

fis COMMUNICATOR

The Best is Yet to Come...

By Frank Giotto
FIS President and CEO

I find it hard to believe that FIS is celebrating its 30th Anniversary! As I look back, I wonder how we achieved the great success that we did. Were we really that smart?

Then it hit me. Our success is really due to "passion."

Since the founding of our company in 1985, everyone at FIS has been passionate about the unlimited potential of fiber optics. We learned about it in the classroom, we heard it from our customers, and we saw it in the news. Fiber optic technology was destined for great things.

Within a few years of our founding, the technology began to live up to expectations. In 1988 the first fiber optic cables were laid across thousands of miles of ocean floor. A phone call to someone in Europe became as clear as calling your neighbor next door; 40,000 conversations could be transmitted simultaneously over a single fiber optic cable.

Next, fiber optic cables were installed to interconnect major cities in the U.S. and much of that cable was provided by FIS. Homes, schools and businesses now enjoy a myriad of high bandwidth services, all thanks to fiber optics. Like a silvery thread, optical fiber has woven itself into the fabric of our lives.

Today, fiber optics is indispensable for scientific research. Fiber optics was a key technology in the quest to find Higgs Boson, the so-called God particle. Many such breakthroughs are covered in *WaveLengths Magazine*, a leading industry publication produced by FIS.

I can't wait to see what the next 30 years will bring. Our passion for fiber optics continues to motivate FIS to do great things, both for our customers and the fiber optics industry at large.

The best is yet to come.



Inside This Edition

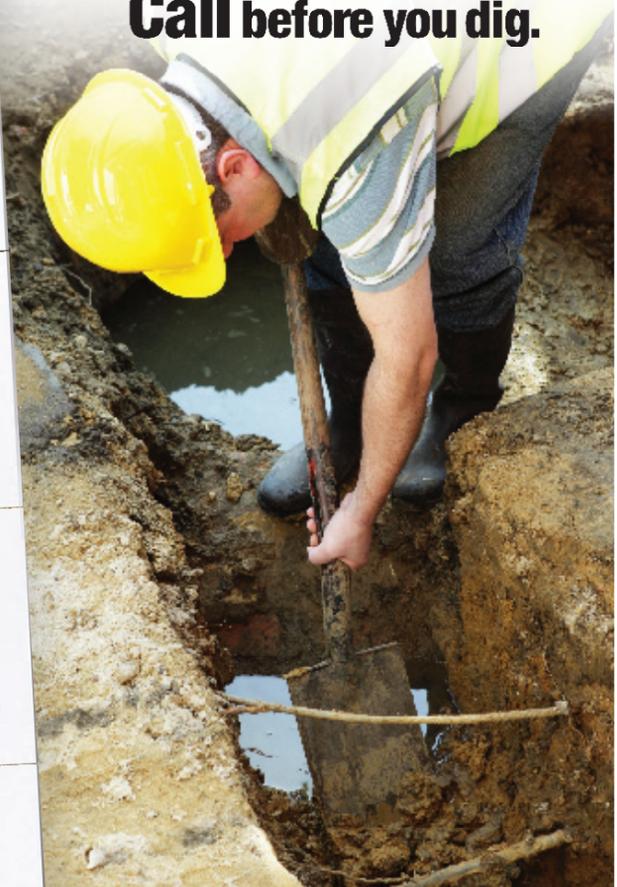
Can You Dig It?

Before plunging that blade into the soil, do you know whether there are underground utilities present?

In this issue, James Flint of Dig Safely New York provides helpful advice to keep you safe.



**Know what's below.
Call before you dig.**



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Can You Dig It?

Spring is upon us! For those of us in the northeast United States especially, we've been waiting for that first 40 degree plus day to get out and begin the projects for the year. Because we may have been so dormant for the past few months it is easy to forget the basic safety practices of previous years. This is especially true when we consider our work with underground utilities. Therefore, there is no more perfect time to reassess the basics of underground utility protection and how we can keep ourselves, coworkers, and employees from costly repairs and serious injury.

