Any damage to a pipeline can have significant consequences for the pipeline operator. First and foremost, there is a considerable risk of injuries and even fatalities if people are within proximity of a pipeline accident. Second, leaks or explosions can jeopardize property and the environment at large. Third, millions of dollars are required to repair the damage. And finally, the reputation of the operator, and the industry as a whole, are likely to be negatively impacted, with pressure from regulators to improve the quality of preventive measures typically increased at a steady pace.

**SOLUTION REQUIREMENTS**

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alarms as indicated in Figure-3.

The operator control room receives real-time information that allows them to monitor surveillance aircraft and take action when alarms are generated. Alarms are generated automatically without any manual interactions and can be monitored by control rooms that are far away from the aircraft location. No specific hardware or control room infrastructure modifications are necessary.

**SUMMARY**

Solutions like the one presented above exist and can be demonstrated. As technology evolves, other approaches using satellites and unmanned aircraft vehicles will further automate such surveillance missions. It is only within the past few years that sensor and computing technologies, in particular, have been capable of performing detection tasks at a reasonable cost. Today, companies are developing and enhancing new solutions that can be progressively implemented to help pipeline operators improve integrity management, reduce accident risk through effective prevention measures, and improve their financial balance sheet. As pipeline operations deploy smaller systems, surveillance frequency can be increased while keeping operational costs at or below current levels.

Philippe Roy is Vice President - Business & Operations for ATE-AeroSurveillance. He can be reached at philippe.roy@ate-group.com or 978-691-5832.
ISSUESPOTLIGHT

VDOT’s Successful RFID Experiment

BY JAMES ANSPACH AND MATT MCLAUGHLIN

The Virginia Department of Transportation’s Northern Virginia District conducts its fair share of large, complex projects. Although they obtain comprehensive QLB mapping data early in the project (10% stage) for the benefit of their designers, the utilities continue to change during the life of the project. There are invariably utility relocations needed before and during project construction, and due to the 3-5 year design time, utility owners may need to install new utilities in the project as a course of their normal business. VDOT also installs its own utilities during this process.

VDOT was experiencing problems during construction. In addition to the QLB map being out-of-date, significant errors in One Call markings were occurring during project construction. This was causing delays and all the associated other problems. The reasons for this are many, including:

> One Call responders typically consist of one person with no traffic control measures other than safety vests, meaning transmitters cannot be placed in traffic where they may need to be, vaults cannot be opened and utilities individually clamped and traced, and heavy traffic and tired, angry commuters tend to make One Call responders justifiably predisposed with their safety while working in the roadway.

> Utility owner records may not yet be updated and available to the One Call responders, allowing known mismarks to go uncorrected.

> Some utilities just can’t be detected with standard pipe and cable locating tools.

VDOT decided to be aggressive in fixing the problem. They developed a GPS/RFID Pilot Program. For each relocated utility, they are installing a programmable 3M marker ball every 25 feet on straight installations (for both metallic and non-metallic utilities). They are also installing them at every “tee,” crossings of other utilities, service connections, and horizontal and vertical changes of significance. They also install them on any abandoned facilities when they are encountered or uncovered in the field. This gives a fairly robust “point-to-point” picture of the newly installed utility and allows a person in the field and in the office through UtiliMapper software to “connect-the-dots” with an accurate result.

These marker balls are programmable, and include retrievable information on the utility owner, type and size of utility, elevation/depth, GPS horizontal coordinates, and reason for the ball (e.g. “tee,” service connection, change in direction, etc.). Marker balls are programmed in the field primarily through laptop connections, although in some situations, some basic information can also be programmed with the 3M locating wand.

The information is also stored on VDOT’s construction plans in a “pop-up” PDF format. This “as-built” information is furnished to the utility owners on a monthly basis so that they can update their records in a more timely manner. At this time, VDOT is retaining control of the marker ball installation and program functions so that quality can be assured for their project risk management purposes. This may change in the future as quality control and assurances are developed to allow others (utility companies, contractors, etc) to do so.
VDOT is strongly considering requiring the installation of these marker balls in test holes excavated by their SUE firms or utility owners. By doing this, they will begin to build a field-verifiable database of utility locations not only for new utilities but also some existing ones where conflicts were able to be avoided by the design team. Installation protocols, pricing, and data storage and delivery issues will need to be addressed. Making this GPS/RFID program part of the normal VDOT permitting process is the next step.

Although the GPS programmable data will only be mapping grade, the beauty of this system is really for the damage prevention and construction industry. They will be able to use a single one-piece instrument that will get them quite close to the marker ball through coordinates, and then the instrument can zero in on the accurate location, typically within inches, due to the fact that there are no interferences with that frequency in the immediate vicinity if installation protocols are followed. It allows absolute positive ID of the facility, rather than seeing a combined signal or ten different nearby signals which leave multiple interpretations up to the One Call responder.

The cost of the marker balls are small in bulk purchases, and utility owners are on board in purchasing them. Unfortunately, utility locators (companies) are not yet using these marker balls for locating purposes (why, is a big question) even though their use has been well communicated. Fortunately, this lag in use has allowed VDOT the opportunity to actually catalogue literally hundreds of feet of mismarks as One Call responds to actual requests for markings. VDOT has been able to quickly review marks in the field, check them with their 3M locator wand, and see the mistakes in literally minutes, in a safe manner with non-ambiguous results. Although contractors have been dealing with this problem for years, we can now start to actually quantify the depth of the problem.

VDOT is seeing tremendous value in this program. The average cost to install a 24” water main is approximately $145.00 per linear foot. The cost to install RFID tags at a rate of 4 marker balls per hundred linear feet of pipe as previously specified increases the cost per linear foot by a mere 60 cents. The potential for reduction in delays, damages, and roadway tie-ups is immense.

Utility owners are seeing value too. What used to take hours in a congested intersection to scan, identify, and mark an individual utility with no guarantee of accuracy or completeness can now take minutes with assurance that the marks are correct. As routine maintenance excavations, test holes, and other exposures of utilities take place and RFIDs are emplaced, we will begin to build a more complete picture of our underground infrastructure, increasing safety while decreasing costs.

In summary, the combined use of RFID, GPS and UtiliMapper software has provided real solutions to long-standing utility problems. The RFID tags identify the specific utility and records valuable information about the facility. This information can then be obtained in the field as well as in the office via the as-build records. The GPS coordinates are established at each point and with the use of the UtiliMapper software the running line of the utility is established on an electronic mapping layer. This layer can be overlaid on the design files as well as the universal system of Google Maps. So, the combined use of these technologies has created a means to update utility records quicker while increasing the accuracy of the underground locates.

Matt McLaughlin (Matt.McLaughlin@VDOT.Virginia.gov), is VDOT’s Utility Construction Engineer for the Northern VA District. Jim Anspach, P.G. (jhanspach@aol.com) is working with various industries to evaluate the advantages of RFID for utility issues.
Hi-Tech on Display: GITA’s GIS For Oil & Gas Pipeline Conference

BY DICK HENDRICKS

The very latest in mapping and technology products & services will be on display October 24-26, at GITA’s GIS For Oil & Gas Pipeline Conference in Houston, Texas. GITA (Geospatial Information & Technology Association) is assembling oil and gas pipeline industry experts from across North America. The event, considered one of the premier geospatial conferences in the industry, will include a wide array of technical sessions designed to provide real-world solutions to today’s leading challenges, and an exhibit hall with more than 40 companies and organizations displaying state-of-the-art mapping and technology products and ideas.

TECH SCHOOL
Conference attendees will be treated to more than 20 technology sessions, addressing new high-tech mapping & technology products and applications aimed at the oil & gas pipeline industry. Scott Bate-man of Quorum Business Solutions will introduce Microsoft’s new Silverlight web application for mapping that leverages Esri’s ArcGIS Application Programming Interface (API). Philippe Roy of ATE-AeroSurveillance will discuss a novel approach to pipeline right-of-way monitoring that features real-time detection and notification of a variety of pipeline threats using manned or unmanned aircraft.

Alicia Farag and William Gale of GTI will introduce new technologies for field data collection and new methodology for storing and integrating field data, including the use of Apple or Android devices. And, James Skurzunski and Skip Cody of Digital Map Products will explain how GIS and Cloud Computing are coming together, and why that union is benefiting the oil and gas industry.

Other topics scheduled include: establishing a tactical response location to know where oil will travel in the event of a release, using ILI reports to verify and prioritize repairs, using new technologies to evaluate gaps in your MAOP characteristics, and new technologies in mapping that can be used for pipeline management.

