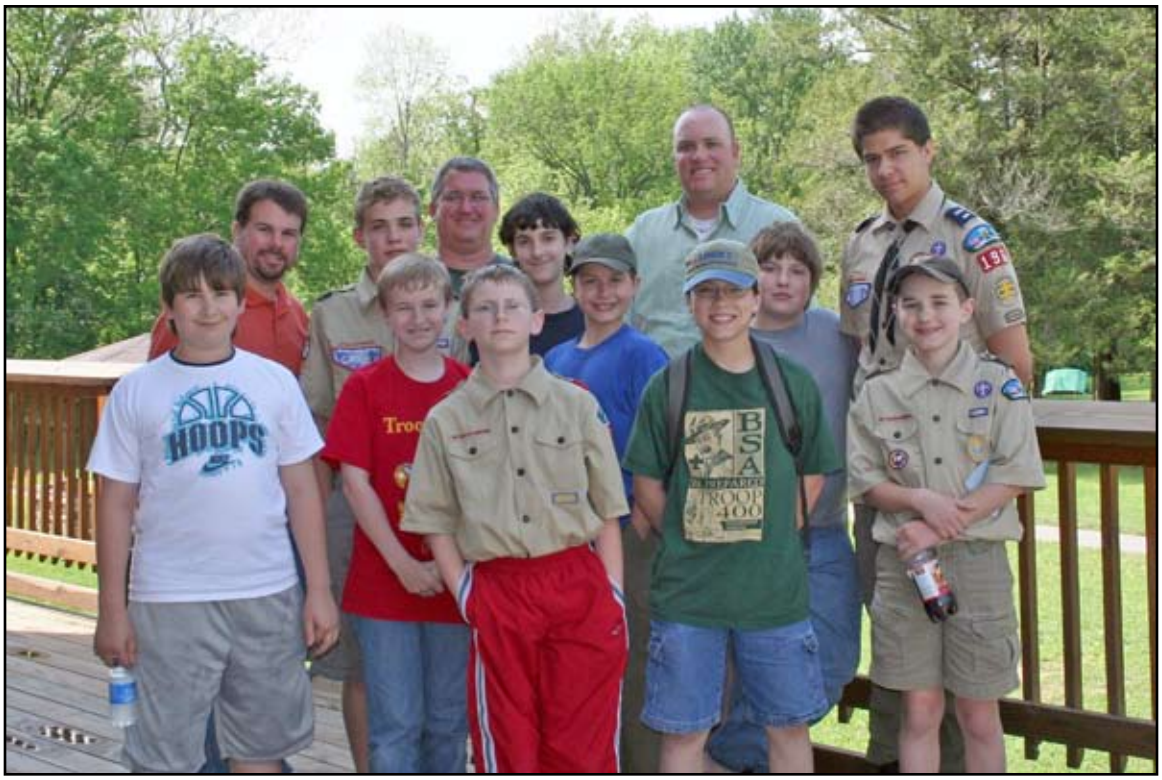
HOOSIER SURVEYOR

QUARTERLY PUBLICATION OF THE
INDIANA SOCIETY OF
PROFESSIONAL LAND SURVEYORS, INC.

VOLUME 36
NUMBER 1
SUMMER 2009

AFFILIATED WITH THE
AMERICAN CONGRESS ON
SURVEYING & MAPPING



Boy Scout Merit Badge

Members of eight Boy Scout troops who completed their work on the Surveying Merit Badge May 16th at Camp Belzer in Indianapolis pose with members of the Central Indiana Chapter of the Indiana Society of Professional Land Surveyors.
(See page 7 for article)

2009 OFFICERS & DIRECTORS

Dan Kovert - President
8193 Fawnsbrook Drive
Fishers, IN 46038
RES: (317) 841-1083 BUS: (317) 577-8204

Jim Tibbett - President Elect
R.R. 2 Box 240
Linton, IN 47441
RES: (812) 847-3254 BUS: (812) 847-1952

Todd Bauer - Vice President
9125 Blackwolf Pass
Leo, IN 46765
RES: (260) 627-2495 BUS: (260) 484-9900

Rich Hudson - Secretary
574 North 50 West
Valparaiso, IN 46385
RES: (219) 462-2946 BUS: (219) 462-1158

Dennis Grumpp - Treasurer
4244 S 650 W
New Palestine, IN 46163
RES:(317) 861-1844 BUS: (317) 826-7100

TERM EXPIRES JAN 2010
E. Donald Bengel
73 E. Division Road
Valparaiso, IN 46383
RES: (219) 465-0988 BUS: (219) 462-0690

Rich Hudson - Secretary

Mark Isaacs -Past President
4337 N County Rd 275 W
Browntown, IN 47220
RES: (812) 358-2702 BUS: (812) 372-0996

Ron Wharry
1357 E. Wabash St.
Frankfort, IN 46041
RES: (765) 654-4385 BUS: (765) 654-5910

TERM EXPIRES JAN 2011
Frank Ballintyn
2855 Plantation Ct.
Sellersburg, IN 47170
RES: (812) 246-9881 BUS: (812) 294-4306

Perry Cloyd
3906 Sycamore Drive
Columbus, IN 47203
RES: (812) 375-1157 BUS: (812) 376-6357

Dennis Grumpp - Treasurer

Dan Kovert - President

TERM EXPIRES 2012
Todd Bauer - Vice President

Carol Morman
1911 Ridgewood Circle
Lawrenceburg, IN 47025
RES: (812) 637-0568 BUS: (812) 637-6349

Ryan Swingley
6005 Woodmill Drive
Fishers, IN 46038
RES: (317) 596-2755 BUS: (317) 544-4996

Jim Tibbett - President Elect

ADMINISTRATIVE OFFICE
Dianne S. Bennett, Executive Director
55 Monument Circle, Suite 719
Indianapolis, IN 46204
Office: (317) 687-8859 Fax:(317)687-5053
ISPLS is a Not For Profit Corporation

COMMITTEE ASSIGNMENTS (2009)

Prof. Development Administrator: Todd Bauer

EDUCATION
Brad Cramer - Chair
Randy Compton
Bruce Franke
Justin Frazier
Mark Healy
Mark Hennessey
Doug Herendeen
Norman Hiselman
Steve Johnson
Brad Kramer
Lawrence Lambert
Carol Morman
Ryan Perry
Brian Rayl
Anthony Toscani

SCHOLARSHIPS
Troy Smith - Chair
Frank Ballintyn
Lee Bender
Phillip Burress
Mark Hennessey
Steve Johnson
James Orr
Mark Schepers

TRIG STAR
Tony Gregory -
(State Coordinator)
Keith Hood
Jeffrey Trout
Patrick Williams
Jeff Yatsko

Government Affairs Administrator: Jim Tibbett

BOARD OF REGISTRATION LIAISON
Todd Bauer - Chair

COUNTY SURVEYORS
Steve Murray - Liaison
Michael Stevenson

GOVERNOR GREAT LAKES COUNCIL
Don Bengel - Governor
Tony Gregory - Alternate

GPS-GIS MONUMENTATION
Tom Mahon - Chair
Matt Badger
Zach Beasley
Kevin Breitzke
Perry Cloyd
Matt Healy
David Lauer
Brian Matherly
Steve Murray
Gordon Perry
Ryan Swingley
Boudewijn van Gelder
Craig Williams

LEGISLATION
Mark Isaacs - Chair
David Ayala
Phil Beer
Kevin Breitzke
Kris Conover
Jason Henderson
Duane Mast
Richard Miller
Steve Murray
Jay Poe
Paul Sanders
Michael Stevenson
Ralph Wallem

Internal Affairs Administrator: Jim Tibbett

BY LAWS
Don Bengel - Chair
Robert Gross
Rich Hudson
Paul Maurer
William Stine

FINANCE & PLANNING
Dennis Grumpp - Chair
Dianne Bennett-ExDir.
Todd Bauer
Doug Herendeen
Dan Kovert
Jim Tibbett
Ron Wharry

