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# HOOSIER SURVEYOR

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## ISPLS 58th Annual Convention

January 13-15, 2010  
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(see pages 13-16 for program)

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# HOOSIER SURVEYOR

VOLUME 36 NUMBER 2 FALL 2009

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## EDITORS NOTE

Deadlines for copy for various planned issues of the Hoosier Surveyor are as follows: Winter - December 31; Spring - March 31; Summer - June 30; Fall - September 30.

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Articles and columns appearing in this publication do not necessarily reflect the viewpoints of ISPLS or the Hoosier Surveyor staff, but are published as a service to its members, the general public and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes or deletions as to its contents.

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# PRESIDENT'S THOUGHTS

by Dan Kovert, Fishers, Indiana



Wow – it’s hard for me to believe that this is my last message and that my term as president of ISPLS is coming to an end. I must be getting older as the years continue to go by faster and faster just like my parents had told me they would.

With the charges given to our committees, there were a couple of areas that we wanted to emphasize this year. While some of these charges could not be met due to the downturn in the economy, and in turn, a reduction to

our 2009-2010 budget, I am very proud of the successes we’ve had this year.

A major goal for the past several years has been to develop a schedule and program for the LS and SIT review courses. An ad-hoc committee, led by Tony Gregory with lots of help from Bill Clark, Carol Morman and Bruce Franke, quickly developed the review course schedule and program for not only this year but the next three years as well. I sincerely hope that some of you were able to take advantage of this program or will be able to do so in the future. Because of the success of this committee, they have been charged with developing a schedule for the CST exam for technicians. I have no doubt that they will turn this into a success as well.

Another mission that had been on the wish list for the Board of Directors has been a better line of communication between the Board and the members of the society. A few days after the convention this past January I asked one of our new board members, Ryan Swingley, if he knew anything about creating a listserv. Without giving him any instruction, the ISPLS listserv was set up and ready to go by noon the following day. I hope that I have done it justice by providing information that is useful to all of our members. Currently, we have nearly 400 members enlisted in the listserv. If you are not, please visit the website at [www.ispls.org](http://www.ispls.org) to sign up.

Developing relationships with other similar organizations has been a priority for a number of years. This year, we were able to co-sponsor a day at the Indianapolis Motor Speedway with the American Society of Civil Engineers. In addition, we held a meeting with the president of the Indiana Association of County Surveyors to determine common legislative goals, investigated joining forces with the Indiana Land Title Association on updating the Law Manual and met with ACEC to discuss issues relating to the Indiana Professional Licensing Agency. I hope that these are just “building blocks” to stronger relationships with these organizations in the future.

Education of school-aged children to the profession of land surveying has long been a goal of ISPLS. To that end, with the help of many we have been able to develop a surveying merit badge program with the Boy Scouts of America. If anyone would like to have information on this program, please feel free to contact Ryan Swingley, Jason Coyle or Mark Schepers regarding this matter. In addition to the Boy Scouts, we have also targeted youth at reenactments across the state. Orwic Johnson has kindly volunteered many hours to attend these events and help educate young people about the importance of surveyors in history.

On the legislative side, we were not able to get right of entry for surveyors passed this past session. However, we will try again for this coming session and have developed a legislative priority list for future sessions. We were successful in getting the Indiana/Michigan State Line Commission established through the legislature and have made recommendations to the governor for the members of this commission from the border counties in Indiana. Much of this work could not have been accomplished without the help of our lobbyist, Mike O’Brien and his hard work is very much appreciated.

One of the largest committee undertakings of this past year was to submit the Indiana Height Modernization plan to NGS for funding. While it has not been submitted as of the date that I’m writing this, I’m very proud of the work that committee chair, Tom Mahon, and his group have done to prepare a well written professional report. I’d expect that this report will be submitted prior to the end of the year. Once the grant is received, we can begin work to develop a spatial geodetic reference framework with more precise elevations.

To better control the finances we receive for scholarships, we were able to set up the ISPLS Foundation this past year. It is our hope that this foundation will be the basis for educational scholarships to help those pursuing a career in the surveying profession. The establishment of this foundation could not have taken place without the leadership of Mark Isaacs and the Past-Presidents Council.

If you haven’t already, you will soon be receiving the mailing for the 2010 convention, hosted this year by the Northwest Chapter. I think you’ll find that Doug Herendeen and the convention committee have done an outstanding job in taking the feedback received from our membership and developing a group of sessions with dynamic speakers covering a wide variety of topics. As you know, registration to many of the popular sessions fills very quickly, so please return your registration form as early as possible so we can determine the space required for each session and make sure we can accommodate as many as possible.

In closing out my last message as president, I want to thank the many, many people who made this a successful year. At the top of the list is Dianne Bennett who always kept me aware of everything going on within the ISPLS office and who, on more than one occasion, reminded me of what I was supposed to be doing. I’d also like to thank the entire Board of Directors for the countless hours they gave in making the society the best that it can be. I’d certainly be remiss if I didn’t thank my wife and family for supporting me this past year and rearranging their schedules when I was taking care of ISPLS issues. And most of all, I’d like to thank the entire membership for their ideas and comments throughout the entire year. It’s really great to see so many involved in the society who are really wanting to advance our profession to another level.

Finally, I hope for the best to our incoming president, Jim Tibbett. Having come on the board at the same time as Jim, I’ve come to appreciate his drive to strive to do the best for all of our members and his “outside the box” thinking. I hope that you are as accepting and supportive of him as you have been to me.

I very much appreciate the opportunity you have given me this past year to lead this great society.

Professionally yours,  
Dan Kovert



# ISPLS BOARD OF DIRECTORS MEETING HIGHLIGHTS

by Dianne Bennett, Executive Director

## June 13, 2009

The ISPLS Board of Directors met on Saturday, June 13, 2009 at ISPLS headquarters. President Dan Kovert called the meeting to order at 9:01 a.m. The minutes and treasurer's report were reviewed and approved.

Adjustment to Agenda: Vincennes University Technology Advisory Council Meeting - Bill Clark gave a review of the V.U. Surveying program comparing 2008/2009 to 2007/2008 including CST Exam results, special projects, incoming Fall 2009, curriculum changes 2008/2009, curriculum proposals, new course descriptions and horizon projects.

Staff Activity Report - A written report was submitted for review.

Communication - Publications - The Spring issue is on line. Articles for Summer issue need to be submitted by July 15th.

Membership - The membership renewals were mailed out June 3rd and 4th. Also, businesscard solicitations went out.

The following membership application was reviewed and approved: Joseph Rose - Associate member.

Public Information and Marketing - The committee will meet on July 10th. The committee will continue working with the Boy Scout Surveying Merit Badge program.

There was a recommendation to cancel the ISPLS Golf Outing June 26th in Peru, Indiana at the Rock Hollow due to lack of attendees. The decision was made to hold the outing and make the decision whether to continue the outing at the deadline date.

Professional Development - Education - The ISPLS seminar by Gary Kent "Title Issues in Indiana Law, Legal Surveys, Rights-of-Way and ALTA/ACSM Land Title Surveys" held May 15th made a profit of \$2,772.00.