There are three root causes of damage as identified by the Common Ground Alliance (CGA) in their annual DIRT report (www.cga-dirt.com). These causes accounted for 92 percent of the recorded damages in the United States in 2013. When we look at these causes, the result of location practice not being sufficient is the smallest of the three at 16 percent. Mismarks are an unfortunate side of our business and one that most utility operators strive to mitigate. If you ask any experienced line locator, the practice of identifying underground lines can be just as much of an art as it is a science.

Over the years we watch as damages from failure to notify the one-call system steadily decrease. In 2013, 26 percent of the damages were a result of the excavator simply not making the call or utilizing online ticket entry before they dig. From a safety professional's point-of-view, this is one of the more frustrating points, as in most states it is a free service. Additionally, the one-call centers around the country have continually made strides to make the placing of a location request a very efficient and streamlined process.

This leads to the number one overall reason for damages to underground utilities; unsafe digging practices when working around the marked lines. Fifty percent of utility line damages occur because an excavator takes the risk. In my capacity as an educator for underground utility protection I have heard many excuses such as, "I'm only going down a couple inches," or, "I'm going easy with the backhoe." All of these are famous last words.

In New York we have an area known as the Tolerance Zone. The Tolerance Zone is the area, two feet of each side of the markings, in which you want to verify the location, depth, and direction of run of any utility you will come across.



ABOUT THE AUTHOR

James C. Flint is with Dig Safely New York, where he is Field Supervisor (Central New York area) and Field Rep for the Mohawk Valley region of the state.

Jim facilitates excavator training and community awareness regarding damage prevention of underground utilities throughout 11 counties. He is also President, American Society of Safety Engineers, CNY Chapter, and Centerstate CEO for 40 Below Civil Engagement Task Force.

Jim was a presenter at last year's Northeast Fiber Optic Conference (NFOC), which is an annual event hosted by FIS.

811 - One Call Does It All

Dig Safety New York is among the many one-call centers throughout the U.S. that use the 811 number. These centers promote an easier, safer digging environment by serving as a link between excavators and underground utility operators.

Regardless of where you live or work in the U.S., just call 811 if you are planning an excavation of any kind. The call center will contact the necessary utility companies, which will mark the underground utilities in and around your work area.

Having to pay for repairs to an underground utility that you damage can be very costly to you. It can even be fatal if you strike an electrical line. Play it safe - call 811 before you dig.

These utility marking services are free in most states and available to businesses and homeowners alike.



**Know what's below.
Call before you dig.**



Be smart and return home safely.

Other states have different standards on the size of this area. It is important to familiarize yourself with these standards to avoid any potential violations of your state's law.

The Common Ground Alliance is a great resource for you to find more information on your state's one-call standards and overall best practices, www.commongroundalliance.com. In New York State, a valuable resource is Dig Safely New York's website, www.DigSafelyNewYork.com. As we move into the excavation season, please take the time to remove yourself from the 92 percent of damages. Make sure you always call before you dig and adhere to safe digging practices within the Tolerance Zone. Let's be smart and safe out there to make sure we avoid those costly repairs and more importantly, go home to our families.



From our upcoming 2015/16 FIS Product Catalog...

NEW

FIS Customized High Visibility Safety Apparel

FIS now offers an excellent selection of High Visibility Workwear that can be personalized with your company name and/or logo. Get the most out of your safety apparel – easily identify your gear and spread your company name to potential customers! All pricing includes a one color imprint with no set up fees.

CALL 1-800-5000-FIS (347) FOR MORE INFORMATION



SS-1001



SS-1004



SS-1006



SS-1007



SS-1008



SS-1009

FIS HIGH VISIBILITY SAFETY T-SHIRTS

Perfect for a wide range of work environments. Made from 100% preshrunk cotton. Available in short sleeve, short sleeve with pocket and long sleeve. Sizes small to 5XL. Available in safety green and safety orange. Add \$2.00 per short sleeve t-shirt and \$3.00 per long sleeve t-shirt for sizes 2xl -5xl. Price includes 1 color, 1 location imprint and FREE SETUP ON ALL ORDERS.