MAPPING & TECHNOLOGY SOFTWARE & SOLUTIONS
GITA prides itself on providing “Geospatial Solutions for Infrastructure.” The organization’s 20th Annual event promises to deliver in spades, with a cross-section of hi-tech companies displaying new products, services and ideas. Some of the more interesting displays will include:

CartoPac:
Offering fully-integrated mobile solutions for data capture in the oil and gas industry. CartoPac’s “Field Solutions” software supports APDM and PODS data models. The software allows users to utilize any ArcGIS-compatible data format, such as SDE, PGDB, and SHP, without time-consuming data conversions.

Eagle Information Mapping:
Specializing in GIS technology with software solutions and consulting services for both upstream and downstream energy companies. Eagle will introduce their all-new suite of data input sources that ties into their server-side applications to create a new end-to-end data management life cycle called “gisgap.” This highly-automated software system is designed to close the “gap” (governance automation protocol) in the “gis” (global input surge).

ATE-AeroSurveillance:
Designing innovative airborne surveillance solutions with real-time processing of sensor data. The company will introduce its Airborne Real-time Detection and Notification (ARDENT) system that can be used with manned and unmanned aircraft. This hi-tech solution monitors pipeline infrastructure and detects threats in real-time. ARDENT includes a sensor suite, hybrid sensor/mission computer, mission flight tracking computer (for manned flights) and a satellite communication sub-system.

DeLorme:
Providing data-base mapping for GIS with uses for utility and pipeline field asset management. The company’s new Xmap 7 GIS software suite provides field technicians and GIS managers with comprehensive, shared views of critical infrastructure information, including facility, centerline, in-line inspection and survey data. Xmap’s all-new, form-based editing and collection functionality allows mobile professionals to record field observations and automatically synchronize or merge the data with a master database.

Aerial Services:
Offering digital solutions to compile, organize and review data. The company will promote its award-winning E-Docs Asset GIS, which utilizes spatial search to display data. The system allows you to search for your data visually via spatial components using a map, diagram or other visual. E-Docs Asset GIS recently received one of six inaugural MAPPS Geospatial Products & Services Excellence Awards.

Mustang Engineering:
Pipeline Field Solutions division utilizes a unique GIS tool to assist
Pipeline Engineering in precision mapping, modeling, database building and reporting. Their proprietary MIRG (Mustang’s Interactive Recording and GIS) is an application designed to accommodate the IT needs for Pipeline Project Management and Right Of Way (ROW) research, acquisition, and reporting. By bridging tabular and spatial data, MIRG offers instant project status reporting, data organization, GIS interface, and secure team accessibility.

For more information about GITA, and upcoming GITA events, go to www.gita.org, or contact GITA Executive Director Bob Samborski at bsamborski@gita.org.
There is a new battle brewing in Washington D.C. This battle is not between political parties, nor is it related to economic policy or other topics we hear about daily on the news. This is a battle between three stakeholder groups, the FCC (Federal Communications Commission), LightSquared (a ground and satellite based network and communications company), and the users of GPS. In particular, the issue is between LightSquared’s desires to use spectrum, or frequency range, that is adjacent to the range used by GPS devices.

LightSquared’s 4G-LTE solution would offer high-speed data communications that would directly compete with existing high-speed data providers, including cellular phone networks currently offering various levels of 4G service. Some potential uses have been said to include electronics manufacturers and resellers offering service without having to contract with traditional carriers such as Verizon, AT&T, or Comcast. But, with the delays and inherent initial costs, the delivery timeline for the service is in question.

The LightSquared battle began in 2004, when the FCC granted authorization to LightSquared to use a 59MHz section of the “L-Band” (area which contains GPS signals). This raised some concern amongst GPS users, but there were assurances that LightSquared’s devices would operate at a low power, and would remain far enough away from GPS signals so as to not interfere with the sensitive GPS equipment.

This changed in January of 2011, when LightSquared applied for and received authorization to augment their network with ground-based stations, and allow for the use of non-satellite enabled devices on their 4G-LTE network. With the addition of a ground-based network, as well as the changes to power and proximity of ground stations, stakeholders began to voice their opposition. Amongst the first groups were the US Air Force and the Department of Defense, who were concerned that not enough time had been allowed to confirm the levels of interference with their uses of GPS.

Since then, there have been numerous Congressional hearings and a great deal of testimony by both sides of the issue. Initially civil, the issue has grown contentious with blame being thrown in both directions. From claims that the GPS community failed to react early to improve devices, to allegations of cronyism, this is one of the quietest and most contentious storylines in D.C. at the moment. LightSquared is quoted as saying, “The commercial GPS industry is a little like a homeowner who builds his patio on a neighboring lot because he assumes nobody will ever move in and then gets upset when a construction crew shows up one morning and begins work on the new house next door.” (Source: The Spectrum Story from www.lightsquared.com)

A group of stakeholders has formed on the opposite side of the issue. The Coalition to Save Our GPS is an organization made up of GPS users. The group’s membership ranges from the Agriculture Retailers Association to the Aircraft Owners and Pilots Association to the American Petroleum Institute. Other Damage Prevention partners that are a part of the coalition include: AGC, Edison Electric Institute, ESRI, Garmin, NRECA, NUCA, CartoPac Field Solutions, and Trimble. The Wisconsin Department of Transportation is quoted as saying, ”If allowed to continue with its plans, the interference created by LightSquared would endanger the use of GPS in civil, military and commercial sec-
What You Need to Know
This issue affects Mobile Broadband (Cellular and Satellite Data Communications) and GPS (Aviation, Agriculture, Locating, Survey/GIS, etc.). Terms you should understand include:

- **L-Band** – 1 to 2 GHz range of the electromagnetic spectrum which carries technologies such as GSM cell phones, GPS, GLONASS (Similar to GPS), and other forms of communications.
- **Global Positioning System (GPS)** – A space-based network of satellites which communicate with ground/air-based receivers to determine such things as latitude and longitude position, elevation, exact time, and other information. The accuracy of this information is partially determined by the amount of satellites the ground station receives from, and the further correction of data collected.

As of today, the battle is still being waged by both sides. In August, the FCC’s technology chief requested that both sides submit information related to the potential interference. This included a list of devices and the expected remaining lifespan of devices that may experience interference from LightSquared’s proposal. And from LightSquared, a detailed list of the proposed, scaled-back deployment of ground stations. Further, the FCC indicated that LightSquared may not be allowed to proceed with the current proposal if they are found to interfere with GPS systems.

With many innovations and productivity improvements just over the horizon, the excavating and facility owner/operator community will need to pay close attention to the LightSquared battle. One lesson to be taken from the battle is that as the Damage Prevention Community continues to innovate and rely on technology, the scope of concern and awareness needs to expand.

Brad Johnson is the National Account Executive for Powel, Inc., a GITA member and CGA participant. He has been in the Technology business for 11 years and has 4 years of experience working in the Utility industry with a focus on Damage Prevention, design, integration and work management. He can be reached at Brad.Johnson@powelinc.com, or 612-695-6112.

**BRINGING THE ISSUE CLOSE TO HOME**

At this point, you may be asking how this discussion impacts the damage prevention community. With recent innovation by technology companies serving stakeholders, the reliance on high accuracy GPS has never been higher. Some facility operators now use GPS as a form of facility locating, shortening the overall locate process by bringing the locator to the facility faster than with paper maps. In many states, the use of polygons with the One Call Center relies on highly-accurate, as-built GIS databases to ensure proper notification by the center. The next generation of Damage Prevention Technologies in development by numerous companies would use mobile devices to provide moderately accurate sets of points to define the area of excavation, increasing the quality of a One Call ticket.

As of today, the battle is still being waged by both sides. In August, the FCC’s technology chief requested that both sides submit information related to the potential interference. This included a list of devices and the expected remaining lifespan of devices that may experience interference from LightSquared’s proposal. And from LightSquared, a detailed list of the proposed, scaled-back deployment of ground stations. Further, the FCC indicated that LightSquared may not be allowed to proceed with the current proposal if they are found to interfere with GPS systems.

With many innovations and productivity improvements just over the horizon, the excavating and facility owner/operator community will need to pay close attention to the LightSquared battle. With the potential for expensive GPS equipment to be made as accurate as a car-based GPS, those who rely on this accuracy may need to prepare for the transition to a new method of location point gathering.