Scholarship - The 2009/2010 recipient for the Purdue scholarship is Brittany Scherer.

Government Affairs - The next Registration Board meeting will be July 10th.

GPS/GIS Monumentation - The committee is working on a grant (IGIC) for the Height Modernization project. Also noted was that all of the "INDOT CORS" are up and running.

Internal Affairs - Finance & Planning - A motion was made and passed to stay with the "current" credit card company and not change as was motioned in the April BOD meeting.

Old Business - A report was reviewed regarding the Indiana/Michigan Stateline Commission.

New Business - ISPLS Goal setting will be in November. The letter from Bob Church, IPLSA Executive Director, regarding ISPLS purchasing the book "Abraham Lincoln: The Boy, The Man".

Next BOD meeting is August 15, 2009.

## August 15, 2009

The ISPLS Board of Directors met on Saturday, August 15, 2009 at ISPLS headquarters. President Dan Kovert called the meeting to order at 9:20 a.m. The minutes and treasurer's reports were reviewed and approved.

Staff Activity Report - A written report was submitted for review.

Communication - Hoosier Surveyor - The Spring issue is at the printer and will be on-line shortly.

Membership - The final membership renewals were mailed out first part of August.

The following membership application were reviewed and approved: Affiliate- Carolyn Davis, Debra Jenkins, Kim Swan, Robert Colvin, Adam Long, Michael Shackelford; Associate - James DeArmond, Jon Pankey, Raiford Putnam, Charles Thompson, Nathan Meyer, Seth White; Professional - Maxcell George; Sustaining: Turning Point Systems Group; Life - Roger Woodfill.

Past President's Council - The committee will meet August 18th.

Public Information & Marketing - The committee met August 7th. A report was given on the PLSS Scanning project.

There will be a Boy Scout Surveying Merit Badge program. Also there will be a Webelos Engineering Activity Badge program this fall.

Professional Development - Education - The Education Committee recommended the "Basic Railroading" seminar on Nov. 13th at AZTAR in Evansville for an 8 hour CEH Elective topic. The Southwest chapter is co-hosting with a Kentucky chapter.

Scholarship - A written report was submitted on the Purdue University scholarship.

Government Affairs - Board of Registration - A letter was sent to Governor Daniels recommending the re-appointments for the BOR.

NSPS Governor/Great Lakes Council - The fall meeting will begin September 23rd in Gaithersburg, Maryland.

GPS/GIS Monumentation - A motion was made and passed to appoint Ryan Swingley as the ISPLS representative to the IGIC board.

Legislation - The future legislation priority list was discussed.

Internal Affairs - Midwest Computer Proposal was presented regarding the back-up service. A motion was made and passed to accept "Option 1".

Jill Patrick is the new ISPLS office assistant.

The ISPLS "Goal Setting" is scheduled for November at the Jonathan Byrd's Cafeteria in Greenwood, Indiana.

The 2008/2009 fiscal year end report was reviewed.

Wallington Asset Management quarterly report was also reviewed.

Old Business - Topics discussed were ISPLS Chapter officers being members of ISPLS; Indiana/Michigan Stateline Commission membership.

New Business - Discussion on the upcoming goal setting session.

Next BOD meeting will be Saturday, September 19, 2009 at headquarters.



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# Managing Your Stress in Tough Economic Times

As talk of the banking crisis, falling housing prices, rising consumer debt and declining retail sales bring up worries about the nation's economic health, more Americans feel additional stress and anxiety about their financial future.

Money is often on the minds of most Americans. In fact, money and the state of the economy are two of the top sources of stress for 80 percent of Americans, according to the American Psychological Association's 2008 Stress in America survey. Add to the mix headlines about closing businesses and job losses, and many begin to fear how they can handle any further financial crunch.

But, like most of our everyday stress, this extra tension can be managed. Psychologists first recommend taking pause and not panicking. While there are some unknown effects in every economic downturn, our nation has experienced recessions before. There are also healthy strategies available for managing stress during tough economic times.

The American Psychological Association offers these tips to help deal with your stress about money and the economy:

**Pause but don't panic.** There are many negative stories in newspapers and on television about the state of the economy. Pay attention to what's happening around you, but refrain from getting caught up in doom-and-gloom hype, which can lead to high levels of anxiety and bad decision making. Avoid the tendency to overreact or to become passive. Remain calm and stay focused.

**Identify your financial stressors and make a plan.** Take stock of your particular financial situation and what causes you stress. Write down specific ways you and your family can reduce expenses or manage your finances more efficiently. Then commit to a specific plan and review it regularly. Although this can be anxiety-provoking in the short term, putting things down on paper and committing to a plan can reduce stress. If you are having trouble paying bills or staying on top of debt, reach out for help by calling your bank, utilities or credit card company.

**Recognize how you deal with stress related to money.** In tough economic times some people are more likely to relieve stress by turning to unhealthy activities like smoking, drinking, gambling or emotional eating. The stain can also lead to more conflict and arguments between partners. Be alert to these behaviors - if they are causing you trouble, consider seeking help from a psychologist or community mental health clinic before the problem gets worse.

**Turn these challenging times into opportunities for real growth and change.** Times like this, while difficult, can offer opportunities to take stock of your current situation and make needed changes. Think of ways that these economic challenges can motivate you to find healthier ways to deal with stress. Try taking a walk - it's an inexpensive way to get good exercise. Having dinner at home with your family may not only save you money, but help bring

you closer together. Consider learning a new skill. Take a course through your employer or look into low-cost resources in your community that can lead to a better job. The key is to use this time to think outside the box and try new ways of managing your life.

**Ask for professional support.** Credit counseling services and financial planners are available to help you take control over your money situation. If you continue to be overwhelmed by the stress, you may want to talk with a psychologist who can help you address the emotions behind your financial worries, manage stress, and change unhealthy behaviors.

More information about the *2008 APA Stress in America Survey* is available.

*This tip sheet was made possible with help from APA member Nancy Molitor, PhD. Reprinted from the American Psychological Association.*

## Dollars and Sense: Talking to your Children about the Economy

In this time of extreme economic stress, it is difficult to leave the problem of the economy off the kitchen table. Fears about mortgages, college tuition, retirement, and day-to-day expenses haunt the halls of many family homes. Children are no doubt noticing the increased stress of their parents during the financial crisis and may be experiencing their own stress as a result.

"Children are extremely resilient," says psychologist Dr. David Palmiter, "However, they are keenly aware of tension in the household, whether it is from the financial situation or from other familiar problems.. It is important to be honest with your children, yet only share information that you think they can handle."

While open communication between parents and their children is the foundation of a healthy relationship, parents should not overburden their children. Instead, address problems at age-appropriate levels. For example, what a parent might tell a younger child about the family's financial situation is different than what they might tell an adolescent; young children may interpret the situation as more dire than it actually is. Older children and teens will be more exposed to the news - discussing their understanding of the economy and its implication on the family can be reassuring.

How parents phrase their worries about the financial situation influences a child's interpretation. Younger children may take overheard statements such as "we're going to the poor house" literally and thus internalize fears about losing their home. Talking to your children and asking them their thoughts and ideas will help clear up any misunderstanding, ease their anxieties, and reduce their stress.