NOMINATIONS
Mark Gardner - Chair
Jason Henderson
Rich Hudson
Paul Maurer

Communications Administrator: Todd Bauer

PUBLICATIONS & MEDIA
David Best - Chair
Todd Bauer
Dianne Bennett
Randy Compton
Mike Davis
Bruce Franke

MEMBERSHIP
Don West - Chair
Mark Hennessey
William Griepenstroh

PAST PRESIDENT'S COUNCIL
Mark Isaacs - Chair
Frank Ballintyn
Bill Clark
Perry Cloyd
Open to Past Presidents

PUBLIC INFORMATION & MARKETING
Ryan Swingley-Chair
Daniel Blann
Jason Coyle
Michael Duffy
Justin Frazier
Randell Gann
Orwic Johnson
Mark Schepers
Don West

ISPLS BOARD OF DIRECTORS (2009)

First row, l to r: Dennis Grumpp, New Palestine; Dan Kovert, Fishers; Carol Morman, Lawrenceburg; Don Bengel, Valparaiso; Jim Tibbett, Linton; Second row:, l to r: Mark Isaacs, Brownstown; Frank Ballintyn, Sellersburg; Ryan Swingley, Fishers; Rich Hudson, Valparaiso; Todd Bauer, Leo; Ron Wharry, Frankfort.
Not pictured: Perry Cloyd, Columbus.

HOOSIER SURVEYOR

VOLUME 36 NUMBER 1 SUMMER 2009

CONTENTS

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.

The Hoosier Surveyor is published quarterly by the Indiana Society of Professional Land Surveyors to inform land surveyors and related professions, government officials, educational institutions, libraries, contractors, suppliers and associated businesses and industries about land surveying affairs.

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.

Editorial Advertising Offices
55 Monument Circle, Suite 719
Indianapolis, IN 46204
Phone:(317) 687-8859 Fax: (317) 687-5053
Web Page: www.ispls.org EMail: ISPLS@aol.com

David B. H. Best - Editor
5402 Washington Boulevard
Indianapolis, IN 46220
Phone: (317) 251-5136
E-Mail: dbest.tj.gw@att.net

PRESIDENT'S THOUGHTS

by Dan Kovert, Fishers, Indiana

I hope that the summer is going well for everyone. With the economy still struggling, I've remarked that I've never worked so hard for so few jobs and so little fee in all my 22 years in this profession. Hopefully, the rest of the economy will follow the recovery of the stock market since its low in mid-March.

I have to give kudos to the entire Board of Directors for working long and hard on the 2009-2010 budget. With the market in the tank and our investments taking a hit, we were able to pass a budget that left the society with at least one year's worth of expenses in our investment account. This has been a long standing policy of the Board and was certainly tougher to meet this year than in any other in recent memory.

We did have some pressure from our membership to review our current investments and move away from equities into more fixed income. The Board policy has always been to maintain a portfolio of 50 percent equities and 50 percent fixed income with our financial management firm having the leeway to move ten percent either way from the 50/50 split. During discussions, the board felt that this was still an appropriate mix for the portfolio. Had the board modified this mix to something more conservative, we would have missed the almost 40 percent rebound of the stock market from the low.

Okay, enough about the stock market.

I was reading a newspaper article today talking about a profession where the evolution of technology was staggering over the past three decades or so. The equipment certainly didn't come cheap, however, even though it saved the time needed by the professional to complete their service.

This article certainly made me think that the author could have been talking about the surveying profession. Yep, the evolution of technology is certainly there – from chains and transits to robotic total stations and sub-centimeter grade GPS. Yes, the equipment is expensive. I don't think I have to remind any of you how much you paid for your robot. Yes, the advances certainly save us time. In case you've forgotten just how much time the advances in surveying equipment has saved us as a profession, just go out and traverse a section some time with a transit and steel tape.

Then I continued reading. Even with the advances in equipment and the time-savings provided, the average cost of the service increased nearly ten times ***after*** being adjusted for inflation. My bubble was burst – at that point I knew they weren't talking about surveying. Instead, the article was about the medical profession.

If you've been paying any attention at all, you've probably heard about the rising costs in health care. I know I've certainly continued to pay more and more each year for health care. And if you've been paying any attention at all, you'll notice that many in our profession have been ***lowering*** their fees to compete for projects.

So what's the difference? The medical profession is treated as a profession because they base their fees on the value of their service. We, on the other hand have reduced ourselves to selling our time as cheaply as possible. This is a mindset that needs to be changed throughout our entire profession.

The other problem we seem to have currently (and have had for quite some time) is respect from other professions. However, we as a profession seem to be adverse to building relationships with these other professions. We all know that attorneys have been given the legal ability to write descriptions. It seems to me that this should be a function completed only by professional land surveyors because we are the experts. Have we ever developed a relationship with the American Bar Association to let them know that we're the experts and that we provide a valuable service? I believe the answer is probably no.

Similarly, we've got geographic information specialists in every state, county and local government collecting data using GPS to include in their GIS. Hmmmm…..location of objects in relation to the earth's surface? Isn't that what professional land surveyors should be doing? Did we build a relationship with the geographic information folks? Again, the answer is mostly no.

Where are we headed next? Machine control GPS for construction layout? I believe we're going to miss the boat on this one, too, unless we act very quickly to let contractors know that we are the experts in this area. What about scanning? I have to believe that the day is coming when engineers and architects will be scanning their own projects, again leaving out the surveying profession for providing this information.

We can no longer sit back and believe that status quo is good enough. We have to aggressively develop relationships with these other professions and inform them of our expertise in these areas. As a very wise person once said, "You can't stay in your corner of the forest waiting for others to come to you. You have to go to them sometimes."

I believe one thing the economic downturn has taught all of us is that we need to be diverse in our services. Let's see what we can do to develop relationships and increase the perception by others of our profession.

And by the way, if you don't recognize the quote from above, ask your kids. It came from Winnie The Pooh.

Professionally yours,

Dan Kovert

ISPLS BOARD OF DIRECTORS MEETING HIGHLIGHTS

by Dianne Bennett, Executive Director

April 11, 2009

The ISPLS Board of Directors met on Saturday, April 11, 2009 at ISPLS headquarters. President Dan Kovert called the meeting to order at 9:02 a.m. The minutes and treasurer's report were reviewed and approved.

Adjustments to Agenda: Brady Kuhn, PLS and Dr. Tom Iseley, PhD, PE of IUPUI, gave a presentation regarding the Construction and Technology Land Surveying program. Dr. Iseley is looking for input/support from ISPLS.

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

Communications-Publications- The winter issue of the Hoosier Surveyor is on line.

Membership Roster - The 2009 membership roster will be complete shortly and then posted on the web site.

Past Presidents Council - A draft of the new foundation organizational document was discussed. A motion was made and passed for the "Foundation" to designate as foundation directors: Dan Kovert, Mark Isaacs, Jim Tibbett, Ed Sweetland and Troy Smith and to include the current scholarship money of $1867.00 to fund the foundation.

Public Information and Marketing - An update was given on the Boy Scout Surveying Merit Badge, Re-enactments, Indy 500 Outing, Original Field Note Scanning and the American Planning Association Spring Conference.

A motion was made and passed to approve the ISPLS Golf Outing, June 26th at Peru, Indiana and to pay the deposit for the golf course.

Professional Development - Education - The 2009 convention accounting is complete. The convention Income/Expense was $28,321.55.

The American Planning Association, Indiana Chapter, requested that the Society support of its Spring Conference in Indianapolis. A motion was made and passed not to support the request.

The BOD approved the Gary Kent Seminar "Title Issues in Indiana Law, Legal Surveys, Rights-of-Way and ALTA/ACSM Land Title Surveys".