PART #	DESCRIPTION	12-24	25-49	50-100	100+
SS-1001	Short Sleeve T-shirt	\$8.25	\$7.25	\$6.25	\$5.75
SS-1002	Long Sleeve T-shirt	\$9.50	\$8.50	\$7.50	\$7.00
SS-1003	Pocket T-shirt	\$11.25	\$10.75	\$9.75	\$9.25

FIS HIGH VISIBILITY SAFETY VESTS

FIS Class 2 Vest (SS-1006) features 2 pockets, a zipper front and 2" reflective stripe. FIS Class 3 Safety Vest (SS-1007) is loaded with features including a tearaway zipper closure, 2" reflective stripe, mic tabs on shoulders and 7 tool pockets. Both are made from comfortable polyester. Sizes medium to 5X. Available in lime yellow and orange. Price includes 1 color, 1 location imprint and FREE SETUP ON ALL ORDERS.

PART #	DESCRIPTION	6	24	36	72+
SS-1006	Class 2 Vest	\$9.75	\$9.50	\$9.25	\$8.75
SS-1007	Class 3 Vest	\$29.95	\$27.95	\$25.95	\$23.95

FIS HIGH VISIBILITY SAFETY SWEATSHIRTS

Bright fluorescent colors make you stand out on high-hazard job sites. Made from 50% cotton, 50% polyester. Available Hooded or Crewneck. Sizes small to 5XL. Available in safety green and safety orange. Add \$2.00 per shirt for sizes 2xl -5xl. Price includes 1 color, 1 location imprint and FREE SETUP ON ALL ORDERS.

PART #	DESCRIPTION	12-24	25-49	50-100	100+
SS-1004	Hooded Sweatshirt	\$20.75	\$19.75	\$18.75	\$17.25
SS-1005	Crew Neck Sweatshirt	\$15.50	\$14.50	\$13.50	\$13.00

FIS HIGH VISIBILITY SAFETY CAPS AND HARD HATS

FIS Safety Caps are one size fits all with a Velcro® closure. Available in yellow and orange. FIS Hard Hats are versatile and dependable with a four point plastic pinlock headband that is sturdy and easy to use. Available in yellow and white. Available in lime yellow and orange. Price includes 1 color, 1 location imprint and FREE SETUP ON ALL ORDERS.

PART #	DESCRIPTION	6	24	36	72+
SS-1008	Reflective Safety Cap	\$9.95	\$8.95	\$7.95	\$7.25
SS-1009	Hard Hat	\$13.95	\$12.95	\$11.95	\$10.50

FIS Safety Signs

Safety Signs are made of .026 gauge aluminum and will never rust. High-gloss UV-PRO coating is fade resistant. Signs are available in 4 different sizes and feature rounded corners and drilled mounting holes. (Commercial grade, non-agency approved.)

PART #	DESCRIPTION	PRICE
SS-1010B	1-1/2" x 3" (Warning: Fiber Optic Cable Call Before You Dig Sign)	\$1.95
SS-1010A	3" x 6" (Warning: Fiber Optic Cable Call Before You Dig Sign)	\$2.75
SS-1010C	4" x 4" (Warning: Fiber Optic Cable Call Before You Dig Sign)	\$3.29
SS-1010D	8" x 12" (Warning: Fiber Optic Cable Call Before You Dig Sign)	\$6.25
SS-1010B	1-1/2" x 3" (Warning: Fiber Optic Cable Sign)	\$1.95
SS-1010A	3" x 6" (Warning: Fiber Optic Cable Sign)	\$2.75
SS-1010C	4" x 4" (Warning: Fiber Optic Cable Sign)	\$3.29
SS-1010D	8" x 12" (Warning: Fiber Optic Cable Sign)	\$6.25
SS-1010B	1-1/2" x 3" (Warning: Buried Fiber Optic Cable Sign)	\$1.95
SS-1010A	3" x 6" (Warning: Buried Fiber Optic Cable Sign)	\$2.75
SS-1010C	4" x 4" (Warning: Buried Fiber Optic Cable Sign)	\$3.29
SS-1010D	8" x 12" (Warning: Buried Fiber Optic Cable Sign)	\$6.25



SS-1010D



SS-1010A



SS-1010C



SS-1010B

FIS Custom Safety Signs

Custom Safety Signs are made of .026 gauge aluminum and will never rust. High-gloss UV-PRO coating is fade resistant. Signs are available in 4 different sizes and feature rounded corners and drilled mounting holes. Customize your message with your company name or logo, or choose from our standard signs. Signs are 100% made/printed in the U.S.A.