...continued Page 7



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## Managing Your Stress ...continued from Page 5

Families can also use their financial situations as an opportunity to manage their children's expectations for material goods.

Teach your children about budgeting, perhaps by setting up a "savings account" for their pocket money, or by allocating a certain amount for charity, will help them better understand that an Xbox or an iPod might not be feasible for the holidays this year. Furthermore, these times offer an opportunity to focus on the positive aspects, and prioritizing what's important relationships with loved ones and friends, the family's health - can lessen children's fears and reinforce family values.

Pay attention to signals that your child may experience: sleep and appetite changes, nightmares or avoidance of situations or people. Parents who use healthy stress-relieving behaviors set a good example for children. Taking a family walk after dinner or playing a board game in the evening are not only positive alternatives to distance oneself from the news, but also inexpensive activities that foster bonding time.

Being proactive about managing your family's stress and continuing life as usual, despite what's happening on Wall Street or Main Street, will help make a psychologically healthy home even in a time of economic unrest.

*Special thanks to APA members Dr. David Palmiter, Dr. Mary Alvord, and Dr. Nabil Hassan El Ghoroury for their help with this article. Reprinted from the American Psychological Association.*

### Stress Tip Sheet

In today's fast-paced and ever-connected world, stress has become a fact of life. Stress can cause people to feel overwhelmed or pushed to the limit. The American Psychological Association's 2007 "Stress in America" poll found that one-third of people in the U.S. report experiencing extreme levels of stress. In addition, nearly one-in-five report that they are experiencing high levels of stress 15 or more days per month. While low to moderate levels of stress can be good for you when managed in healthy ways, extreme stress takes both an emotional and physical toll on the individual.

With the consequences of poorly managed stress ranging from fatigue to heart disease and obesity, it is important to know how to recognize high stress levels and take action to handle it in healthy ways. Being able to control stress is a learned behavior, and stress can be effectively managed by taking small steps toward changing unhealthy behaviors.

*APA offers the following tips on how to manage your stress:*

**Understand how you experience stress.** Everyone experiences stress differently. How do you know when you are stressed? "How are your thoughts or behaviors different from times when you do not feel stressed?"

**Identify your sources of stress.** What events or situations trigger stressful feelings?" Are they related to your children, family, health, financial decisions, work, relationships or something else?"

**Learn your own stress signals.** People experience stress in different ways. You may have a hard time concentrating or making decisions, feel angry, irritable or out of control, or experience headaches, muscle tension or a lack of energy. Gauge your stress signals.

**Recognize how you deal with stress.** Determine if you are using unhealthy behaviors (such as smoking, drinking alcohol and over/under eating) to cope. Is this a routine behavior, or is it specific to certain events or situations? Do you make unhealthy choices as a result of feeling rushed and overwhelmed?

**Find healthy ways to manage stress.** Consider healthy, stress-reducing activities such as meditation and exercise by talking things out with friends or family. Keep in mind that unhealthy behaviors develop over time and can be difficult to change. Don't take on too much at once. Focus on changing only one behavior at a time.

**Take care of yourself.** Eat right, get enough sleep, drink plenty of water and engage in regular physical activity. Ensure you have a healthy mind and body through activities like engaging in yoga, taking a short walk, going to the gym or playing sports to enhance both your physical and mental health. Take regular vacations or other breaks from work. No matter how hectic life gets, make time for yourself - even if it's just simple things like reading a good book or listening to your favorite music.

**Reach out for support.** Accepting help from supportive friends and family can improve your ability to manage stress. If you continue to feel overwhelmed by stress, you may want to talk to a psychologist, who can help you better manage stress and change unhealthy behavior.

*Reprinted from the American Psychological Association. Reprinted from the February 2009, The Florida Surveyor.*

# SURVEYORS ARE DETECTIVES, HISTORIANS

*Article originally appeared in the Dispatch (Moline) and the Argus (Rock Island) papers on Sunday, March 22nd, by Brian Krans, staff writer, Copyright 2009. Moline Dispatch Publishing Co. Reprinted with permission.*

In ancient Egypt, surveyors kept homes dry from the flooding Nile River and were responsible for the near-perfect squareness of the Great Pyramid of Giza.

Around 300 A.D., Romans established surveying as a profession, which helped them maintain their vast empire and tax system.

Nowadays, when many people think of surveyors, they remember seeing them along highways, one holding a big stick and the other with a weird-looking instrument. Despite their long history, surveyors' job duties seem elusive to the general public.

"We're like detectives," Jimmie Rose, vice president of Ament Inc., Moline, said Monday, the beginning of National Surveyors Week. Mr. Rose began surveying 32 years ago because he wanted to work outside.

Applying measurements, mathematical equations and the law, surveyors are depended on to settle boundary disputes, because in many cases, people learn the land they think they're buying isn't all there.

"Considering a home is the biggest purchase most people will make, most of them don't look at the land survey before buying," Mr. Rose said. "You wouldn't buy a car without looking at it first, would you?"

Jim Abbitt, Quad-Cities survey manager with McClure Engineering Associates Inc. in East Moline, said between securing boundaries and doing topography for private and commercial projects, a surveyor's job goes beyond making measurements. It can sometimes involve digging through survey records nearly 160 years old.

"We're a bit of historian," he said. "(We work closely with the office's of the Recorder, County Engineer, and Township Officials. And as I say to the guys here, we're always looking under (numerous) rocks for clues."

Mr. Abbitt became involved with land surveying in 1974 while in a vocational jobs class at United Township High School. Even after getting an associates degree in architecture, he returned to surveying.

The job description itself is pretty sweet: work outdoors, use a company vehicle -- which could include an ATV -- and work with up to \$165,000 worth of equipment.

But it is not that anyone can be a land surveyor. It takes about eight years of training -- about the same as a medical doctor. Training is continuous because technology changes. Mr. Rose said a high-density laser scanner can survey land through cars, and other equipment works off the global positioning system.

Mr. Abbitt said that about six years ago, while he was working for the U.S. Army Corps of Engineers, a landowner in Quincy cut down 30 acres of timber on what he thought was his land. Mr. Abbitt was called in to survey the land, the majority of which turned out to belong to the federal government. The key point in the case was a clear understanding of where the man's land began and the government's ended.

Ament Engineering employees Ryan Musser, a survey technician, left, and Chad Macke, a land survey intern, study some of the images which a \$135,000 high density laser scanner produced near the 4800 block of 16th Street, Moline.

*Reprinted from the Illinois Surveyor, Spring 2009.*

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# “TRUE NORTH”

by Jeffrey N. Lucas, PSM

“What is truth,” asked Pontius Pilate. My inquiry isn’t nearly as profound as Pilate’s but have you ever wondered what the term “True North” really means? To slightly re-phrase Pilate’s question, “What is true north?” I have heard many answers to this question given by regurgitating the question in the form of an answer. “True north is true north!” This is no answer at all. It’s a circular argument that gets us nowhere in discovering the “truth.” I think this term “True North,” had a specific meaning at one point in time, but now is not misused and has no real meaning at all. It should be struck from our surveying vocabulary and banished to the wilderness never to be heard from again. Those who use the term should be forced to surrender their survey license for failure to join the twentieth century (not to mention the new one coming up or already entered into, depending on your persuasion). And this would be a time for a clean break. If you failed to join the last century, you shouldn’t be a part of the next one.