Scholarship - A motion was made and passed to approve the committee's recommendation for the Vincennes University and Purdue University scholarship recipients.

Government Affairs - The next Registration Board meeting is April 17, 2009.

The board liaison is to prepare a list of names to present to the Governor's office and present that list at the May BOD meeting.

There was brief discussion on Machine Control.

GPS/GIS Monumentation - A report was presented on the Height Modernization Project. INDOT is working on their "CORS".

Legislation- A brief report was given regarding current legislation.

Finance and Planning - The April 2, 2009 Wallington Asset Management explanation letter and report was presented and discussed. The Wallington representative will be at the May meeting.

The ISPLS 2009/2010 working preliminary budget was reviewed.

Old Business - There was discussion on Purdue University Land Surveyor program, LS/SIT Review, Board Policies, and adjoining state convention attendance reimbursements.

New Business - IUPUI Construction Engineering Management Technology program was discussed.

Next BOD meeting will be May 16, 2009.

May 16, 2009

The ISPLS Board of Directors met on Saturday, May 16, 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: Wallington Asset Management Fiduciary meeting, Jeff Dowden gave a review of the Society investments.

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

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

Membership - The membership renewals will be mailed out early in June.

Web Site - A motion was made and passed to approve a fee schedule for an "Icon Link" for Sustaining members $300/year and non-Sustaining members $1,200/year.

ILTA Law Manual - There has been discussion with ILTA regarding working together on jointly updating the ILTA and ISPLS law manual. A motion was made and passed for ISPLS to join ILTA and purchase a copy of the ILTA Law Manual.

Past Presidents Council - Purdue McEntyre Scholarship - A motion was made and passed to increase the Purdue McEntyre Scholarship for 2009/2010 to $5000.

Public Information and Marketing - There was an update on the Boy Scout Surveying Merit Badge Camp and that there were 8 members of ISPLS who attended the Joint Indy 500 Outing on May 15, 2009.

Professional Development - Education - A report of the LS/SIT Review was given.

The ISPLS seminar on May 15th had 56 registered.

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

Trig Star - A written report was reviewed on the 2008/2009 NSPS Trig Star Contest. The state winners were: first place: Matthew Pukoszek of Munster High School; Second place: Casey Smith of Portage High School; and Third place: Patrick McIntyre of Munster High School.

Government Affairs - A motion was made and passed to prepare a letter to the Governor recommending Rich Hudson, Doug Lechner and Perry Cloyd for the appointment to the Indiana Registration Board for Land Surveyors.

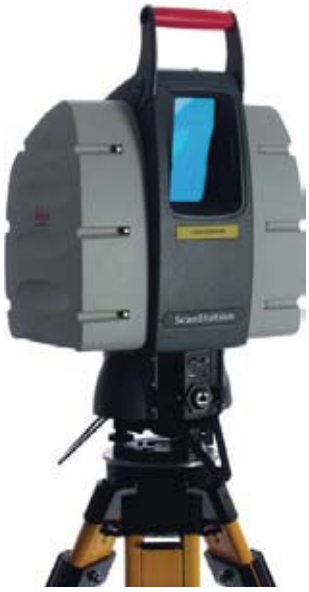
County Surveyors - The county surveyors continuing education legislation was passed.

GPS/GIS Monumentation - It was reported that INDOT "CORS" is up and steaming data.

Legislation - The Indiana/Michigan State Line bill has officially been signed by the Governor Mitch Daniels.

...continued Page 15

LEICA ScanStation 2
Laser Scanner

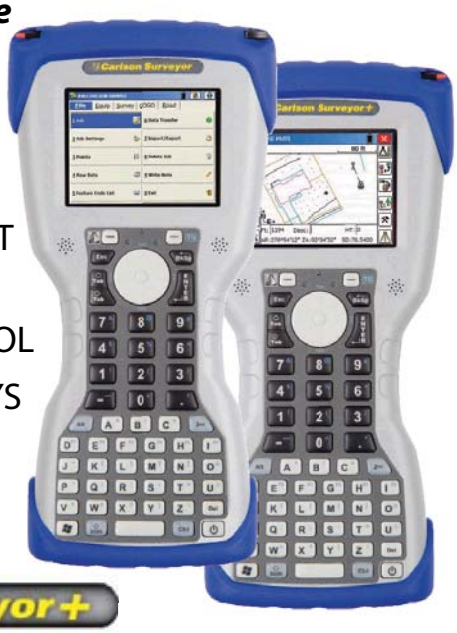


In addition to it's four fundamental total station features, Leica Scanstation has already proven to significantly reduce field labor in comparison to traditional methods. High-Definition Surveying™ (HDS™) has become even more profitable with as-built and topographic survey projects.

Use a scanner to tap into the growing markets of industrial process plants and forensic mapping!

The speed you need…
The reliability you deserve

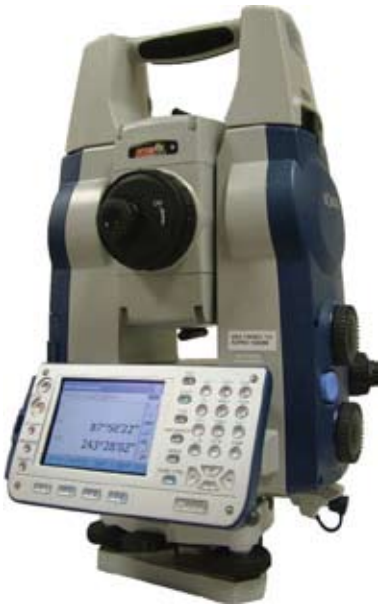
- COMPLETELY RUGGEDIZED
- MORE MEMORY
- COMPACT/CONVENIENT CONNECTIONS
- EASY TO HOLD/CONTROL
- BACK LIT CONTROL KEYS
- LONGER BATTERY LIFE



Carlson Surveyor+

Carlson Surveyor

SOKKIA SRX



Save your capital and rent our equipment today, ask us about our Rental Plans!

Robots & GPS for UNDER $500 per month on Lease-to-Own

TURNING POINT SYSTEMS GROUP

MILWAUKEE, WISCONSIN **INDIANAPOLIS, INDIANA**

INDIANA SALES REPRESENTATIVE: TIM KERANS
CELL: 414-712-3261 EMAIL: TKERANS@TURNINGPOINTSYSTEMSGROUP.COM

MAIN OFFICE: 6480 N. INDUSTRIAL ROAD, MILWAUKEE, WI 53223, PH: 414-353-8774, FX: 414-353-4887
WWW.TURNINGPOINTSYSTEMSGROUP.COM
24/7 EMERGENCY SERVICE & SUPPORT: 414-324-5850

Turning Point Systems Group (TPSGroup) provides consultative sales, rentals and training of 3D measuring products. Our staff offers extensive experience in GPS, TPS, and HDS technologies. Turning Point is an Authorized Distributor for Leica Geosystems HDS, Sokkia Corporation, and Carlson Software serving the Wisconsin, Illinois, Indiana and the Great Lakes Region. Turning Point is veteran-owned.

MUNSTER HIGH SCHOOL SENIOR INDIANA'S TRIG STAR

by Anthony M. Gregory, PLS - Indinaa's Trig-Star Coordinator

Indiana's 2009 Trig-Star winner is Matthew Pukoszek of Munster High School in Munster, Indiana. Matthew achieved the best score in the state by scoring 95 points out of a possible 100 points in 34 minutes 01 second. Matthew's math teacher was Ms. Valerie Pflum. The test was sponsored by Al Fabian, PLS of Torrenga Surveying, LLC, Munster, Indiana (Northwest Chapter). As the state winner, Matthew took the National Trig-Star Test in June. The national tests are to be graded by the NSPS Trig-Star Committee in July.