One lesson to be taken from the battle is that as the Damage Prevention Community continues to innovate and rely on technology, the scope of concern and awareness needs to expand. Gone are the days of worrying only about State and Federal regulators and audits. A broader view of legislation, non-energy regulation, and technology is needed in order to remain safe, and prepared.

To stay on top of this battle, check out Coalition to Save Our GPS at www.saveourgps.org, and LightSquared at www.lightsquared.com.
New Mexico’s Damage Reporting & Enforcement

BY GARY SLOMAN

New Mexico has achieved steady progress on improving damage prevention in our state. We’ve come a long way, but still have further to go. The next frontier is getting stakeholders to change behaviors to comply with the applicable laws and the best practices. This is a task that seems especially daunting due to the many diverse stakeholder groups and the various states of emotional shock individuals within these groups are in because of all that is changing, and has changed, around them. The Damage Reporting & Enforcement Tracking System is to help individuals through the change process until they come to the point of acceptance. It is not meant to be a punitive process, but one that encourages people to change behaviors to support damage prevention and public safety procedures. If abuses of the law continue after opportunity is given to change, then the process will become punitive from a cost perspective.

The best way to help people change behavior is with facts and data that show the unintended consequences of a behavior if left unchecked. Every incident is reported and a record is created that details who, what, where, when, why, and how. Using investigative protocols, a determination is made of whether the existing laws, industry practices, and procedures have been followed. The difficult part is getting information from all the parties involved and then isolating the facts from opinion and innuendo in order to determine the root cause (or the behavior) of any incident. Past experience has shown that people are reluctant to report damages, and if they do, they routinely withhold information, thinking this will help protect them from liability or fines.

New Mexico wanted to develop a system whereby the record could also be used to show that a stakeholder was in compliance with the law and procedures and that the stakeholder has a history of doing what is right, as well as when they made a mistake. We believe there are more people trying to do what is right than wrong. Transparency is a concept we employed to make the record, good or bad, open to the public. The record will document what you’re doing and not necessarily what you’ve been saying. Easy access and query capability of the record makes it possible for any stakeholder to examine the record and determine if someone has made an isolated error or has a history of blatant disregard for the process or the law. In such cases, if the stakeholder observes the offender is not accountable for their behavior, or if the State of New Mexico, the One Call center, or any other stakeholder is not doing their job, the record can be used to draw attention to the issues and pursue action against the offender who demonstrates a blatant disregard for the safety of the public. The stakeholder is no longer dependent on others to correct the offender’s behavior. If the current incident is significant, you can be assured the “court of public opinion” will weigh in on the matter and demand behavioral changes.

How does New Mexico propose to accomplish this? We have hired a software firm to program the described functionality. The system is a real-time, web-based application accessible to anyone who has registered with the system administrator. When damage occurs, the excavator must stop digging, report the damage to the One Call center, to the facility owner, and to 911 if appropriate. The One Call center creates a damage ticket based on the information provided and notifies the affected underground facility owner(s). A copy is also sent to the State Pipeline Safety Bureau. When the damage is reported, the excavators’ contact information is automatically pulled from the One Call center’s data bases. A new case file is created that
Know what's below. Call before you dig.

also includes the contact information for the facility owner, the location and, if known, the original ticket number the excavator was working under when the damage occurred. The case file is assigned a case number, which is the same as the damage ticket number, allowing information to be retrieved and sent to the case file. One advantage of this process is that the state now knows when damage occurs almost instantaneously, because the state inspector will get a notice of the damage ticket on his cell phone. The inspector can then look at the ticket as an attachment on his phone and know where, and who, is involved. He can also visit the site to begin his investigation before things are moved, covered up, or lost.

Before HB 500 passed the legislature, it used to be 30-45 days after an incident occurred before the state received the information from the facility owner who had to file a report. The information was often incomplete, the excavator was unknown, and the circumstances were long forgotten or obliterated. This made it nearly impossible for the state to assign culpability for an incident because they could not prove anything, using their protocols, without the information. Violators were not prosecuted because no substantial case could be made. The result was that many stakeholders felt the state was negligent in enforcing the law. With the new Damage Reporting & Enforcement Tracking System, the case file is created instantaneously. In a matter of minutes, the state knows about the incident and can assign investigators. Even better, the Bureau Chief now knows how many cases are pending and completed, as well as the workload of each investigator.

The case file is accessible over the web by inputting the damage ticket number. The file consists of an official form, similar to CGA’s DIRT form, but with several enhanced fields and submittals made by individuals in various stakeholder groups. Submittals range from sound files of the conversations with the One Call center, pictures of the incident, statements, affidavits, drawings, etc. Almost anything that can be made into a PDF or other compatible file can be submitted by simply attaching the document to a URL address and including the damage ticket number. Similarly, every record submitted can be reviewed by any stakeholder with a user name and password. The record will indicate who submitted the information, who is looking at the information, and the date/time stamp of the activity. The records cannot be changed, other than the official investigation form, which only the investigator and the Bureau Chief can change as the investigation progresses. At this point, we have not set limits on the size or quantity of files that can be submitted. The transparency feature will make it obvious to other stakeholders who is abusing the system and trying to persuade the outcome rather than just providing the facts.

While this process may seem to duplicate what the CGA is doing with the DIRT process, it does not. DIRT is about reporting incidents, and there is a certain level of anonymity prescribed to the users of the data. There is no anonymity with our system. The system captures the investigator’s official findings and it is open to all to review the records without permission of the submitting party. How does New Mexico allow this approach? Since the Public Regulation Commission (PRC) is given statutory authority to investigate and administer the excavation law and everything submitted to the PRC, by law, is public information, the records are public. Because of transparency, it is easy to submit and review information without making lengthy and justifiable information requests. Sunshine laws and transparency are moving to the forefront in many areas of government. If you don’t want someone to see what you have submitted, then don’t submit it. But if you try to hide information and it is discovered, you will be adversely affected.

The system has the ability to retrieve and sort data based on standard queries. If you want to look at a particular company, particular area, particular root cause or other fields, it is doable simply by defining the parameters. Trends, root causes, and other information can be gleaned to improve the education effort, public awareness, and compliance. Pending files are always active. Closed files are accessible for a 5-year period after closing. Archived files can also be retrieved and queried if needed. The system is expected to be available by the end of 2011. While all this seems fairly straightforward, it will take some time to accomplish. During the last legislative session, New Mexico HB 500 passed, which set up the legalities and requirements for requiring damages to be reported, and for the One Call center to gather that information and disseminate to facility owners. The next process is for the PRC to issue a notice of proposed rule-making to adopt specific rules about how the process will be administered. The process has already begun informally in an attempt to build a large consensus for the proposed rule-making. The official filing should be forthcoming in the fall of 2011, and adoption of the rules is expected in the first quarter of 2012. Once that is accomplished, training materials and publications about the process and how to use the system will be conducted. Our hope is by the end of 2012, we will begin to see reliable data and trends to help us both analyze and increase our damage prevention efforts here in New Mexico.

Gary R. Sloman is the Executive Director, New Mexico 811. He may be reached at gary.sloman@nmonecall.org or 505-254-7303.
As part of its Operations Best Practices program, the American Gas Association (AGA) conducted a three-day roundtable for its member companies on August 23-25, 2011, on the topic of “damage prevention and marking & locating.” Attended by 67 representatives of natural gas utilities from across North America, the meeting was held at the corporate offices of CenterPoint Energy in Houston, TX. AGA’s Best Practices program is 21 years old and is used by participating companies to benchmark their performance in a variety of key operational areas such as external corrosion prevention, leak survey, pipe replacement, and damage prevention. For each topic, data on a set of key performance indicators is collected by AGA and industry leading companies are then identified based upon a combination of optimal performance and low costs. Leading companies are invited to share strategies and practices critical to success at subsequent roundtable meetings. These meetings are attended by natural gas utility subject matter experts who gather to discuss operating challenges and share practices that have proven effective.

Companies giving formal presentations at last month’s meeting included:

~ Baltimore Gas & Electric (BG&E)
~ Philadelphia Gas Works
~ Southwest Gas
~ Northwest Natural
~ Alabama Gas
~ Central Hudson Gas & Electric
~ Williams Gas Pipeline
~ USIC Locating Services

Of particular interest, Marc Haines of BG&E described how Maryland stakeholders worked collaboratively to pass a new state statute on Damage Prevention in 2010. The new law was the culmination of a nearly four-year process managed by the Title XII Steering Committee, comprised of representatives from a wide array of stakeholder groups, all with the common goal of bringing Maryland’s damage prevention law into alignment with the 2006 federal pipeline safety legislation and its “nine key elements” for an effective damage prevention program.