To begin my inquiry, I turned to the Glossary of the Mapping Sciences, 1994 edition, jointly published by the American Society for Photogrammetry and Remote Sensing (ASPRS), the American Congress on Surveying and Mapping (ACSM), and the American Society of Civil Engineers (ASCE). After all, it’s not knowing all the answers: it’s being able to find the answers that separate the men from the boys, right? Unfortunately, the glossary was a big let down. They don’t have a definition for “true north.” They don’t even have a definition of “north” for crying out loud. I turned to Black’s Dictionary next and started to make some headway. I found “true” and I found “north”. It’s now becoming apparent that I’m going to have to break this problem down into its constituent parts in order to come up with a satisfactory answer.

First of all, and before I go into that, let me run down the “norths” that I have come to know. There is, of course, astronomic north. This is probably the basis for origination of the term “True North” as it relates to surveying. After all, most of the country, with the exception of the original thirteen colonies and places like Tennessee and Kentucky, were subdivided during the public land surveys. In the early days, at least, these surveys were run with a compass. The principal meridian of any given subdivision was to be run on a “true” north-south line. How did they define “true?” Some of the earliest instructions to deputy surveyors state that they were to hang a plumb line, observe Polaris, and adjust their compass accordingly - thus calibrating to “true north.”

**Grid north is sometimes referred to as “true north.” This definition is also somewhat suspect. After all, this definition is subject to change depending on your location as well. The three state plane coordinate zones for the State of Florida all have their own reckoning of grid north. Other states with multiple zones have the same situation.**

Along these same lines and in keeping with the thought of the Subdivision of the Public Domain, “true north” has also been interpreted to mean the cardinal directions run along the meridional lines of the sections. The bearing of a compass when pointed “due north” has also been interpreted to mean “true north.” Of course, we know that magnetic north is subject to change and is somewhat unreliable due to local attraction, so this definition does not garner much support.

Grid north is sometimes referred to as “true north.” This definition is also somewhat suspect. After all, this definition is subject to change depending on your location, as well. The three state plane coordinate zones for the State of Florida all have their own reckoning of grid north. Other states with multiple zones have the same situation. In addition, grid north will be different given the source datum. Coordinates derived from the 1927 adjustment will be different than coordinates derived from the 1983 adjustment, and subsequent adjustments will further define and redefine the location of grid north. How can it be true, if it’s constantly changing?

How about “true north” based on the ellipsoid? The first question to ask here is what ellipsoid? One that we used for a long time was Clarke of 1866. This is what the North American Datum on 1927 was based on, but there were plenty of others. Airy of 1830, Bessel of 1841, Clarke of 1880, Everest of 1830, Fischer of 1968, GRS of 1967, Hough of 1956, WGS 60 - you get my point. Each of these mathematical representations of the Earth has a different definition of north. If one definition is true, then the others must be false, true?

Other, less common definitions of “true north” include reference to a deed line or reference to a line on a recorded plat. After all, in both of these cases, the world within which you are working (the deed or plat) is based on the north that was used to derive the system of bearings and angles revealed on the document, thus controlling your orientation and thereby making north - “true north” for your closed system. Another less obvious north is the north derived from the rotational axis of the Earth. Maybe it’s abundantly obvious to you, but I had never even thought of this “north” until a few weeks ago when it came up in a conversation I was having with a surveyor in Ohio. Apparently he has an instrument, a type of gyro, that will orient itself to north based on the rotation of the Earth.

One last “north” that I just recently came across was with a senior citizen in Gulf Shores. I was foolish enough to ask the question: “What is true north?” And someone replied that it was a “General North.” We quickly concluded that General North was a Yankee general who marched on Meridian, Mississippi during the Civil War. Ah Hum! And I’m sure there are many other definitions and I’ve probably only scratch the surface, but we must press on.

We have now exhausted, at least in my mind, all of the obvious answers and must now break our term down in order to determine the “Truth” of the matter. Let’s start with the easy one first, “north”. I can tell you the definition of north without even looking it up in a dictionary: it’s the opposite of “south.” But just for yucks, I’ll

...continued Page 19



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# PROGRAM SCHEDULE 2010 ISPLS CONVENTION

## Indianapolis Marriott East, Indianapolis, IN (January 13-15, 2010)

### Wednesday, January 13, 2010

#### “Storm Water Construction/Land Disturbance: Preparation, Implementation, & Management”

Randy Braun (3 CEH Elective)

The session will focus on the development of a construction of a storm water pollution prevention plan, implementation of the plan, and overall project management. This session will teach participants about the principles of erosion and sediment control/storm water management, storm water quality measures, and project site management techniques.

#### “Mechanic’s Liens” - William Ferngren (3 CEH Elective)

The attendees will learn about persons entitled to a Lien; Lien notice requirements; contents of sworn statements, pre-lien notices, releasing the lien, foreclosure action remedies, owner’s personal liability, and other lien pitfalls.

#### “Floodplains FEMA/NFIP for Land Surveyors and Engineers”

William Tingle (3 CEH Elective)

The attendees will learn the history, background & purpose of FEMA. Floodplain maps and studies, elevation certificates and LOMC will be discussed.

#### “Microsoft Excel 2007: Intermediate”

Casey Glanders (3 CEH Elective)

The session will focus on working with functions and formulas; managing tables; enhancing your workbook; and finalizing your workbook. Prerequisites: MS Excel 2007 Basic or commensurate knowledge and experience.

#### “The Business of Laser Scanning: Hype or Competitive Advantage”

Gregory Schneider (3 CEH Elective)

During this presentation, you will learn how to: lower costs and submit more competitive job bids; win more contracts for both routine surveys and high-end jobs; meet the requirements of customers incorporating HDSTM into their project specifications; reduce labor, increase safety, and boost profit margins on every job; improve customer satisfaction with more accurate and detailed surveying reports.

#### “Title and Survey Issues” - Wendy Gibbons (3 CEH Elective)

The attendees will learn title guarantees vs. title policy coverage; types of surveys and legal description issues, resolving access, encroachments, and boundary dispute issues; title company survey requirements for providing affirmative coverage; title endorsements relating to surveys and survey requirements.

#### “County Surveyor Roundtable”

Michael Stevenson, et al (3 CEH Elective)

The following topics will be discussed: Section corner perpetuation (County Surveyor methods vs. Private Surveyor) and the section corner perpetuation fund; regulated drains and the drainage board; county surveyor legislative issues and importance; county surveyor budget issues and dealing with the council; county surveyor salary discrepancies throughout the state; and other areas where the county surveyor is involved (GIS, APC, Etc.)