The second place winner in Indiana was Casey Smith of Portage High School in Portage, Indiana. Casey scored 95 points out of a possible 100 points in 40 minutes 39 seconds. Casey's math teacher is Sandra Back. The test was sponsored by David Croft, PLS of Bonar Group in Valparaiso, Indiana (Northwest Chapter).

The third place winner in Indiana was Patrick McIntyre of Munster High School in Munster, Indiana. Patrick scored 95 points out of a possible 100 points in 41 minutes 42 seconds. Patrick's math teacher was also Ms. Valerie Pflum. Again, Al Fabian (Northwest Chapter) was the sponsor for the Munster High School test.

ISPLS awarded a $1,000 savings bond, $500 savings bond, and $250 savings bond to the first, second, and third place winners, respectively. Additionally, the respective winners' teachers received $500, $250, and $125 cash awards.

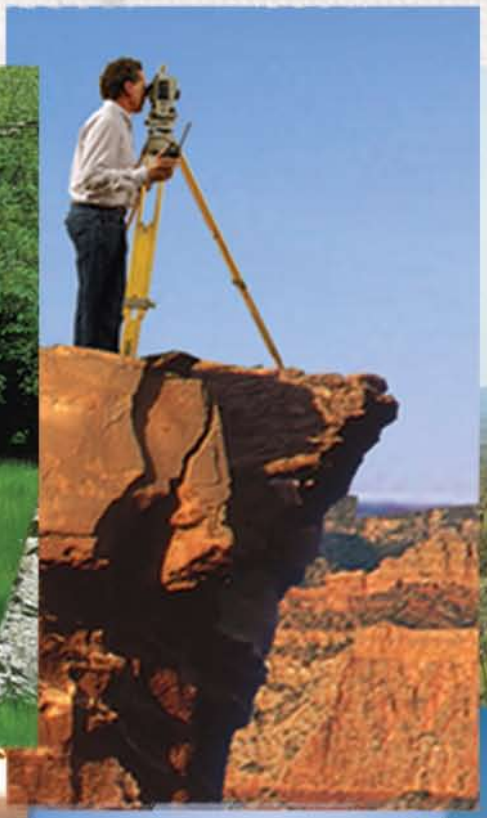
The overall state participation in 2008-2009 included 24 schools – 5 from the Wabash Valley Chapter, 12 from the Northwest Chapter, 6 from the Southwest Chapter, and 1 from the St. Joseph Valley Chapter (sponsored by the Northwest Chapter). A total of 590 students took the exam. Individual school winners received awards from ISPLS chapters ranging from a $100 savings bond up to a $500 cash award.

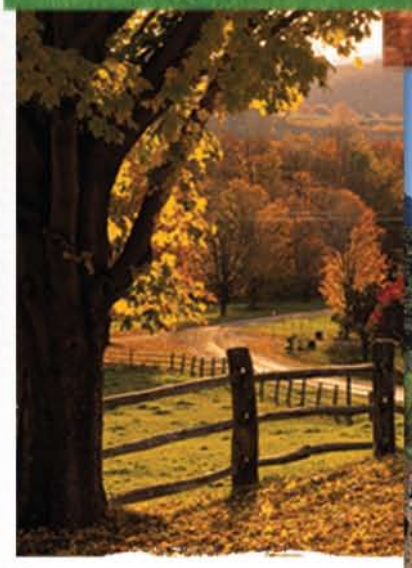
Several students who participated in the exam requested additional information regarding careers in surveying and mapping. Also, several students who participated requested information on the annual $5000 Trig Star Scholarship, which is awarded by NSPS. Mailings were sent to all students requesting information.

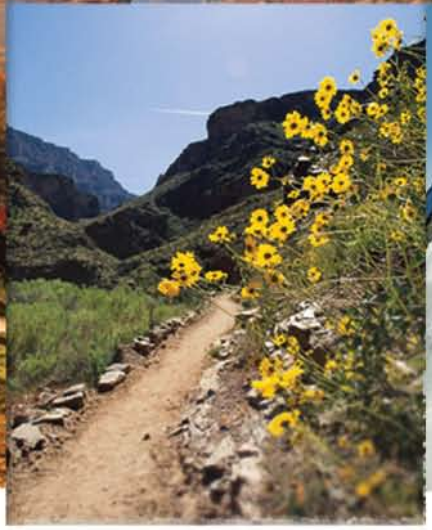
The Trig-Star program is an excellent tool to expose high school students to careers in land surveying. In 2009, a total of 38 states and Puerto Rico participated in the program. This increased from a total of 34 states in 2008. The NSPS Trig-Star Committee is continually looking for ways to publicize the effectiveness of the programs success and to increase the scope of the program.

The goal in Indiana is to increase participation so that every ISPLS chapter sponsors at least one school during the 2009-2010 test year. ISPLS purchases a site license which allows for an unlimited number of schools to participate. Therefore, there are no direct costs to local sponsors. Surveyors interested in sponsoring the test at a local high school should contact Indiana's Trig-Star Coordinator, Tony Gregory.

Left to Right: Al Fabian (local sponsor), Patrick McIntyre (3rd Place Winner), Matthew Pukoszek (1st Place Winner), Valerie Pflum (math teacher), and Carol Florence (guidance Counselor).







EXPLORE NEW BOUNDARIES!

Monuments, Caps and Accessories

800-445-5320 · surv-kap.com

The Landmark Name

SURV-KAP®

in Survey Products

Scouting for Recruits

By Ryan C. Swingley, PLS

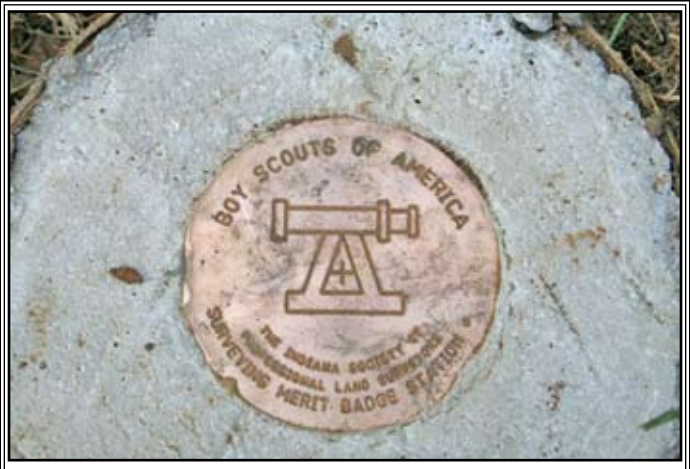
On May 16, the Central Indiana Chapter (CIC) of the Indiana Society of Professional Land Surveyors hosted its second Boy Scout Surveying Merit Badge Day at Camp Belzer in Indianapolis. Ten Scouts arrived at 9 a.m., eager to learn about surveying.

The morning started with a video that gave a short introduction to surveying presenting career paths and opportunities the profession offers. Following was a presentation on deed research given by Brady Kuhn, PLS, and David York, PLS, from Weihe Engineers, Inc.

The Scouts were then separated into two groups. One group went with Mark Schepers, PLS, from USI Consultants, Inc., to discuss the hazards of working outdoors and the safety measures necessary in order to avoid injury while working on a field crew. The other group worked with Kuhn and York on laptop computers to perform the necessary research through the Marion County Recorder's office "Records Remotely Plus" on-line system. Scouts either researched their family's property or one assigned by the counselor if the scout did not live within Marion County.