Also, Mary Bartholomew of Southwest Gas gave a presentation reviewing the various methods the company uses to reduce the threat of excavation damage, including a discussion of its sewer lateral investigation program used for detecting and eliminating cross bores within the system. Also shared was the various damage data collected by the company, how it is analyzed, and educational materials used to inform the public and contractors.

Participants are also separated into smaller groups for open roundtable discussions.

Roundtable discussions focused on a variety of topics within damage prevention and marking & locating of infrastructure.

Popular topics under Damage Prevention included:

- Strategies in educating excavators on state One Call laws
- Strategies in promoting 811 to homeowners and the general public
- Leveraging CGA best practices
- Working with local municipalities to minimize 3rd party conflicts
- Using key performance metrics
- Addressing frequent damage, particularly in areas with limited enforcement over excavators
- Developing an effective damage claims program

The most popular topics under marking & locating included:

- Managing contract locators
- Meeting seasonal work volumes
- Strategies in managing large projects
- Developing quality assurance program for locators
A set of leading (or “best”) practices were produced by each group, which can lead to superior performance. Participants were very passionate about this topic and spirited discussions occurred throughout the session. As is often the case for these types of industry meetings, there is also tremendous value in networking and developing contacts at other companies which will be a resource for future needs.

As a sidebar, great progress has been made over the past ten years in reducing excavation damages made to the natural gas infrastructure in North America. The credit for this accomplishment must be shared between utilities, utility excavating contractors, utility locating contractors, One Call centers, federal and state regulators, equipment manufacturers and, of course, the Common Ground Alliance. Working together to develop effective state damage prevention programs is critical in order to continue our progress.

Andrew Lu is the Managing Director of Operations & Engineering Services for AGA. He can be reached at 202-824-7341 or alee@aga.org

The Conference so complete that 91% of attendees will recommend the event to others in the industry!
One Call Systems International (OCSI): Guidelines for Participation in State One Call Associations

GARY HANSEN

One Call Associations provide a valuable service in notifying participating underground facility owners of planned excavation projects. These notifications occur as a result of excavators submitting requests to have underground facilities located and marked before excavation begins, in an effort to promote public safety and avoid damage to underground facilities and service interruptions.

One Call Associations have been approached on occasion by entities not associated with underground facilities, such as the Environmental Protection Agency (EPA), who want to participate in the One Call process, such as being notified when excavation occurs on property that is involved with some type of contamination.

Most recently, One Call Systems International (OCSI) received a request from the Department of Defense – US Army Corps of Engineers wanting to be contacted anytime an excavator submits a locate request involving property identified as a “formerly used defense site” (FUDS).

As a result of these types of requests, OCSI compiled the following guidelines to be used by entities in determining eligibility for participating in a One Call Association. The following guidelines were presented and approved by committee members at the OCSSI Committee Meeting held in November of 2010:

- Requesting agency responsible to establish membership individually with each applicable state One Call Association
- Determine who will be the actual Member in the applicable One Call Association (Hazardous Owner, EPA, DoD, etc.)
- Reference applicable One Call Association’s number as only number to contact. Do not require excavator to contact agency (Hazardous Owner, EPA, DoD, etc.) directly using a different number
- Determine who is going to respond to Excavator’s locate request ticket (Hazardous Owner, EPA, DoD, etc.)
- Requesting agency responsible for costs associated with membership and participation in applicable One Call Association
- Requesting agency responsible to establish the notification area to be used by the applicable One Call Association in contacting the agency upon receipt of proposed excavation activity
- Requesting agency to provide a “hold harmless” clause for Excavators, Operators, and applicable One Call Associations for the agency’s failure to comply with state One Call laws and One Call Association policies
- Requesting agency responsible to utilize Positive Response procedure if such application is in use by applicable One Call Association
- Requesting agency participation in applicable One Call Association contingent upon individual state One Call Association Board’s approval

OCSI encourages any entity interested in participating in the One Call process to contact the local One Call Association in the state they are affiliated with for additional information. Comments or questions regarding this article should be directed to the one Call Systems International (OCSI) Committee of the Common Ground Alliance (CGA). Current Co-Chairs of the OCSI Committee are Don Heyer, Operations / Public Relations Manager of USA North, dheyer@usan.org, and Dan Meiners, Executive Director of Underground Safety Alliance (USA811), dmeiners@undergroundsaftyalliance.org.

Gary Hansen is the Executive Director of Utah Utility Notification Center and can be reached at garyh@bluestakes.org.
Paul Jr. Designs to Unveil “811 Bike” in Ocean City, Md.

One Call Concepts, Inc. is pleased to announce it has commissioned Paul Jr. Designs to create the “811 Bike.” Paul Jr. has created some of the most recognizable themed choppers in the world.

The Paul Jr. Designs team will unveil the 811 Bike for the first time at the 2011 Greater Chesapeake Damage Prevention Training Conference, held Nov. 2-4 at the Clarion Resort Fontainebleau Hotel in Ocean City, Md.

Scheduled speakers at this conference include CGA’s Khrysanne Kerr, PHMSA’s Sam Hall, and Eric Giguerre of Safety Awareness Solutions, who will speak about his harrowing experience being buried alive in 2002.

To register for the Greater Chesapeake Conference, visit www.missutility.net and click on the banner in the upper-right corner of the home page.

Laredo’s Texas Sized 811

Anyone driving along I-35 in Laredo, Texas, is sure to notice the Texas-sized National 811 logo installed on the 30,000-barrel storage tank owned and operated by NuStar Logistics, L.P. This 8/11 Day dedication was made by NuStar to raise awareness about damage prevention.

NuStar has a comprehensive program to promote public awareness and chose to profile an 811 campaign this year in Laredo due to the thriving diversity of its population and commerce. Interstate 35 is a major thoroughfare for millions of people, including commercial traffic going to and from the Gateway City each year. The saying that “All Roads Lead to Laredo” has gained support from a recently released report naming Laredo as the largest land port in the country.

As a major commercial hub, Laredo has continued to grow even during the country’s economic hardships. Its population has increased by 25% since 1990, and is expected to increase another 11% by 2014. This means more houses, businesses, utilities and infrastructure. With NuStar’s product tanks being located in a prime location, it was a great way to promote safety in damage prevention.

3M Promotes 811 to Millions Through Biffle Partnership at Pocono

For the second year in a row, CGA member 3M incorporated the 811 message into its sponsorship of the No.15 Ford Fusion driven by Greg Biffle during one of the major CGA outreach initiatives.

In 2010, 3M featured the logo on various spaces on the car during National Safe Digging Month, and this year 3M offered space for the 811 logo right before CGA’s second major push of the year, 8/11 Day (Aug. 11).

It was a successful day on the track for the 3M team on Aug. 7, at Pocono Raceway in Pennsylvania, as Biffle battled back from a tough start to finish in 8th place. It was also a big day for damage prevention. More than 5 million viewers watched the race, and Biffle made sure to sport an 811 hat during a pre-race interview on ESPN and talk about the importance of calling 811 before digging.

The official program at the race referred to the car as the “3M-811,” which encouraged members of the media to call it that as well. The exposure wasn’t just limited to race day. Pre-race media outreach led to media coverage of the 3M-811 car, including exposure in NASCAR outlets such as SpeedwayMedia.com and PaddockTalk.com, as well as outlets that reach the CGA stakeholder groups, Trenchless Technology and Equipment World.

“3M is proud to support the ‘Call 811 Before You Dig’ message, and our alliance with Greg Biffle created another way to raise awareness of this important safety issue,” said Rory Yanchek, General Manager, Track and Trace Solutions at 3M.
“I’m in awe,” said Bob Kipp, Common Ground Alliance (CGA) President, when learning that visits to call811.com on 8/11 Day (Aug. 11) were up 72 percent from the same date last year, the previous best in the website’s history.

“Five years ago, the date of Aug. 11 was meaningless to most Americans,” said Dan Maschka, Northern Natural Gas and co-chair of CGA’s Educational Programs Marketing and Membership Committee. “But not anymore,” he added.

The rally cry issued to CGA’s 1,400 members three years ago to support Aug. 11 as 8/11 National Damage Prevention Day has risen to epic proportions in terms of events, media saturation and internal education. Preparations began in the spring when CGA learned that 3M would once again highlight the 811 logo on the No. 16 Ford Fusion racecar, driven by Greg Biffle at the Pocono Raceway on Aug. 7.