### Thursday, January 14, 2010

#### “The Business of Laser Scanning: Hype or Competitive Advantage”

Greg Schneider (3 CEH Elective) Repeat of Wednesday class

#### “Floodplains FEMA/NFIP for Land Surveyors and Engineers”

William Tingle (3 CEH Elective) Repeat of Wednesday class

#### “Indiana Easements and Rights of Way”

Gary Kent & Dennis McKinney (6 CEH Mandatory)

This seminar will familiarize attendees with Definitions, Types of Easements, Creating Written Easements, Unwritten Easements, Use of an Easement, Terminating/Extinguishing easements, Railroads, and Public roads.

#### “Bottom Line - Financial Management”

David Wahby (6 CEH Elective)

This program is designed to peel away the layers of mystery and provide you with the necessary basics - specifically as they pertain to firm management. We will explore the ins and outs of the income statement, company budgeting and the critical financial aspects of project management. Learn the differences between cash basis versus accrual basis revenue and expense recognition methods (and when, and when not, to use each method). Understand gross revenue, net service revenue, direct expenses and reimbursements. Learn how overhead is determined and how it applies to individual projects. Come to grips with establishing a company budget. Become proficient in extracting and then using key financial measurements such as the effective multiplier, breakeven overhead rate, target billing multiplier and labor utilization percentage. Find out how to create a no nonsense financial instruments dashboard for your firm that will allow you to efficiently, effectively and confidently follow and manage your practice. Find out why traditional profit center accounting by department or office - all the rage at larger firms - is generally a bad idea. Discover new ways to increase cash flow.

#### “Boundary Dispute Resolution”

Jeff Lucas (6 CEH Mandatory) (Intermediate to Advanced Level)

The principles of law used by the courts when dealing with conflicts in boundaries will be studied in detail so that the student will understand and comprehend these principles. In many situations, conflicts in the evidence must be resolved by the surveyor in order to, make a correct determination of the boundary, but also to leave significant footsteps behind for following surveyors to find. How do we, as surveyors, resolve these boundary conflicts? This seminar will not only look at conflicts in boundary evidence, but will also explore effective ways of resolving these conflicts before they become full blown boundary disputes between neighbors, that in many cases, turn into lawsuits. In addition, methods for resolving boundary disputes will also be studied leaving the seminar student with some effective tools for handling these situations in everyday practice.

...continued Page 14

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## Program Schedule

...continued from Page 13

### Friday, January 15, 2010

#### “Microsoft Excel 2007:Intermediate”

Casey Glanders (3 CEH Elective) Repeat of Wednesday class

#### “Storm Water Construction/Land Disturbance: Preparation, Implementation, & Management

Randy Braun ( 3 CEH Elective) Repeat of Wednesday class

#### “Ethics for the Professional PLS (Doing the right thing even when you aren’t sure what that is)

Larry Phipps (3 CEH Mandatory) AM Session or PM Session  
Students will discuss the meaning of professional ethics and its importance to land surveying. The group will review and discuss the three areas of professional obligation: Obligation to the public, obligation to the client, and obligation to other professionals. For classes given in specific states, the local code will be compared and contrasted with the NCEES Model code.

#### “The Engaged Employee - Unleash the Potential”

David Wahby (3 CEH Elective) AM Session or PM Session  
In a high-touch service business such as ours the difference between your firm’s performance and the next, in the eyes of the client, often comes down to the attitude and mindset of individual members of your firm doing the client’s work.

A key success factor for any professional service firm is the ability to attract, motivate and retain the best and brightest staff possible. People have all sorts of needs ranging from the most basic requirements for food, clothing, shelter and security; to higher order needs for self-fulfillment, substance and meaning in their lives. Join us as we explore practical management practices and tactics you can use at your firm to help your firm meet these requirements in a way that not only benefits your staff, but propels the firm toward achieving its goals as an organization.

In this fast paced session we will explore recognition and reward initiatives, the critical role of principals and managers in maintaining a highly motivated staff, key non-financial practices along with the how-to of developing an incentive compensation plan at your firm.

#### “Water Boundaries” (Intermediate to Advanced Level)

Jeffery Lucas (3 CEH Mandatory) AM Session or PM Session  
This seminar will cover the basic concepts behind water boundaries and how those concepts affect the private practice land surveyor. The history of water boundaries will be discussed including the “equal footing” doctrine, “navigability,” “submerged lands,” “mean high tide,” “high water mark,” and other issues affecting the identification and location of the boundary between the upland owner and submerged lands belonging to the sovereign. Necessary to any discussion of water boundaries is the commerce power of the Federal Government and the concepts of public and private waters. Non-navigable and man-made waters will also be discussed. The riparian and littoral rights of the upland owner and the problems facing the boundary surveyor will be studied. At least six court cases will be studied on the issue of water boundaries.

## Technician Program

### *Thursday, January 14, 2009 Technician Program*

#### “Safety for Surveying Field Technicians” (Technician Program)

Ronald Koons (3 CEH Elective)

This presentation will give surveying field technicians a broad introduction to field safety procedures and OSHA requirements. There will be a section on Traffic Safety that will cover the Manual on Traffic Control Devices; Part VI; Temporary Traffic Control. High visibility Apparel and how it applies to OSHA, the MUTCD, and FHWA will also be covered. These should give basic knowledge on what is needed to protect field crews while working in the right of way.

#### “Rule 2 - Qualifications for Examination-Current Requirements Effective 2009

John Stephens & Richard Hudson (3 CEH Elective)

Attendees will be introduced to the statute law and administrative code rules that mandate the requirements for licensure. The current Indiana Administrative Code will be reviewed regarding the changes that are currently in effect in 2009. The review will include particular courses that meet the education requirements , a general review of the work experience required for admission for examination, and the application process for both LSIT and LS examinations. Together, attendees will discuss the necessary requirements and develop their particular paths to obtain licensure.

### *Friday, January 15, 2009 Technician Program*

#### “Fundamentals of Surveying Calculations” (Technician Program)

Wesley Crawford (6 CEH Elective)

This is a “show me where the numbers come from” seminar of the fundamental computations associated with surveying. Attendees will hand calculate a traverse, determine coordinates of a small structure and calculate radial layout data. Basic coordinate geometry will be introduced and applied. Calculation of curve parts and layout data will be determined. A hand calculator capable of determining coordinate geometry is required.

## Meeting Handouts

To eliminate the cost of printing the ISPLS Board of Directors will provide in each attendee’s convention packet a CD containing all program material. The material also will be provided to attendees upon completion of registration for the convention at a ftp site.