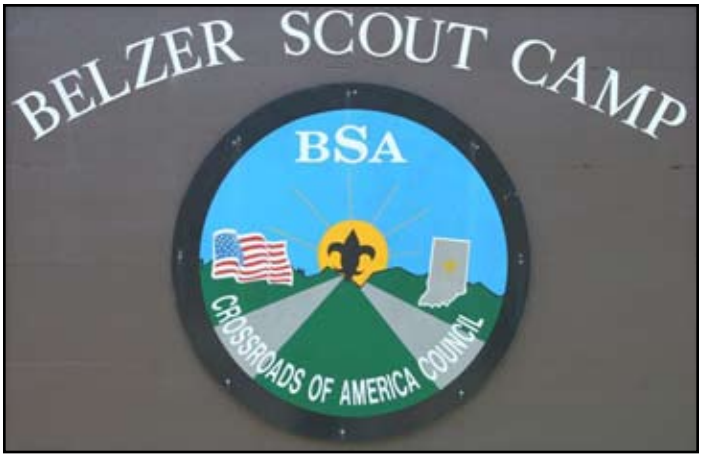
At this point it became obvious that the new students to surveying were in need of short break. After negotiating with the Scouts to cease scaling the activities building, we were ready to discuss surveying in greater detail. I led this effort with a PowerPoint presentation that included a brief history, different aspects, as well as equipment and the diverse career paths of surveying. Jason Coyle of Stoeppelwerth & Associates then followed with a discussion of the importance of surveying and training under a licensed surveyor.

This brought us to lunch. CIC was nice enough to foot the bill for lunch, which was also greatly discounted by the local Papa John's. The pizza was personally delivered by Don West, PLS, of USI Consultants, Inc. I sometimes forget how much food young boys can put away.



Thanks goes to the volunteers who participated in the Boy Scout Surveying Merit Badge last Saturday at Camp Belzer. Volunteers were Ryan Swingley, Dave York, Brady Kuhn, Jason Coyle, Mark Schepers, Don West, Seiler Instument.

All ten of the scouts completed the requirements and earned their surveying merit badge. This was one scouts first merit badge. Another didn't need the badge (because he's an eagle scout) but wanted to get it because his grandfather was a surveyor in Hawaii.



Now it was time to head down to the activities field at Belzer. CIC set up a permanent traverse course in 2008 at this facility. The Scouts were given maps of the area and wire flags to find and mark the existing brass disks set in concrete. References were measured for each point by compass and tape and supported with RTK GPS measurements. After all five monuments were recovered, Coyle taught the Scouts about the theory and procedures of traversing, and I taught them how differential leveling works and how to read a level rod.

We then formed two groups, with traversing led by Coyle and leveling led by Schepers. Each Scout had the opportunity to turn a few angles, as well as gain some experience in properly holding the level rod, in addition to reading it. The traversing and leveling data was recorded by the Scouts in field books.

Once all the data was collected (and after a short rain delay), the group headed back to the activities building to complete the rest of the requirements. Computations of closure for the traverse and level circuit were calculated and met the badge requirements. Coyle then showed the Scouts how to make a scaled drawing and how to write a land description of the traverse. Merit badge counselors (Schepers and Swingley) determined that all of the requirements had been met. Each Scout received his "Blue Card" which entitled him to receive the Surveying Merit Badge.

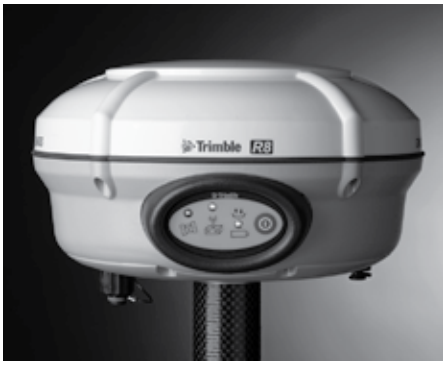
This program was started by CIC in 2008 and to date has been presented to 20 Boy Scouts. CIC decided that it would be best to hold the merit badge workshops at Camp Belzer, since it is a neutral location where the Scouts and their parents can share in the experience. We set up a permanent traverse course that consists of five custom brass markers set in concrete, each with the merit badge insignia stamped in it.

The monuments are strategically placed in areas where there is considerable foot traffic at the camp. This was done to encourage word of mouth marketing among the Scouts and staff. This program is advertised via the Crossroads of America Council web site, where Scouts can sign up on their own. Consequently, we don't have to wait for an entire troop to be interested in order to

...continued Page 9

TRIMBLE R8 GNSS +
TRIMBLE ACCESS

You don't get ahead by thinking about features.



You think about efficiency.

As a stand-alone instrument the new Trimble® R8 GNSS saves time and money. Its unmatched ability to acquire signals and transmit data means your teams are hard at work even near canopy or in urban environments where traditional receivers can't get the job done.

Partner it with Trimble Access™ software, and you'll see it's also a system that enables your teams to send, receive, and confirm data immediately. So your office has everything it needs in one place, the first time. Every time.

Sharing real-time information leads directly to your bottom line. That's why this efficient system is the latest step in our commitment to do more for your business than ever before.

See this powerful system at work:
www.trimble.com/Access

Trimble®

FOR MORE INFORMATION CALL YOUR TRIMBLE DEALER

Seiler Instruments
Indianapolis, IN
317-849-7090

Boy Scouts
...continued from Page 7

schedule a presentation; rather we get a few Scouts from several troops to participate on the date selected by our chapter.

Because of our efforts in this program we were asked to participate in the Webelos Engineering Activity Badge and have discussed surveying with approximately 100 Webelos Scouts during the past two years.

Merit Badge Requirements

1. Show that you know first aid for the types of injuries that could occur while surveying, including cuts, scratches, snakebite, insect stings, tick bites, heat and cold reactions, and dehydration. Explain to your counselor why a surveyor should be able to identify the poisonous plants and poisonous animals that are found in your area.
2. Find and mark the corners of a five-sided lot that has been laid out by your counselor to fit the land available. Set an instrument over each of the corners and record the angle turned between each line and the distance measured between each corner, as directed by your counselor. With the assistance of the counselor, compute the error of closure from the recorded notes. The error of closure must not be more than 5 feet. From the corners, take compass readings or turn angles to trees, shrubs, and rocks and measure to them. All measurements should be made using instruments, methods, and accuracies consistent with current technology.
3. From the field notes gathered for requirement 2, draw to scale a map of your survey. Submit a neatly drawn copy.
4. Write a metes and bounds description for the five-sided lot in requirement 2.
5. Use one of the corner markers from requirement 2 as a benchmark with an assumed elevation of 100 feet. Using a level and rod, determine the elevation of the other four corner markers.
6. Get a copy of the deed to your property, or a piece of property assigned by your counselor, from the local courthouse or title agency.
7. Tell what GPS is; discuss with your counselor the importance of GPS and how it is changing the field of surveying.
8. Discuss the importance of surveying with a licensed surveyor. Also discuss the various types of surveying and mapping, and applications of surveying technology to other fields. Discuss career opportunities in surveying and related fields. Discuss qualifications and preparation for such a career.

Front Cover: Boy Scouts and Central Indiana Chapter members who participated in the Surveying Merit Badge workshop at Camp Belzer are (from left): Adam Czyzewski, Troop 399; Jason Coyle; Benjamin Gormley, Troop 202; Matthew Prior, Troop 446; Mark Schepers; Jimmy Godsil, Troop 399; Justin Strommen, Troop 566; Joe Hanley, Troop 107; Ryan Swingley; David Tilly, Troop 400; Austin Bravard, Troop 244; Harrison Merrill, Troop 196; and Nathaniel Doyle, Troop 399.

Northwest Chapter of ISPLS Golf Outing Results

The Northwest Chapter of the Indiana Society of Professional Land Surveyors awarded $1000 to Jonathan Siminski of Hebron (pictured) and $500 to Daniel Krauss of Crown Point at the Chapter's annual golf outing on July 24 held at The Course at Aberdeen.