“We knew media opportunities would present themselves at this venue as Biffle won that race last year,” stated Corey Willson, 3M and CGA Board Member.

Biffle was interviewed on ESPN pre-race, sporting an 811/3M ball cap. The 811 logo was strategically placed on the hood, decklid and camera panel enabling the almost 5.5 million viewers an opportunity to view it.

As the race ended, the CGA membership was just beginning their efforts to make 8/11 Day a record-breaking 24 hours. More than 50 early-risers donned their 811 T-shirts throughout the streets of New York City with their final stop being the rope-lines at the Today Show. A sea of lime green shirts could be seen by the more than 5 million viewers.
of the show. A few members of this group also made their way into outdoor shots at Fox News Channel’s Fox and Friends, exposing another 2 million to 811.

“The grassroots efforts the membership undertook were just phenomenal,” stated Kipp. “We saw promotions at Major and Minor League Baseball venues, social media outreach, web banner advertisements on major network affiliates’ web sites and deliveries of 811 cakes to radio stations.”

Administrator Cynthia Quarterman of the U.S. Department of Transportation’s Pipelines and Hazardous Materials Safety Administration served as the featured speaker at an event in Illinois co-hosted by JULIE and the Illinois Commerce Commission, attracting media coverage in that state.

Another successful tactic included more than 280 companies ordering 25,000 T-shirts to show their support in the office, the field or at a media event. In addition, the Mark-it Madness group partnered with www.iwearyourshirt.com for a widely successful viral promotion of 811.

Many stakeholders participated in promoting Marco’s Pizza’s $8.11 offer on 8/11, which returned after a successful run during National Safe Digging Month.

“I just can’t wait to see what everyone comes up with for next year!” said Kipp.

HIGHLIGHTS:
> 280 companies ordered 25,000 8/11 Day T-shirts
> www.call811.com traffic on Aug. 11, 2011, increased 72 percent compared to the previous best day ever for the site – Aug. 11, 2010
> More than 200 social media posts via Facebook, Twitter and LinkedIn
> Exposure on NBC’s Today and Fox News Channel’s Fox and Friends that would have cost $350,000 to purchase
> Photo and tagline on the Today Show blog www.allday.today.com
> Nearly 100 local TV segments and more than 300 local newspaper/online stories
> Exposure on ESPN’s SportsCenter and Baseball Tonight
> More than a dozen baseball promotions
> One more storage tank featuring the 811 logo
> One parody of the Blondie song “Call Me”
I Wear Your Shirt, You Call 811 Before You Dig

/ BY MEGHAN CHESTNUTT

During the spring One Calls of America Meeting, in which Mark-It Madness (MiM) is a part of, Cheryl Ritter of Sunshine State One Call brought the idea of www.iwearyourshirt.com (IWYS) before the group. The concept was straight forward, five people would wear an 811 shirt on August 11, and each person would make a YouTube video about our “Safe Digging” message. Also, each of the five would post photos, incorporate our talking points into their live broadcasts and share our message across their social media outlets that day. Seventeen One Call Centers across the US agreed to participate in this unique marketing opportunity: AL, AZ, FL, GA, IL, KS, MI, MO, NC, NY, OH, PA, TN, TX, UT, VA, WI. Since many states were involved, people were directed to the Call811.com website for more information.

“This created a day full of creative and unique social media interaction for all stakeholders to utilize, and we have the added bonus of the YouTube videos for future use,” explains Meghan Chestnutt, Chair of MiM.

Additional interactive features were added to the day by offering a drawing to give away an iPad2. Anyone who tweeted a message with #Call811 was entered to win the hash tag contest. A surprise bonus was given to the 811th tweeter who shared #Call811 with their followers. The iPad winner tweeted from California and the 811th tweeter, from Georgia, won a $100 gift card.

“According to Jason Sadler, company founder and professional t-shirt wearer of IWYS, the #Call811 hash tag contest was one of their best ever in terms of participation. By noon on August 11, we knew we had the 811th tweeter winner,” Chestnutt explains. “And the day was only half over. By the end of the day, there were 3,946 people who had sent #Call811 to their followers.”

“Total impressions for the day, August 11th, generated strictly from the IWYS outlets exceeded 75,000. That included YouTube videos viewed, watchers of the live broadcasts, those viewing photos, Facebook, twitter, etc. Each state participating promoted the event to their stakeholders, and this added to the 75,000 already mentioned in the IWYS reach, and as each One Call centers’ membership shared the information, the number reached grew again,” Chestnutt added. “Overall, we were very pleased with how things went. We loved the creativity and we’ve already booked August 11, 2012. Between now and then, we will enjoy sharing the YouTube videos created by the IWYS team.”

All the creative components from the IWYS team can be found at this link: http://www.iwearyourshirt.com/calendar/2011/august/11
The Excavation Safety University
Webinar Series

Upcoming Topics Include:
- Damage Investigation
- Subsurface Utility Engineering (SUE)
- Utility Locating 3-Part Series:
  (also available individually)
  - CGA Locating & Marking
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One of the primary focuses of the Common Ground Alliance, CGA, is to create public awareness tools, campaigns and events in an effort to assist members in reducing damages to the nation’s infrastructure. One of CGA’s committee-based efforts for 2010 was to create an educational video that explained the damage prevention process.

Numerous proposals were reviewed by the video task team, which is a subcommittee of the Educational Programs, Marketing and Membership Committee. The unanimous decision came to partner with North By Northwest Productions, NXNW, who was the creator of the children’s pirate video released in 2010. Concept creation, scripting and casting began in the early part of January, with filming taking place in June.

“The initial creative concept was to bring the utilities to life and personify them to present the message of safety,” said Tracey Bryant, Vectren Energy Delivery and task team co-chair. “We listened to the CGA membership who indicated they didn’t want just another video of digging holes.” The video host, nicknamed ‘Red’ and personifying electricity, begins the safety journey at an underground board meeting with colleagues Orange, representing communications; and Yellow and Blue, who represent oil and water -- and obviously don’t mix.

The entertaining and light approach to safety awareness focuses on the five steps to safer digging throughout this 12:30 video. It is peppered with relevant safety information when digging in both urban and rural settings as well as the agricultural community.

“We tested this video in several environments to ensure learning objectives were met,” stated Bryant. “The result was an overwhelming success of moving the needle of the knowledge base of damage prevention.” The video was shown to multiple groups of CGA stakeholders in the northwest, including professional excavators, locators, One Calls and utility operators.

“Although it tested well, feedback indicated an additional need for a more serious and in-depth public awareness video,” said Patti Lama, Portland General Electric and task team member. “As a member-driven organization, we took that feedback to heart and went back to the full task team for another review,” she added.

Because the initial production was flexible by design, the team had an opportunity to change course and create an additional informative and engaging safety awareness video for professional excavators. “In essence, the membership will be getting two for the price of one,” said Lama. “The task team feels that we now have additional resources to reach those new to digging and to broaden the knowledge base of long-time industry professionals,” she added.

Both videos will be available by the end of September for a nominal cost-recovery fee plus shipping and handling. In addition, members will be encouraged to stream both videos from their websites, link to them from social media sites and place on industry association micro-sites in an effort to broaden its electronic and viral reach.

For more information on ordering the video; visit www.call811.com. Active Task Team Members: Tracey Bryant, Vectren Energy Delivery; Dan Maschka, Northern Natural Gas; Craig Potts, Marathon Pipeline; Scott Berry, AGI; Eben Wyman, NUCA; Scott Landes, Rhino Markings; Patti Lama, Portland General Electric; and Khrysanne Kerr, CGA
In August of 2010, Texas811 President Lee Marrs pondered at his desk, “I wonder what it would take to have a license plate developed that would help us promote the nationwide call-before-you-dig 811 number, and the message of damage prevention?”

The establishment of 811 as the national call-before-you-dig number in May 2007, allowed stakeholders to collaborate on a national campaign promoting one number. The designation and launch of 811 provided a significant and rare opportunity for the call-before-you-dig process to gain national attention. A little over a year ago, Texas Excavation Safety System (TESS), which had forever been known as Dig-Tess, changed its logo and incorporated the 811 into its name, becoming Texas811 to show support for the nationwide number. Now it was time to take promoting 811 in Texas to the next level.