# CONVENTION REGISTRATION FORM

## Wednesday, January 13, 2010

8:00 - 12:00 p.m. Board of Directors Meeting (Patriot Boardroom)

12:00 - 6:00 p.m. **\*\*Registration\*\* Atrium\*\***

1:00 - 4:00 p.m. Storm Water Construction/Land Disturbance:  
Preparation, Implementation, & Mgmt.  
Randy Braun, et al (3 CEH Elective)

1:00 - 4:00 p.m. Mechanic's Liens  
William Ferngren (3 CEH Elective)

1:00 - 4:00 p.m. Floodplains FEMA/NFIP for Land Surveyors &  
Engineers - William Tingle (3 CEH Elective)

1:00 - 4:00 p.m. Microsoft Excel 2007 : Intermediate  
Casey Glanders (3 CEH Elective)

1:00 - 4:00 p.m. The Business of Laser Scanning:  
Hype or Competitive Advantage?  
Gregory Schneider (3 CEH Elective)

1:00 - 4:00 p.m. Title and Survey Issues  
Wendy Gibbons (3 CEH Elective)

1:00 - 4:00 p.m. County Surveyors Roundtable  
Michael Stevenson, et al (3 CEH Elective)

1:00 - 6:00 p.m. Exhibit Hall Opens (Grand Ballroom)

4:00 - 6:00 p.m. Exhibitor Reception (Exhibit Hall Grand Ballroom)

6:00 - 8:00 p.m. Vincennes & Purdue Alumni & Friends Reunion  
(Veteran's Hall 1-2 & 4-5)

7:00 - 9:00 p.m. Las Vegas Casino Party (Indianapolis Ballroom A)

## Thursday, January 14, 2010

All seminars will be pre-registered. Classroom space may be limited. Please indicate first choice (✓) and alternate (A). NOTE: Seminars must be attended in full to receive CEH credit. **Registration in a seminar that is a Part 1 of 2 automatically registers you in Part 2.**

7:00 - 5:00 p.m. **\*\*Registration\*\* Atrium\*\***

7:00 - 5:00 p.m. Exhibit Hall Open (Grand Ballroom)

8:00 - 11:00 a.m. The Business of Laser Scanning:  
Hype or Competitive Advantage?  
Gregory Schneider (3 CEH Elective) Repeat

8:00 - 11:00 a.m. Indiana Easements & Rights of Way  
Gary Kent/Dennis McKinney  
(6 CEH Mandatory) (Part 1 of 2)

8:15 - 11:15 a.m. Bottom Line - Financial Management  
David Wahby (6 CEH Elective) (Part 1 of 2)

8:30 - 11:30 a.m. Boundary Dispute Resolution  
Jeffery Lucas (6 CEH Mandatory) (Part 1 of 2)

11:00 - 1:00 p.m. Lunch (Liberty Hall) Staggered

12:15 - 3:15 p.m. Indiana Easements & Rights of Way  
Gary Kent/Dennis McKinney (Part 2 of 2)

12:30 - 3:30 p.m. Floodplains FEMA/NFIP for Land Surveyors &  
Engineers - William Tingle (3 CEH Elective)  
Repeat Wednesday's class

12:30 - 3:30 p.m. Bottom Line - Financial Management  
David Wahby (Part 2 of 2)

12:45 - 3:45 p.m. Boundary Dispute Resolution  
Jeffery Lucas (Part 2 of 2)

4:00 - 5:30 p.m. ISPLS Business Meeting (Indpls Ballroom B-E)

6:00 p.m. Social & Banquet (Liberty Ballroom)

## Friday, January 15, 2010

All seminars will be pre-registered. Classroom space may be limited. Please indicate first choice (✓) and alternate (A). NOTE: Seminars must be attended in full to receive CEH credit. **Registration in a seminar that is a Part 1 of 2 automatically registers you in Part 2.**

7:00 - 12:00 p.m. **\*\*Registration\*\* Atrium\*\***

7:00 - 8:00 a.m. Past Presidents Breakfast (Library)

7:00 - 9:00 a.m. Exhibit Hall closes at 9:00 a.m.

8:45 - 11:45 a.m. Microsoft Excel 2007 : Intermediate  
Casey Glanders (3 CEH Elective) Repeat

8:45 - 11:45 a.m. Ethics for the Professional Surveyor  
Larry Phipps (3 CEH Mandatory)

8:45 - 11:45 a.m. The Engaged Employee - Unleash the Potential  
David Wahby (3 CEH Elective)

8:45 - 11:45 a.m. Water Boundaries  
Jeff Lucas (3 CEH Mandatory)

12:00 - 1:30 p.m. Lunch (Together Liberty Hall)

1:30 - 4:30 p.m. Storm Water Construction/Land Disturbance:  
Preparation, Implementation, & Mgmt.  
Randy Braun, et al (3 CEH Elective) Repeat

1:30 - 4:30 p.m. Ethics for the Professional Surveyor  
Larry Phipps (3 CEH Mandatory) Repeat

1:30 - 4:30 p.m. The Engaged Employee- Unleash the Potential  
David Wahby (3 CEH Elective) Repeat

1:30 - 4:30 p.m. Water Boundaries  
Jeff Lucas (3 CEH Mandatory) Repeat



**Technician Program**

Participants signed up for the Technician Program are not eligible to attend the other convention sessions. If you wish to attend the other sessions you must pay the full or 1 day convention fee. If you are a licensed land surveyor and wish to attend the Technician Program for credit you must pay the full or 1 day convention fee. The Technician Program fee includes meetings, handouts and luncheons only.

**Thursday, January 14, 2010**

8:00 - 11:00 a.m. Safety for Surveying Field Technicians  
Ronald Koons (3 CEH Elective)

1:00 - 4:00 p.m. Rule2- Qualifications for Examination-Current Requirements Effective 2009 (3 CEH Elective)  
John Stephens / Richard Hudson

**Friday, January 15, 2010**

8:45 - 11:45 a.m. Fundamentals of Surveying Calculations  
Wesley Crawford (6 CEH Elective)

**LODGING**

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Convention rates (below) have been arranged. **Please indicate you are attending the 2010 ISPLS Convention when making reservation.** Reservations must be received by 12/31/09 in order to guarantee room and availability.

Single: \$109.00 Double: \$109.00  
Triple: \$109.00 Quad: \$109.00

Registrations received after 12/31/09 (including walk-in's) will include a **\$50.00 late fee**, and will be accepted based on available space, and will not be guaranteed handouts or meals. Refund requests received before 1/04/10, a 50% discount will be made. After 1/04/010, no refunds will be made.

**No further Registration will be accepted after 1/02/10.**

After 1/02/10 registration will be at the door with availability of seating.

The **full time registration** fee for the convention includes all handouts, refreshment breaks, two luncheons and the banquet. The registration fee for **spouses** includes a like number of meals. The **student** (full time) registration fee includes meetings and luncheons only. **One-day** registrant fee includes handouts and luncheons for the day registered.

The **technician/technical program** fee includes technician/technical meetings, technician/technical handouts and luncheons only. Participants signed up for the technician/technical program are not eligible to attend the other convention sessions. If you wish to attend the other sessions you must pay the full or 1 day convention fee. If you are a licensed land surveyor and wish to attend the Tech program for credit you must pay the full or 1 day convention fee.

As a reminder indicate your first choice with an (✓) and an Alternate (A).

We will appreciate it, if you will indicate by a (✓) that you plan on attending the Banquet on Thursday Night.

The Better Half of the Tecumseh Chapter of ISPLS will once again be having its Silent Auction for the Margaret Cunningham Scholarship Fund.

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**SINGLE REGISTRANT & SPOUSE FORM**

For additional registrants please make copies of this form or contact ISPLS for additional forms.