The Northwest Chapter held its annual golf outing on July 24th, 2009, at the Course at Aberdeen in Valparaiso, Indiana. The golf outing is the primary scholarship fundraiser for the Chapter and was attended by 41 golfers this year. The event raised approximately $1300 from golfers, hole sponsorships and a raffle (for Chicago White Sox tickets generously donated by V3 Companies). The Chapter used this event not only to raise scholarship money, but also formally to recognize its two Ordell L. Gertsmeier Scholarship Grant recipients this year. Jonathan Siminski (pictured) of Hebron, Indiana, who attends Purdue University Calumet was awarded $1000 and Daniel Krauss of Crown Point, Indiana, who attends Purdue University, West Lafayette was awarded $500. The number of available awards given and amounts each year are based on the Chapter's fundraising efforts from the prior year. The awards are given to students enrolled in undergraduate surveying related college level courses, residing in the Chapter's seven county area, and who are pursuing a college education as a means to advance their careers in the field of land surveying.

NSPS Enters Its Second Decade of Involvement With the Boy Scouts Surveying Merit Badge

National Society of Professional Surveyors Past President Tommy Brooks (Alabama) and current NSPS Area 4 Director Wayne Hebert (Louisiana) are in the process of putting together their team and strategy for the NSPS-sponsored Surveying Booth on the Merit Badge Midway during the 2010 Boy Scout National Jamboree to be held July 26-Aug. 4 at Fort A.P. Hill, Va.

Typically held every four years, the 2010 Jamboree was held a year later than normal to coincide with the 100th anniversary of the Boy Scouts of America.

Surveying was introduced in 1911, among the original 57 Boy Scout merit badges, and remains one of only 11 of the original group offered continually since then.

NSPS's active involvement in the Surveying Merit Badge program came about advertently. In the summer of 1989, then NSPS Governor Curt Sumner (Virginia) was recruited by then NSPS Member Services Director Anne Glasgow to assist Army retiree Murray Manley of Fort Collins, Colo., in transporting surveying equipment from Dulles Airport to Fort A.P. Hill, Va., to be used at the Surveying Merit Badge Booth during the Jamboree.

While being interviewed at the Jamboree, Manley's comment that the Surveying Merit Badge wasn't really being handled properly inspired Sumner to volunteer to lead an effort to revise the Surveying Merit Badge Handbook, and to make a commitment to encourage NSPS to take the lead in participation at future Jamborees.

Along with Richard Alvarez (who provided much of the content) of Menlo Park, Calif, Sumner began the process to gain approval for revisions to the handbook that last had been amended in 1984. In 1992, the revised handbook was published. It was dedicated to the memory of Manley, who passed away before its completion.

Beginning with the 1993 Jamboree (International Jamborees are held every four years), NSPS has sponsored the Surveying Merit Badge Booth, and recruited surveyors from across the country to serve as instructors.

Frequently since then, Tommy Brooks has served as the leader of the volunteers at the Jamborees and has worked with the BSA to make arrangements for the booth. He has also led a group that continues to review the handbook's contents. Their work resulted in the edition of Jan. 1, 2005.

Brooks also created a PowerPoint presentation called "How to Teach the Surveying Merit Badge," which is posted on the NSPS web site at www.nspsmo.org.

Brooks and Hebert will need about 22 surveyors to volunteer for the 2010 Jamboree to accommodate the anticipated number of Scouts who will work to achieve the Merit Badge. During prior Jamborees, as many as 200 Scouts have attempted to complete the requirements. Their respective schedules, combined with a limited number of NSPS volunteers, have resulted in some of the Scouts not being able to complete the requirements.

NSPS views its participation with the Surveying Merit Badge, and being present at Jamborees, as fertile recruiting ground for future surveyors. Therefore, it is very important that there are enough instructors present at the Jamboree to accommodate the Scouts who express interest. More information about being a Jamboree staff member is at www.bsajamboree.org/staff.html.

As one might imagine, significant funds are required to assure the desired success of the NSPS efforts at Jamborees, and in working with Scouts on the Surveying Merit Badge.

Although NSPS sets aside funds for the Jamboree, Brooks says that corporate sponsors are also needed to help fund the effort, and to provide instruments (such as GPS units, standard surveying instruments, and computers) on loan. NSPS estimate that up to $25,000 will be needed, plus equipment on loan.

Surveyors also are needed to volunteer nationwide, at the local level. Many surveyors (often dads of Scouts) already become involved with their local Troops. A much larger impact result if a database of volunteers can be kept at NSPS headquarters. A unified effort between NSPS and its state affiliate associations to recruit volunteers is needed.

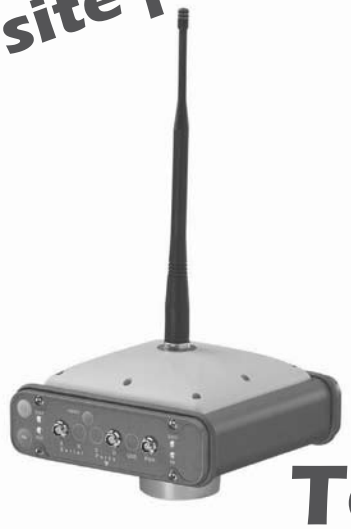
Anyone interested in assisting NSPS in its efforts, either for participation at the 2010 Boy Scouts Jamboree, or on the local level, should contact either Tommy Brooks (Thomas.Brooks@mustangeng.com) or Wayne Hebert (WayneHebert@chevron.com). They can explain what is required to qualify as an instructor.

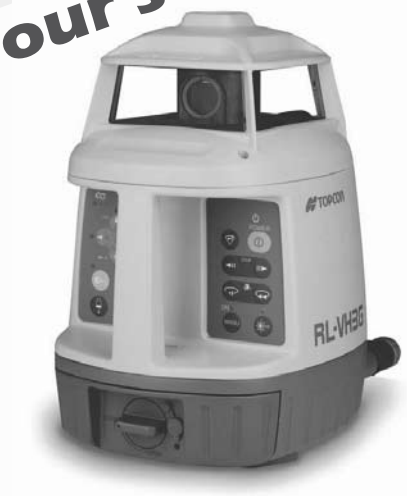
There is a plan to post a "needs" list on the NSPS web site for volunteers and donations (both money and equipment).

You may also contact NSPS Executive Director Curt Sumner at curtis.sumner@acsm.net or at (240) 632-9716, ext. 106.

Positioning Solutions Company

Your source for site productivity tools





Total Stations
Lasers
GPS
Machine Control
Supplies

Sales
Service
Rental
Training

AUTHORIZED TOPCON DEALER

Positioning Solutions Co. | Productivity Tools for Survey and Construction Professionals
7522 E. 39th Street, Indianapolis, IN 46226
Phone: 888-313-6111 | Fax: 317-542-7784| www.1psc.com

How Can My Surveying Business *Survive* a Declining Economy?
by Alicia Glassford

Declining profit margins are on the minds of most business owners, including surveyors. Surveying publications are full of articles and advertisements on competitive advantages and improved performance available through advancements in surveying equipment and software. As the economy continues to decline, a surveyor may feel even greater pressure to pursue these technological solutions for improving their profit margin. But is there another solution? Could the solution be as simple as attention to customer service?

The bottom line for a successful survey is that pins are placed in the right location, proper documentation is filed, and the client is satisfied, all at a reasonable cost. So, when faced with increasing operating costs and a shrinking pool of clients, the surveyor needs to ask, which investment will get me to the bottom line at a reasonable cost-improved technology or improved customer service? To frame the comparison, think of today's high-tech bow hunter, outfitted with sophisticated compound bows made from the latest materials. Next, think of early American hunters who used simple bows and arrows crafted from native materials. Both kinds of hunters have been successful at bagging game, but they use different approaches to achieve the bottom line.

Surveyors can borrow from the example of primitive hunters in breaking down a successful approach to customer service. Primitive hunters were successful through their local knowledge, understanding of animal behavior, and survival skills, all of which were intensified by the threat of pending hunger.