Texas811 Ombudsman, Jennifer Connally made first contact with a representative from MyPlates. MyPlates is a vendor for the Texas Department of Motor Vehicles (DMV), which offers specialized and even personalized license plates that allows Texans the opportunity to show their support or interest in things other than the norm. Within days, Lee, Jennifer and the My Plates representative began working on the initial design. By the middle of September, the final proof had been agreed upon and an application for the proposed new plate was submitted. Now the real process begins!

First off, the DMV would have to make some sample plates. These would be tested for reflectivity and legibility. Each plate would also have to be tested on toll way cameras. They would even have to make sure that the plate could be produced in the Texas prison system! These various steps in the process would take over two months. Once these tests were completed, the plates then went public for the first time in late November, on the MyPlates.com website. The plates would be displayed there for public comment, prior to the DMV Board Meeting, which would be held in early December. This is when we actually began promoting the plates to our membership and other interested stakeholders. Thanks to the support of those folks, the plate won overwhelming public approval and was also approved by the DMV at their December meeting. At this time, we actually began marketing the specialty plate.

In May of 2011, the public was finally able to go online at MyPlates.com and pre-order their plate, with the plate becoming officially available on May 31, 2011. The specialty plates were offered to every employee of Texas811 (for the first year) in an effort to help spread the message of damage prevention. Texas811 is proud that Texas is the first state to pursue this initiative, hoping many other states will follow suit in the near future. We are also proud to display the Nationwide three-digit 811.

So, if you live in Texas, help us “drive home” the message of damage prevention. Go to www.MyPlates.com and order yours today. Know what’s below, call before you dig!  

Texas811 License Plate
Dig Safely New York’s Mobile Interactive Damage Prevention Display Vehicle

BY KEVIN HOPPER

AN INDUSTRY FIRST! There was a time not so long ago, when explaining the existence of the underground utility lines and the need to protect them by calling 811 before you dig was very textbook in approach, as the process lacked the visual and hands-on learning aspects necessary by many to really retain the message.

Like many others involved in damage prevention education, our approach was very similar to what had been done over the years. We would roll out our typical trade show display with banner stands and signage supporting the safe digging message. The difficulty has been engaging the audience in damage prevention with a handout or brochure. Just how effective are these materials in demonstrating the importance of safe digging? What impact do these materials have in creating a lasting impression?

In contrast, many electric companies have overhead electric live line demonstrations to really catch the attention of an audience at a trade show, fair, or other venue. If you have watched a demonstration, you will remember the story of the squirrel who ventured too close to the electric line. The question was how do we make the underground come alive and create those lasting impressions? That challenge was the goal and inspiration behind the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration’s 2011 State Damage Prevention Program grant submission by Dig Safely New York, Inc.

Dig Safely New York, Inc. proposed the fabrication of an interactive underground damage prevention mobile exhibit, the first of its kind in the damage prevention industry. This colorful and educational moving display is providing the underground damage prevention industry with a creative and innovative approach to damage prevention awareness. It is comprised of many attention-drawing features, such as branded bill-
boards and a custom interactive digging experience, which highlights the consequences and inconveniences of unsafe digging. The display provides the opportunity to engage the audience and put a shovel in someone’s hands. The person holding the shovel immediately learns the consequences of hitting an underground line if they fail to call before they dig. The digging area is set up with a line of pressurized air or water to simulate the hitting of a gas line or water line. Either can be released as soon as the shovel is put in the ground, creating a memorable digging experience. Additionally, the exhibit is set up to look like the inside of someone’s living room. The display also demonstrates the inconveniences of being without cable or electricity, as the main power to the trailer can be shut off or the television can go static if they dig into the associated utility line.

The exhibit also assists the audience in recognizing some of the common components which indicate the existence of underground utilities. A gas meter, electric meter and communication service installations are included in the exhibit as part of our exterior home wall. The display also provides the ability to actually visualize the underground infrastructure in the interactive floor. The floor of the exhibit is recessed and covered with a clear acrylic, which allows the viewer to stand directly above the buried utilities found in a common trench. The visual experience reinforces the importance of having underground utilities marked.

To expand the learning experience, a large LCD TV is mounted to the back wall to allow for video presentations. Utilization of the mobile exhibit trailer has allowed for a more interactive and hands-on experience with underground damage prevention. This display vehicle has already been traveling across New York State and engaging audiences in an unforgettable educational experience. An individual, having the ability to see firsthand what can happen, walks away with the lesson of Call 811 Before You Dig. The days of just textbook learning about underground utility lines have evolved into this mobile exhibit experience.

I would like to thank Purdy Built by UPSCO for the complete fabrication of the trailer, Voss Signs for creating the visual experience with the trailer wrap, and especially the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration for their assistance in bringing this idea to completion.

Kevin Hopper is the Operations Manager for Dig Safely New York. He can be reached at kshopper@digsafelynewyork.com or 315-437-7394 www.digsafelynewyork.com

Check out the Dig Safely New York’s Interactive Damage Prevention Display Vehicle on our YouTube Channel, www.youtube.com/DigSafelyNewYork811#p/u.
As our marketing agency has grown over the years, we’ve enjoyed the opportunity to work with a variety of damage prevention stakeholders throughout the country. The damage prevention message we’ve helped our clients deliver is consistent no matter where we deliver it: Know what’s below. Call 811 before you dig.

But there’s one other important similarity among damage prevention stakeholders – the need to reach a lot of people with a limited marketing budget. Our solution to this age-old problem may surprise you, and that solution is “sports sponsorships.”

For the most part, I’m not talking about major league sports, and it’s easy to understand why. With the number of millionaires in the National Football League, Major League Baseball, NASCAR, the NBA and even the NHL, major league sports sponsorships have become unaffordable for many damage prevention stakeholders.

Minor league baseball has, for the most part, remained unaffected by the explosion in sports salaries since its athletes are unproven and paid in the thousands of dollars, not millions. Also, these franchises are firmly entrenched in their cities and towns. They also do a great job of reaching the professional excavator and “do-it-yourselfer” demographics that are so critical to reach during peak digging season.

Most importantly, minor league baseball teams go above and beyond for every sponsorship dollar and are willing to try unconventional approaches that put their advertisers on a pedestal. Despite this fact, even minor league sponsorships need to be approached with caution.

Just because it costs less to promote 811 at a minor league venue doesn’t mean that any sponsorship will do. It’s important to make sure you’re spending your organization’s dollars wisely to reach your target audiences – professional or homeowner. To make sure you get the most of your minor league sports sponsorships, we’ve developed this quick list of questions to ask yourself before signing any contract.

**Does the sponsorship extend beyond the stadium or arena?**
Sports venues by their very nature are finite in their reach, since every stadium has a limited number of seats. That’s why we recommend sponsored promotions that require the team to push your brand in all of their communications channels – their website, paid advertising, social media, email marketing and in-stadium mentions on multiple nights, not just one. Sponsored promotions with these elements carry much stronger value than just a simple program ad or billboard due to the multiple touch points with the full fan base. The better the giveaway item or contest grand prize, the more incentive for the baseball team to promote it (and 811) to fill the seats that night.

**Does the sponsorship get multiple damage prevention stakeholders involved?**
Strength in numbers plays a major role here, since the effectiveness of a public awareness campaign increases when more partners are involved. A perfect example of this is the number of damage prevention stakeholders, often facility owners partnering with One Call centers, that worked with minor league baseball teams to offer $8.11 tickets on August 11 (8/11) this year. The result was several stakeholder coalitions all pushing the 811 message and helping the various baseball teams sell tickets, ideally without any (or at worst a reduced) sponsorship fee. This partnership approach is the perfect example of getting the most mileage out of your sports marketing dollar.

**Can the sponsorship earn news coverage for your organization and 811 on its own?**
Minor league baseball is known for being unconventional in the sponsorships it will sell, meaning sometimes they become newsworthy on their own. It isn’t always easy, but it is possible. Sometimes it just takes the right
ingredients coming together at the right time and being opportunistic.

For one of our clients, Miss Utility of Maryland/D.C., those ingredients were the top baseball prospects in a generation, Bryce Harper and Stephen Strasburg, both members of the Washington Nationals’ system.

When Harper was assigned to the Hagerstown Suns in March, our firm worked with the team on behalf of Miss Utility for a first-of-its-kind sponsorship we thought would get some buzz in D.C. and the sports business world. Miss Utility sponsored every one of the young star’s home at-bats with the following announcement, “Now batting Bryce Harper, brought to you by Miss Utility, reminding you to call 811 before you dig.”

The concept of sponsoring a single player’s at-bats was unprecedented and led to extensive media coverage in the Maryland/D.C. area, as well as on ESPN’s popular national “Around the Horn” show.