CALL 1-800-5000-FIS (347) FOR MORE INFORMATION



PRODUCT of the MONTH

AFFILIATE SPOTLIGHT

Energy Efficient Products (EEP) provides LED lighting for data centers and other commercial applications. EEP is an affiliate company of Giotto Enterprises, which includes FIS.



LED Safety Flare Kit

These super bright LED lights replace hazardous incendiary road flares. Because these flares are "electronic" they are also safe for use as hand-held signaling devices.

The flares are ideal for road crews that perform emergency restoration work, as well as for personal vehicle safety (includes seatbelt cutter and glass-break safety hammer).

- Kit includes 3 shock resistant LED flares and rugged carry case
- Five flashing modes/light patterns
- Large flares are nearly one foot long (290 mm)
- Magnetic and tripod mounts included



Only \$109.00

To order the LED Safety Flare Kit call EEP at 1-877-788-4337. Or email info@eepsales.com. For information about other EEP products go to www.eepsales.com.

Eye on the Industry

Here is our monthly report tracking the stock prices of some of the key names in our industry. Prices are as of the end of the fourth quarters of 2013 and 2014, and as of the close of business on March 23, 2015.

Company	End 4th QTR 2013	End 4th QTR 2014	March 23, 2015
3M	140.25	164.32	166.13
Belden Inc.	70.45	78.81	91.86
Cisco	22.43	27.81	28.40
Corning	17.82	22.93	23.47
EXFO	4.76	3.45	3.67
JDS Uniphase	12.98	13.72	13.72
Optical Cable Corp.	3.67	4.53	4.06
Preformed Line Products Co.	73.16	54.63	46.40

ASK BRUNO

John Bruno, V.P. of Technical Services

TRAINING

"Should I bond and ground an armored fiber cable? I never get the same answer when asking this question, some say yes and some say no."

There are two type of cable armor, the original type is known as corrugated steel and the second is aluminum interlocking.

Corrugated steel armoring is rodent proof and gives the cable better crush resistance. This cable is designed for outdoor applications and is nearly impossible to bend tightly.

Aluminum interlocking armor (AIA) is a banded tape that makes the cable much easier to bend; it is used with a fiber cable to eliminate the need for installing a conduit to house the fiber and reduces expense and labor.

The National Electric Code states that every corrugated steel and aluminum interlocking armor cable is required to be bonded and grounded. Bonding the armor will ensure the dissipation of unwanted electrical current.

This unwanted electrical current can result in injury, fire, equipment damage and system down time. Too often during the installation process armored fiber cables are not properly bonded and grounded.



Upcoming Training Dates

Fiber Optics I and II – Two Days

- April 22–23, Pittsburgh, PA
- May 4–5, Jackson, MS
- May 6–7, New Orleans, LA
- May 20–21, Atlantic City, NJ
- June 9–10, Detroit, MI

Fiber To The x – One Day

- April 30, Ottawa, ON
- May 13, Atlanta, GA
- May 27, Charlotte, NC

To register or for more information, contact Grace Edel at 1-800-5000-FIS (347), ext. 2169 or gedel@fiberinstrumentsales.com.

FIS Bulletin Board

Look for FIS at these Upcoming Industry Events

- SCTE – April 9, Oak Brook, IL
- BICSI Ottawa – April 26–29
- Wireless Infrastructure Show April 27–30, Hollywood, FL
- SCTE – April 30, Dodge City, KS
- SCTE – May 13, Queenstown, MD
- SCTE – May 14, Indianapolis, IN

Check out our NEW WaveLengths Magazine website

www.wavelengthsmagazine.com

The new website features an interactive "Ezine" version of our magazine, an article resource library, discussion blog and more!

Published by FIS, WaveLengths Magazine is available FREE to FIS customers in both print and online editions.

More Great Products

Be on the lookout for the new 2015/16 FIS Product Catalog, coming soon in both print and online editions.

The catalog features many new products, including a new FIS FIRECAT 2 series OTDR, our new bend insensitive Platinum Patch Chords, FIS High Visibility Safety Attire and more.

Your business may qualify for a free company listing!



MAGAZINE

Submit your name and company information to advertising@wavelengthsmagazine.com or visit www.wavelengthsmagazine.com and click "connections".