Local Knowledge

Surveyors have always understood the edge available to them when they return to an area where they previously surveyed. While past work may have unearthed a can of worms, at least it's a familiar can of worms. Further advantages may be available by cultivating opportunities for additional jobs in the same area you are already working. What is your current approach to right-of-entry notification to neighboring landowners? Does your crew hang door knob notices when landowners are at work on a Monday morning? What if you obtained telephone numbers for neighboring landowners and called them on a Sunday evening when they are likely to be home? This personal approach not only completes the necessary notice for crossing property, but also cultivates relationships that might result in future work in this same neighborhood. If only a few of these calls result in future business, you have made a positive contribution to your profit margin.

Animal Behavior

Primitive hunters needed to understand animal behavior to be successful, which translates to the surveyor's need to understand human behavior. A major component of human behavior is based on communication. Informed clients are usually satisfied clients, and satisfied clients communicate with family, friends, and neighbors about their satisfaction with your work. Conversely, uninformed clients usually results in negative communication about your work. You can influence this communication chain in your favor by recognizing some key behaviors of your client.

Recognize if your client is feeling disoriented by the new experiences that arise while a survey of their land is completed. During the survey, the client may need to interact with planning office employees, title examiners, attorneys, realtors, and angry neighbors. To add to it, different professions use different vocabularies, which can be confusing. If you recognize this potential for your client's confusion, you can bridge the gap for your client and tie together the pieces.

Regular communication with your client not only allows you to convey information to your client, it gives you an opportunity to gauge their comfort with the amount of information they are receiving. By influencing human behavior and communication chains in your favor, the ultimate result could be potential clients hearing good things about your work and approaching you for your services.

Survival Skills

Surveyors may want to refine their customer service survival skills with respect to components such as workforce, equipment, flexibility, and instinct.

A workforce that extends your sense of customer service is important. You will want to discuss with employees any changes you decide to make in your customer service approach, and you will want to listen to their ideas on how to make it happen.

An investment in customer service might mean that investments in technology upgrades to equipment are postponed. A downside to aging equipment is finding available parts and qualified technicians who are familiar with servicing older models. However, the internet and communication with other surveyors can help overcome these obstacles.

Business survival skills should include flexibility. Your clients and the team of professionals working on a project might be subject to unexpected circumstances at any time due to the declining economy. Difficulty in securing financing might cause a project to quickly terminate or change. Discuss options with your client at all phases of the project, and be prepared to arrange for interim payments so that you stay current with reimbursement for the work you have completed. If the client can't come up with funding to pursue a subdivision, be prepared to discuss the cost of a partition that might nor require the bonding and development requirements of a sub-division. Also, you might be prepared to discuss the cost of recording a record of survey for the parent parcel so that the subdivision can continue later with fewer steps to be completed.

Respecting your gut instincts might be your key to survival in a period of economic difficulty. Be ready to decline work from a prospective client if your instincts tell you that the situation is wrong for you. Customer service also means being selective on whom you engage as a customer. Surveyors encounter risky situations during good economic times, so it stands to reason that those

...continued Page 15

hands on customer service

local presence

strength & leverage

national strength

Brown & Brown INSURANCE®

teamwork

collective wisdom

comprehensive solutions

As the Indiana Society of Professional Land Surveyors endorsed insurance partner we provide comprehensive insurance solutions for members and their firms.

As we cover the state, we now have the following locations to better serve you.

- Carmel
- Elkhart
- Newburgh
- Brownsburg
- Noblesville
- Kokomo

INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS, INC. EST. 1954

877-647-2242 • www.BrownandBrownIndiana.com • 317-574-5000

Survive a Declining Economy
...continued from Page 13

same risky situations arise during economic downturns. In some situations, turning away risky work is more economically viable than accepting the work and its associated risks.

Pending Hunger

Today's economy is honing the surveyor's skills much like the primitive hunter who would not have survived without successful hunts. However, the declining economy is also affecting potential clients and their interest in spending money. If a client is not interested in investing in the cost of a full survey, perhaps they would consider a smaller investment to achieve a portion of their goals. For example, pursuing boundary line agreements with cooperative neighbors to at least fix the location of a portion of the property boundary might be a viable project. While the client would not have a full survey of their property, the partial survey based on boundary line agreements could be completed at a lower cost. Since partitioned parcels larger than 10 acres in size do not require a survey of the parcels, a partition of parcels larger than 10 acres in size might meet the client's budget. If your client understands the statutes, they may opt to partition property to a different configuration. As previously described, a subdivision could be reconfigured as a partition or as a record of survey for the parent property. You might better serve your client by providing suggestions to scale down the size of the project and the cash outlay. In your situation, a small project might be better than no project at all.

A thorough review of your customer service approach could improve your profit margin and help your business survive a declining econonmy.

So, is it time to pull the dusty transit from your shelf and ignore the advancing world of technology? Of course not, but a thorough review of your customer service approach could improve your profit margin and help your business survive a declining economy.

Minutes
...continued from Page 3

Internal Affairs - Finance and Planning - A motion was made and passed to change our credit card to go through Elavon.

A motion was made and passed to adopt a cash payment discount policy to be implemented as necessary.

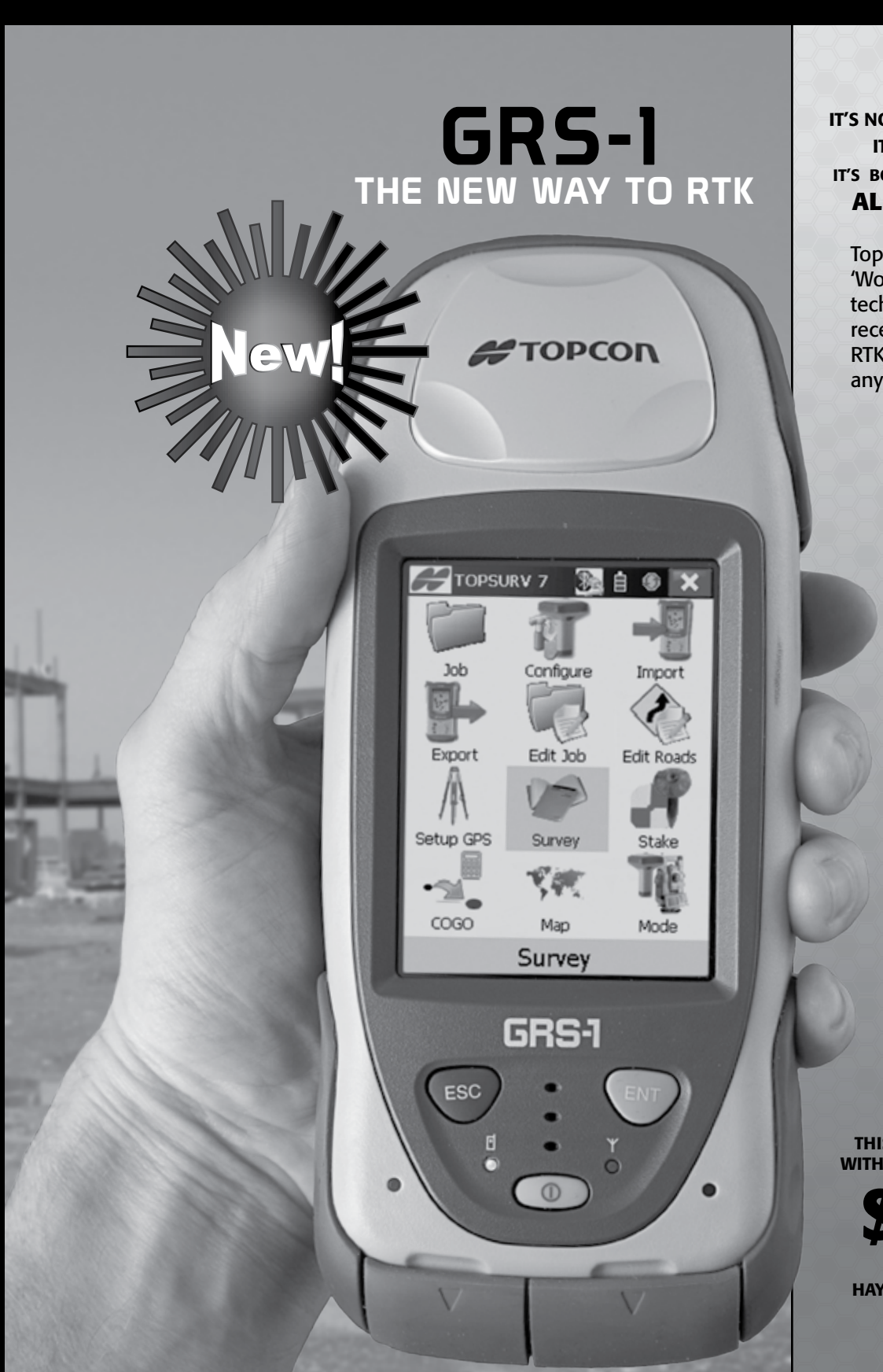
A motion was made and passed to approve the 2009/2010 ISPLS budget in the amount of $388,602.00.