Strasburg, on the other hand, made it to the majors last year, only to injure his elbow late in the season. As he prepared for a minor league rehab start with the Potomac Nationals, we proposed Miss Utility be the sponsor of his post-game press conference, which meant the Miss Utility and 811 logos would be prominent in the stories produced by the swarm of credentialed media in attendance. 811 was blanketed across the mid-Atlantic, but once again the campaign was highlighted by exposure on ESPN, this time on “SportsCenter” and “Baseball Tonight.”

These two sponsorships, which cost a total of a few thousand dollars, resulted in media coverage valued at 30 times that amount, the perfect example of how newsworthy sports sponsorships can go a long way to promote damage prevention.

Does the deal seem like it’s heavy on perks and light on promotion?

This is a short point, but an important one to end on. Don’t agree to a deal because you get offered free seats, free food, memorabilia, etc. It’s one of the biggest traps in sports marketing – getting sucked into the excitement and forgetting that job number one is promoting your brand, in this case the 811 message. If a package appears to have plenty of hospitality but not much marketing potential, it’s probably best to renegotiate.

While minor league baseball has ended for the year, it’s never too early to start planning for how it fits in your 811 outreach mix for 2012. In fact it’s wise to start doing it now to make sure your sponsorship package can include mentions on the pocket schedule and other printed team marketing materials.

So, get your planning started and see what minor league baseball promotion can do for your organization and damage prevention. See you (and 811) at the ballpark in 2012!  

Chris McMurry is a vice president and director of the public relations practice at MGH, a full-service integrated marketing communications agency based in Baltimore, Md. MGH’s damage prevention experience includes Common Ground Alliance, Miss Utility of Maryland/D.C., Indiana 811 and Miss Utility of Delmarva. Chris can be reached at 410-902-5036 or cmcmurry@mgbus.com.
Marathon Pipe Line’s 811 Outreach

/ BY CRAIG POTTs AND SALLY ARNET

Safe Digging School Program
For the past two years, Marathon Pipe Line (MPL) has conducted a Safe Digging School Program to educate students about underground utilities and the importance of calling 811 before digging. Company employees visited local public schools in Findlay, Ohio, that were located near a MPL pipeline.

Classroom presentations for third grade students were conducted in March. Teachers and students were given 811 t-shirts, which they wore on the day of the presentation. The presentations included discussions about underground utilities, pipeline markers and 811. Students were also shown the CGA 811 Pirate video. In order to tie the program to National Safe Digging Month, MPL sponsored a poster contest. Based on what they had learned, students were encouraged to draw a picture that illustrated safe digging.

About a week later, over 90 posters were displayed at the Marathon Petroleum Corporation Office and the winning poster was determined through employee voting. After the winner was selected, all the posters were displayed for two weeks in April at the local public library.

In May, the posters were returned to the school and the contest winner received a Wal-Mart gift card and his classroom enjoyed a pizza party provided by MPL. The program’s effectiveness was measured by a brief student questionnaire and a teacher evaluation. It was clear from the responses that the students understood the importance of calling 811 before any digging project. The teacher reviews were positive with an interest shown in repeating the program in coming years.

MPL plans to begin rolling out the program to its 17 area offices in 2012.

811 Day Activities
On Monday, August 8, employees of Marathon Pipe Line’s Damage Prevention Department organized the planting of a new tree on Main Street in Findlay, Ohio. MPL partnered with the City of Findlay and several businesses to complete the project. Several days before the tree was scheduled to be planted, the tree service contractor called 811. This call began the process of having the underground utilities, such as electric, gas, and water lines located and marked. “We wanted to do something that raised the awareness of 811 and at the same time help beautify Findlay,” said Damage Prevention Supervisor Miriam Kuhn.

MPL ordered nearly 700 t-shirts with the 811 logo for their employees and partners. On August 11, employees in 15 different states wore their t-shirts to work. That morning, two members of the Damage Prevention Department participated in a live interview on a local radio station and they educated listeners about 811, who should call, the type of projects that require a call and the potential consequences of not calling. MPL also partnered with a local Marco’s Pizza restaurant to promote awareness of 811 by offering a large one-topping pizza for $8.11. The Damage Prevention Department provided Marco’s with 811 flyers and utility color code magnets to attach to their pizza boxes to help educate their customers.

Craig Potts is the Public Awareness Coordinator. He can be reached at 419-421-3260 or capotts@marathonpetroleum.com. Sally Arnet is a One Call Specialist. She can be reached at 419-429-5811 or STArnet@marathonpetroleum.com.
How to Use the CGA Communications Plan

In December 2010, Common Ground Alliance (CGA) introduced the very first CGA Communications Plan to the public. CGA designed this document as a reference tool for anyone who works in damage prevention education, not just CGA members. Now, more than midway through 2011, CGA has found this 85-page document is an extremely successful resource to all damage prevention professionals who want to spread the word about safe digging.

The entire plan can be found online at www.call811.com/campaign-materials. It contains a comprehensive 13-month calendar, general 811 talking points, fact sheets, and a graphic standards guide for using the 811 logo and tagline. The plan also features a variety of template communications materials including press releases, media advisories, public service announcements and contributed columns, all intended to be customized according to the user’s organization.

Many successful stakeholder campaigns are profiled in the plan with the goal of other stakeholders giving them a try. Each case study covered in the plan contains helpful information including how-to guides, timelines and press-ready material to help anyone successfully reproduce a campaign.

It is also extremely effective to reference the Communications Plan when an unfortunate incident occurs that could have been prevented by a call to 811. In these instances, the Communications Plan can help prepare a media statement that serves as an opportunity to remind the public about calling 811 when the safe digging message is most timely in the media.

Evidence of professionals using the Communications Plan can be found all over the country throughout the year. Most recently, on 8/11 Day (Aug. 11), the Communications Plan was used by organizations nationwide for earning media coverage, drafting and placing op-ed columns, creating website advertisements, ordering Call 811 T-shirts, and even creating special 8/11 Day cakes for local media outlets or employees.

In December, CGA will publish a revised Communications Plan for 2012 based on the feedback, success stories, and recommendations received throughout the year. If you have any recommendations or questions about the Communications Plan, please email the CGA staff at 811@commongroundalliance.com.

What’s Next for Public Safety in the Right-of-Way? continued from page 19

It is envisioned that a Damage Prevention Partnership would establish meetings for both workers and managers that have audience-specific topics to address the unique roles of each in damage prevention. Excavator Safety Awareness events around the country are well attended by representatives of One Call systems and utilities providing attendees the opportunity to create personal relationships that benefit damage prevention. Damage Prevention Partnerships would also include specific locators assigned to the project, to provide the opportunity for relationships to be made that will have a very positive impact a specific project. I believe that this would provide a mechanism for all stakeholders to “act their way into a new way of thinking” with new and better approaches to damage prevention on a project-by-project basis.

One of the flaws of providing education to people you are likely never to see again at awareness events can be overcome when they are associated with a specific project. Industrial trainers all know that in order to determine if any element of training was successful in delivery they must confirm “behavior change” in the field. On a project-by-project basis, all the stakeholders will have the opportunity to confirm behavior change as a result of training and each stakeholder would be provided guidelines for such documentation. I believe the recovery of project data, including behavior change, will allow us to predict damage based on observed behaviors in time to prevent damage.

The APWA could be the logical forum for exploring this concept of public/private “Damage Prevention Partnerships” initiated on a basis of Public Safety. It is a concept worth exploring because it does not require legislative action, and in the scheme of things the cost to any one party will be minimal and the ROI should be astronomical, especially if we can also protect the lives of the public in our rights-of-way.

Wayne Jensen is the Director of Safety for Stahl & Associates Insurance and the Chairman of the Tampa Bay Excavation Task Force, which he founded in 2008. Wayne has served on the Board of NUCA and currently serves on the Board of the Suncoast Utility Contractors Association. He can be reached at wayne.jensen@stahlinurance.com.
Whether your company is dealing with a damage claim or facing an investigation by a regulatory agency, one of the issues that must top your checklist to ensure a response that best protects your company is the preservation of electronic evidence. If electronic evidence is lost, mishandled, or even overlooked through the most honest of mistakes, your company could be exposed to serious liability where none might otherwise exist. Here are just a few simple DO’s and DON’Ts to keep in mind each time you need to deal with electronic evidence preservation.