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<input type="checkbox"/> Member	\$340.00
<input type="checkbox"/> Non-Member	\$700.00
<input type="checkbox"/> Spouse	\$150.00
<input type="checkbox"/> Student (Full Time)	\$ 40.00
<input type="checkbox"/> 1 Day (Member)	\$250.00
<input type="checkbox"/> 1 Day (Non-Member)	\$575.00
<input type="checkbox"/> 1 Day Technician/Technical Program	\$ 75.00
<input type="checkbox"/> 2 Day Technician/Technical Program	\$150.00
<input type="checkbox"/> Late Fee (After 12/31/10)	\$ 50.00
<input type="checkbox"/> ACSM/NSPS Member (Full Convention)	\$340.00
<input type="checkbox"/> ACSM/NSPS Member (One Day)	\$250.00
<input type="checkbox"/> Extra Banquet Ticket Thursday Night	\$ 50.00

ACSM/NSPS Member- Membership # \_\_\_\_\_

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## SPOUSE/GUEST PROGRAM

Welcome to the 58th ISPLS Convention. For your convenience we have arranged to have the Hospitality Room for your enjoyment. Here you will find coffee, assorted soft drinks, a place to catch up with old friends, and make new ones.

The hospitality room at the Marriott Hotel will be available both Thursday from 7:00 a.m. to 5:00 p.m. and Friday from 7:00 a.m. to 3:00 p.m. You will meet in the Hospitality Room Thursday morning at 8:00 a.m. prior to your departure to a "Tour of the State Capitol". On Friday morning you meet in the hospitality room at 8:00 a.m. prior to your departure from the hotel to the "Studio 2000 Salon & Day Spa". A continental breakfast will be available in the hospitality room on Thursday and Friday morning.

An itinerary of fun, interesting and educational activities is planned for this year's ISPLS Spouse/Guest program. The itinerary for your group follows:

### **Thursday**

8:00 a.m.  
9:00 a.m.  
9:30 a.m.  
11:30 a.m.  
2:00 p.m.  
  
3:30 p.m.

### **January 14, 2010**

Meet in Hospitality Room  
Board Bus for Tour  
Tour of State Capitol  
Lunch at P.F. Chang's  
Play at Indiana Repertory Theatre  
"Love Letters"  
Board Bus and Return to Marriott

### **Friday**

8:00 a.m.  
9:00 a.m.  
9:30 a.m.  
1:00 p.m.  
3:30 p.m.

### **January 15, 2010**

Meet in Hospitality Room  
Board Bus for Studio 2000  
Salon & Day Spa  
Lunch at "Tea Cozy"  
Board Bus and Return to Marriott

# **HARRISON'S**

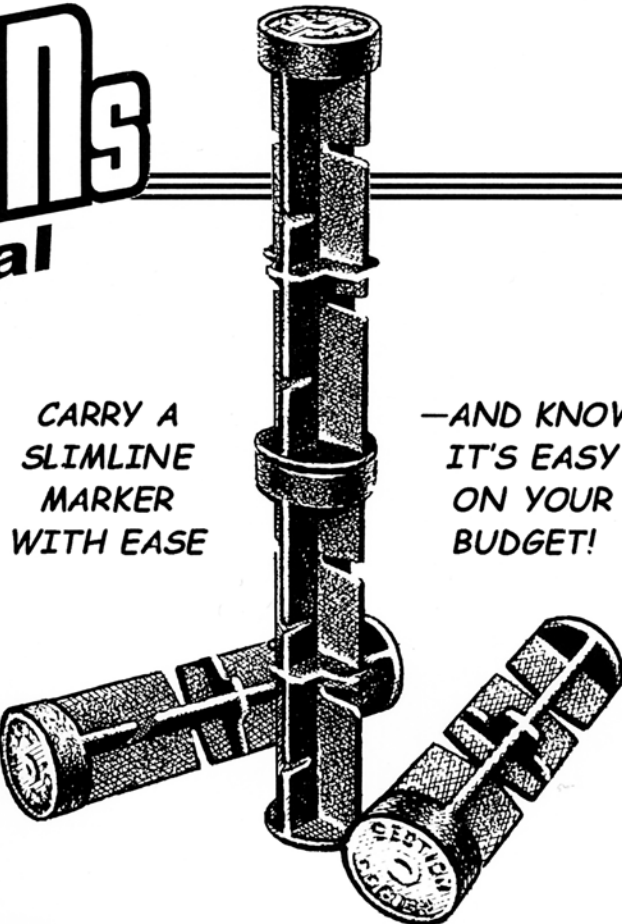
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# FORENSICS IN SURVEYING

By: Donald Wilson, LLS, PLS, RFP

Surveyors are investigators when it comes to the discovery and collection of documentary, physical, and parol evidence. To be a competent investigator in any field demands inquisitiveness, diligence, patience, and attention to detail. Part of the process also requires the preservation of evidence and careful note taking. There is no place for guesswork; facts raise no doubts and evidence does not lie.

Some of the guidelines followed during a proper investigation are noteworthy here. Most investigators do not work alone; they incorporate the observations and conclusions of others into their reasoning. Most investigators try to learn as much about a site as possible before arriving there. Deed research done beforehand tells field investigators what to look for and what they might find. Further research may be necessary if there is conflicting evidence or if additional questions arise.

One should always be aware of false readings. Metal items will give a reading with a metal detector, but only by uncovering, and following by observation, will insure that it is the monument sought. Similarly, words and phrases in title documents can be misleading, only a complete chain of documentation back to the origin, and compare with adjoining descriptions will lead to the correct combination of statements.

Investigators also take copious notes and photographs. They are vitally important at future times for refreshing the memory, or to document the conditions and circumstances as they were at the time the investigation took place.

Many failures in the investigative process can be attributed to lack of patience and thoroughness, premature conclusions without proper support, and lack of imagination.

Consider the situation where there is a deed with abutting calls only and an area recitation of "one acre, more or less". The deed was traced back in time to an estate from which three parcels were conveyed as a subdivision of a larger tract, but two of the deeds, including the one in question, had not been recorded. Field investigation by three different surveyors uncovered no physical evidence at the site.

The estate contained a list of grantees for the sales, which identified the first time each of the parcels was described. Since there was no public record, these grantees were searched, their heirs and successors determined, and, eventually, an individual was found who had "a lot of old papers in her attic."

Reviewing the papers produced the original deeds, which confirmed that there had never been a public record. How much time did this all take? Three years, working intermittently. The original deed contained a complete metes and bounds description - an acreage of one acre and 120 square rods (1314 acres). Based on this description, the surveyor found evidence at all four corners of the site. However, making an acre as stated in the found deed would have been wrong, and giving up too soon would not have solved the problem. With perseverance, the goal to locate the parcel and produce a survey plat was accomplished. Some things simply take longer, and demand more diligence than others.

Field investigation involves forensics too. Consider an estate divided in 1875 into two parcels which has incomplete and conflicting, metes and bounds descriptions. Only by finding evidence on

the ground can a proper conclusion be reached as to which of the conflicting pieces of evidence is acceptable. The difference in question was 20 rods (330 feet), and the site was destined to become a shopping center.

Initial reconnaissance by compass and pace revealed nothing, nor did the second visit using a compass and four-rod chain. The third and fourth visits utilized additional data from abutting parcels, while the fifth and sixth visits involved three searchers, including two surveyors.