**DO put a hold on electronic evidence in all forms.** Each and every part of anything electronic that helps operate your business must be maintained and preserved until the claim or investigation you’re facing is resolved. Your company’s first move each time should be to stop all automatic deletes that your computer system usually performs. Stop all routine document destruction, and certainly stop all employees from any removal of equipment, zip drives, programs, documents, etc. If any of your data storage is done through an off-site facility, that off-site facility must also be contacted and required to preserve all data until further notice.

**DON’T delay in calling for professional help.** Just like you would expect to be called to handle situations requiring your professional expertise, you should use that same logic and place two calls immediately after your company recognizes that a claim or inquiry requires preservation of electronic evidence. The first call should be to your (experienced) attorney. We can help guide you through the steps necessary to locate all sources of potential evidence, preserve that evidence, and then craft the appropriate response to the claim or regulator. Once that is done, your next call should be to a qualified information technology (IT) data preservation specialist. Every good attorney has an IT preservation specialist programmed into speed dial, so even if your attorney does not make this call for you, you can get the information to contact the right IT personnel moments after calling your attorney. Getting qualified IT data professionals on-site as soon as you realize that electronic evidence preservation is necessary will not only ease your mind but will demonstrate your company’s commitment to a thorough and complete response.

**DON’T let untrained personnel “help” with preservation.** Even if they have the best intentions, allowing untrained employees or managers to coordinate electronic evidence preservation will inevitably result in trouble. A key evidence location will be overlooked, a wrong key pressed, improper formatting used, or one of a thousand other things that could go wrong will. Leave the mechanics and requirements of evidence preservation, the collection efforts, and the identification of responsive evidence to the professionals you have hired to deal with this situation for you.

**DO send specific, written preservation instructions.** With the help of your attorney and data preservation specialists, it is absolutely necessary that you send a written letter or memo to all your employees, managers, internal IT personnel, and even your directors regarding the steps they need to take to preserve electronic evidence for collection. Again, an experienced attorney will have a well-developed checklist and clear directions that you can tailor to meet your specific needs. Being able to prove to opposing counsel or your regulator that you issued clear and specific written directions requiring evidence preservation will not only comply with preservation requirements but will also enhance your company’s credibility and get you through the situation and back to business as soon as possible.

Heather Marx is a Partner with the national law firm of Hinshaw & Culbertson, LLP. She can be reached by phone at 612.333.3434 or by email at hmarx@hinshawlaw.com.
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Mike Sullivan

Some of our readers may know Mike Sullivan as the new President of Alberta One Call. Others may know of Mike through his position as Chair of the Canadian Common Ground Alliance (CCGA). Many others may have known Mike through his pipeline days with HMA Land Services and Alliance Pipeline. Most Pipeline professionals will recall having met Mike during his ten years as an Inspection and Safety Officer with Canada’s National Energy Board (NEB).

I first met Mike while he was with the NEB and have followed with interest his commitment to safety and damage prevention when working in the vicinity of buried infrastructure. Mike had always exuded a passion for pipeline safety, and particularly when excavation activity was going on in the vicinity of subsurface facilities. As a result, he was keenly interested in the One Call System.

This passion led Mike, in 1997, to drive the implementation of the NEB’s “Awareness” workshops, which were held in Calgary, Vancouver, Niagara Falls, Halifax and Montreal. These workshops were highly successful and were instrumental in spreading the word on the effectiveness of the One Call System. The fledgling Alliance Pipeline observed Mike’s capabilities and soon had him on board as their Public Affairs and Policy Compliance Coordinator. Soon, Mike became Team Leader for their Pipeline Corridor Management in Canada. In both functions within Alliance, Mike was deeply involved in Damage Prevention and Emergency Management. During this time, he chaired the Canadian Energy Pipeline Association’s “Emergency Management Committee” from 2005 to 2007. While with Alliance, Mike became an active member in several of the Provincial Common Ground Alliances (CGAs), which were beginning to evolve across Canada.

It didn’t take long for others outside of Alliance to see the passion and positive impact Mike was having in the world of damage prevention. Paul Anderson, President of HMA Land Services, worked with Mike in the past and approached him to move on to HMA as their Vice President of Operational Services. Paul says, “Many clients within the pipeline industry (especially Group 2 companies) struggle with compliance; although they want to do the right thing they just don’t have the best systems in place for damage prevention and public awareness. Mike was able to influence a number of companies and the industry as a whole and improve safety overall.”

It was during his time with HMA that Mike became more involved in the Canadian CGA. Before long, he was elected and remains Chair of the organization, and continues to be a driving force in pursuing 811 as a viable option in Canada. CCGA’s challenge is that 811 has been reserved by the federal powers to be, for non-emergency health services across Canada. Knowing Mike, this situation will be resolved to the benefit of all concerned!

Unfortunately for HMA, but extremely timely and fortunate for Alberta and Canada, another opportunity would arise for Mike. The then-President of Alberta One Call (Canada’s first and very successful One Call System) had announced his decision to retire. The Board began a search for a new President and it didn’t take long to realize the most experienced and very obvious candidate was residing right in Calgary, the home town of Alberta One Call! Says Paul: “Mike lives and breathes damage prevention and we knew he couldn’t pass up this opportunity. There is no one better suited to the role than Mike Sullivan.”

In May of 2011, Mike was announced as the new President of Alberta One Call. Canada and North America’s owners and operators of buried facilities and those who dig around them have benefited immensely from Mike’s involvement to date — North America’s CGAs and One Call Systems look forward to Mike’s active involvement as we proactively implement our common damage prevention goals.

This article was contributed by Scott Henley, president of Henley Consulting, Inc., Canada’s pioneer operator of One Call systems. He can be reached at Henley@islandnet.com
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Sometimes when you give, you receive in areas you would never expect.

Susan M. Bender is the President and CEO of Linc Energy Systems, a manufacturers’ agent, distributor and contractor for the energy industry. She started her business in 1990, when she relocated to Colorado. Not wanting to name the business after herself, she chose Linc, after her dog “Abraham Lincoln.” Abraham was Susan’s trusted travel companion and that first year they clocked nearly 100,000 miles on her SUV while visiting customers. She didn’t have a choice as she was the only salesperson in her business and knew what she needed to do to cover the Rocky Mountain states and be successful.

Fast-forward 21 years and you’ll still find Susan selling in the industry, but without her trusted canine. While the dynamics of her business have changed as it’s grown over the years, one thing has remained constant, her attitude toward giving back.

Over the years, Susan has actively supported numerous organizations by giving her time, talents and money. She’s held board and officer positions in homeowners associations, a business condo complex and church groups. She regularly donates to her church, Planned Parenthood and ILIFF School of Theology to name a few.

As an avid bicyclist, Susan has participated in organized events like Ride the Rockies, the Elephant Rock, RAGBRAI and Tour of Colorado. Combined with her desire to give back, it shouldn’t be a surprise that she’s also ridden in the Courage Classic to raise funds for Children’s Hospital. Many organizations she’s supported over the years relate to cancer research and treatment. While this may have been initially inspired when she lost her mother to cancer, Susan herself has had a brush with Hodgkin’s lymphoma. As a cancer survivor, Susan has a unique perspective for life and the gift of time. “This is why she volunteers as a “first responder” for Hodgkin’s disease and the Sonaviv Alternative Healing Center. Those recently diagnosed with lymphoma are given names of survivors, including Susan’s, to call and speak with about the challenges they’re facing.

When I asked Susan why she is so generous, her response was simple: “It makes me feel good! Whenever you have a glimpse of your mortality and are given a second chance, how can you not give back?” Susan feels if she can demonstrate to just one individual that there’s hope, and they don’t give up, she’ll make a difference.

“Isn’t that what we all want, to make a difference in this world? How fortunate I am to have a fresh start.” Susan believes that the more she gives unconditionally, she receives back by knowing she’s helped others. “I remember how grateful I was to have someone to talk to when I was sick.”

Perhaps Susan’s experience demonstrates that the more you give the more you get back, not necessarily in the same way though. While Susan may feel “good” about what she’s doing, it is fascinating that in these interesting economic times, her company is expanding and she’s venturing into new markets. The one-person and dog team is now recognized as a leading supplier and utility contractor in the Rocky Mountain States and is venturing outward.

“You don’t have to be a survivor to give back,” Susan Bender says. “It feels good knowing I’ve helped those in need and trust it’ll come back to me one way or another. It always has.” Those interested in connecting with Susan can find her on www.lincenergysystems.com.

Alex Marcoux is a former employee of Linc Energy Systems and Vice President of M Squared Public Relations and Marketing.
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