A traverse was established through the area and corner evidence located on all of the abutting parcels. Back in the office, several theoretical positions were computed for the points in question. Then, further detailed search conducted with a rake to remove the overburdening of leaves and material, revealed a stone.

The position of the stone was located and compared with the remaining data, and the high point selected on it was found to be within 0.012 feet of being on line between two other stones marking the same line. It took seven and a half days with two and three people at a time to find that one piece of evidence on the entire site. Without the stone, the next available evidence would have been distance, which would have been erroneous by 20 rods, and one would have no way to prove this.

There is no substitute for thoroughness. Even though the odds sometimes stack up against being successful, one will never know for certain until one follows theories and possibilities to the very end. Sherlock Holmes has many times been quoted as saying, "when you have eliminated the impossible, whatever remains, however improbable, must be the truth."

*Reprinted from the Backsights & Foresights,  
Volume #19, Number 2, May 2009*

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## True North ...continued from Page 11

look it up in Black's. According to Mr. Black, north, "means due north: opposite direction of south." Funny how those things work out! Now let's move on to the word "true." Black's defines "true" which is conformable to the actual state of things." Webster's defines "true" as "in agreement with fact." All of the definitions of north that we discussed above are in agreement with some set of facts, aren't they? Give me an ellipsoid and the orientation to north will be "in agreement with fact(s)" concerning that ellipsoid. Similarly, give me a state plane coordinate zone and grid north is "conformable to (the) fact(s)" of that zone. So "true north" is whatever is conformable to the facts of a given system and it's the opposite of south. But when you consider ALL systems together there can be no "True North" because no one direction, which is the opposite of south, is "conformable to the actual state of things." It's everything and it's nothing! At the end of the matter we are left with our opening question, "What is true north?"

*Reprinted from the Nebraska Surveyor/Summer 1009*





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## Are You Prepared?

**By Ronald E. Koons, RoSaKo Safety**

It seems like hardly a month goes by that I don't receive a call from some company that needs to pass a pre-qualification program. This is branching out to just about any type of contractual work that is available. I first had contractors calling several years ago. They were bidding work for either large General Contractors or for large manufacturing concerns. To get a bid awarded they had to pass a pre-qualification to work for that particular company. Many of these pre-qualifications started out fairly simple. They wanted the previous two or three years OSHA injury reports and an application form had to be completed. They also wanted some type of Written Safety Program, but the requirements weren't too stringent. Over the past few years these requirements have grown to the point that getting pre-qualified for some companies is quite difficult. Let's look at some of the requirements that we are finding in today's work climate.

Just about every company has it's own format for completing the application procedure. This paperwork normally will identify all of the additional requirements that have to be met to be considered for being awarded a contract. Most now require at least the previous three years of the OSHA 300 A or 300 forms. The problem for many surveying firms is that they have never completed this form previously. Surveying and engineering companies were exempt from the OSHA requirement even if they have more than 10 workers. When we inform contractors of this fact OSHA still says that to work for that company it has to be completed. All of these forms are available on the OSHA website ([www.osha.gov](http://www.osha.gov)) under the Recordkeeping tab. Many pre-qualification programs now require a letter from your Workers Compensation Provider that gives the Experience Modification Rate (EMR). This rate is based upon your previous injury experience with your insurance provider. Most states require that it is averaged over a 3 year period which means a bad year can hurt your rate for three years after the injuries occur.

Some, but not all, plans ask for references that can verify previous work history for the type of work that you will be performing. That fact alone can make a new company have a difficult time getting the approval. Sometimes we will use an individual's history with another company as the basis for this requirement. It has worked a few times.

Of course the most requested item is a complete copy of the companies' Written Safety and Health Program. While years ago this requirement was just to verify that a program was in place, it now has come down to an actual approval for the written program materials. We have had some pre-qualification programs that were so rigid they required surveying firms to have elements such as forklift safety and welding. One of the big items that must be

in the company's policy is a firm disciplinary procedure. I don't like including this as a portion of the safety program because it is something that affects overall policies throughout the company. Disciplinary procedures are important to a company and can not only get your company approved to bid work but can also help to get you out of an OSHA citation if all of the procedures have been followed. The most important reason for having a firm disciplinary policy is that employees understand what can happen if they violate company policy.

Training is an important portion of most pre-qualification programs. That may require anything from simple records of employee training to a complete 30-hour OSHA Voluntary Compliance Course. Just within the past 30 days I have had two companies go through a pre-qualification procedure. In one case they had to have at least one person on site at all times who had completed an OSHA 10-Hour class and someone in the company had to have completed a 30-hour class. That person was required to make

periodic site safety inspections. The other company had to have everyone on site complete a 10-hour class. Verification was required before approval would be given. Each employee's name would be put on a list as an approved worker for that site. Without approval a person simply can't work. Keep in mind that this requirement for OSHA

10- and 30-Hour Voluntary Compliance classes is growing every year. Some states now require completion of at least a 10-hour class to work on any jobsite that receives state funding.

Providing Material Safety Data Sheets (MSDS) will most likely be a requirement, but in most cases they don't have to be provided until sometime prior to the start of a job. Always keep a supply of your MSDS available. A copy should be in each field vehicle. Having an extra copy of the packet available in your office is a great idea. When a customer asks for the MSDS you look very professional, if they are provided immediately.

I have seen a few other hoops that have to be jumped through, but the above list covers the major items. A few of the other items might include a list of any OSHA citations received in the previous 3 years and a copy of your company drug prevention program. The drug prevention program is getting more common each year. I hope this helps you to understand that most large companies are now putting a major emphasis on weeding out those companies who haven't at least attempted to comply with OSHA regulations. Many are carrying it a step further and simply forcing their subcontractors to work safely and to have the backup materials to give a basis for employee safety.

**One of the big items that must be  
someplace in company policy is a  
firm disciplinary procedure.**

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ISPLS Board of Directors meeting, Indianapolis, IN

### January 13, 2010

ISPLS Board of Directors meeting,  
Indianapolis Marriott East Hotel, Indianapolis, IN

### January 13-15, 2010

ISPLS 58th Annual Convention,  
Indianapolis Marriott East Hotel, Indianapolis, IN.

### February 17-20, 2010

Illinois Professional Land Surveyors 53rd Annual Conference, Crowne  
Plaza Hotel, Springfield, Illinois

### February 18-20, 2010

Kentucky Association Professional Surveyors,  
(KAPS) 2010 Convention, Bowling Green, KY,  
The University Plaza Hotel and Convention Center.

### February 23-26, 2010

Michigan Society of Professional Surveyors 69th Annual Meeting,  
Causeway Bay Hotel & Conference Center  
(Formerly Holiday Inn South) Lansing, MI

### April 24-28, 2010

ACSM/APLS 2010 Annual Conference and Technology Exhibi-  
tion,, Phoenix , Arizona; The American Congress on Surveying  
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sional Land Surveyors (APLS) is sponsoring the Annual Confer-  
ence & Technology Exhibition in Phoenix, AZ . All conference  
events will take place at the Phoenix Convention Center. Phoenix,  
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