New Business - Chapter Officers - Members of ISPLS, there was board discussion regarding mandatory membership in ISPLS for Chapter officers.

Next BOD meeting will be Saturday, June 13, 2009 at headquarters.

GRS-1

THE NEW WAY TO RTK



IT'S NOT JUST A FIELD CONTROLLER...
IT'S NOT JUST A GPS RECEIVER...
IT'S BOTH: THE MOST INNOVATIVE ALL-IN-ONE SURVEYING SOLUTION!

Topcon does it again with 'World's-First' industry-leading technology; the new GRS-1 receiver is an affordable network RTK rover kit that can do almost any surveying task.

- **Designed for network RTK**
- **Complete rover system weighs 5 lbs.**
- **Integrated TopSURV software with full COGO routines**
- **Includes Microsoft Windows Mobile 6.1**
- **Integrated cellular modem**
- **Wifi & Bluetooth standard**
- **Built-in digital camera**
- **72 Channel GPS + GLONASS dual frequency receiver**
- **1 GB Memory**
- **806 MHz Processor**
- **Access to WAAS correction**
- **Digital compass**
- **1 cm accuracy**

THIS ALL-IN-ONE COMPACT RECEIVER WITH ANTENNA & ROVER ROD STARTS AT

$11,490!

HAYES 'WORRY-FREE' MONTHLY LEASE PAYMENTS AS LOW AS

$356.19

AT HAYES WE CALL IT THE EASY RECEIVER...

EASY TO LEARN
EASY TO USE
EASY TO PAY FOR

HAYES INSTRUMENT CO.

www.HAYESINSTRUMENT.com

800-251-1280

MEET A MEMBER

Interview with Roger Woodfill, P.L.S. as told to David B.H. Best, P.L.S.

Like most youth I had not considered my future vocation much until I was in seventh or eighth grade. That time in my life corresponded with the former Soviet Union's launch of "Sputnik" and the United States' efforts to put a man in space. There was a push for students to enter the fields of science and engineering. My father was a construction electrician, and I thought "engineering" was building things like highways, bridges, and dams — so I thought that I would try to be a "Civil Engineer".

Although I joined the high school science club, my activities in "small town" Indiana during those days were more varied — lettering in basketball, baseball, track, cross-country; President of my freshman and sophomore class; President of the High School Student Council my senior year; "Key Club" member; honor Thespian; 4-H Club; Cub-Scouts and MYF (Methodist Youth Fellowship) Treasurer to mention a few. My family moved from one small town (Vevay in Switzerland County) to another (Lawrenceburg in Dearborn County) in 1961 between my sophomore and junior years of high school. We built a new residence at that time, and I received my first significant construction work experience that summer — (two by fours were 1?" x 3?" in those days).

I had been born in 1945, the beginning of the post World War II "baby boom". When I graduated from high school in 1963, most universities had not yet geared up for the influx of students who were then able to afford college. The only University that recruited me was the University of Evansville to be a minister. I supposed I selected "Purdue University", and the Lafayette campus, because I had a brother (two years older than I) attending there. He was much more "science-oriented" than I — eventually receiving a PhD in Physics from Purdue. Anyway, I enrolled in freshman engineering and stayed in H-3 (now Wiley Hall) my freshman year. That first year was mostly attending class and studying although I did learn a few things about Purdue's history, about doing my own laundry, and about the finer points of playing Euchre. I made good or average grades that year; but looking back, the most insightful event that year happened in freshmen Speech #113 class. Students would prepare five or ten minute talks on a variety of subjects and present them in class. The other classmates, and the instructor, would then orally critique them; and we would try to do better the following week. The comment that I remember to this day is one from a very nice instructor, who after commenting favorably on my organization and fulfilling the assignment goals, gently added; "Good job Mr. Woodfill but the words are "just", not "jist" and "creek", not "crick".

Another "realization" that I experienced that first college year was in "drafting" class. Yes, that was a required course back in those days; and my instructor was a refugee from Fidel Castro's takeover of Cuba. The instructor and his family had been general contractors in Cuba before that country's communist takeover. After the "revolution", the government took his bulldozers and other equipment. He fled for his future into the old Michael Golden Laboratories Building at Purdue and was teaching drafting. (As an aside, but an example of how times have changed, I also have one credit hour from Purdue University from a "slide rule" class. Some of your older readers may remember those plastic-coated, bamboo things that physically added logarithms. It seemed that all engineers were required to carry them at Purdue in those days.)

The following summer I received my first experience "measuring land". Those were the days when tobacco production was controlled by acreage allotments; and I measured tobacco patches, calculated acreage, and filled out Agricultural Stabilization and Conservation reports. I was paid on a per patch of tobacco basis. USDA Reporters like me were issued steel-band tapes (calibrated in links) and a set of chaining pins in 1964. I learned that if you multiplied the average length of a tobacco patch by the average width using one of those "chains", and marked off one decimal place, the answer equals the area of that tobacco patch. I also had a job with the Indiana State Highway Commission (ISHC), now the Indiana Department of Transportation (IDOT), as an Engineer's Assistant. That position generally kept me in the ISHC jobsite construction trailer office forty hours a week. Occasionally I did get outside to do a little inspecting and collecting testing samples and/or weigh tickets. One of my inside duties was to calculate area and volumes for the work completed. Much of that was done by counting squares on the "as builts".

For housing my second year at Lafayette, seven of us moved into an "off-campus" residence; and I learned mostly how to buy groceries, cook, and play golf. I did take "Surveying 205" that year which was headed up by Professor Ken Curtis; but my class instructor was another Cuban refugee. Our survey fieldwork was conducted at the old Ross-Ade parking lot, and Bob Griese was Purdue's quarterback. I did not accomplish much scholastically that year; and although I was pretty good at judging distances, I have not played golf since 1966 — it takes too much time.

That second summer of college I again worked for the ISHC. We were upgrading three miles of U.S. Highway #50 from two lanes to four lanes. The project engineer was hesitant to work very much so I did most of the "construction layout". Using a transit and steel tape, my novice crew started laying out the centerline, and we progressed through dirt moving, structures layout, and some paving before it was time for me to go back to school. Though I pretty much taught myself that summer, it was good experience. I dropped out of college later that fall. The construction season was over; but ISHC hired me back to "head-up" the surveying of a route survey for truck lanes, also on U.S. #50, near Versailles Indiana State Park. That route survey experience was also good for me. I did take the University of Cincinnati's night course in basic physics for engineers (similar to Purdue's Physics #161) that fall; and in the Spring I enrolled at IUPUI to work on a Civil Engineering Technology degree.

During my first semester in Indianapolis, I worked Tuesdays and Thursdays on a survey crew for Alan Weihe, from the Noblesville, Hamilton County area. We did mostly farm surveys, lot surveys, and what is now called residential mortgage inspections. Alan was good to me, and although the numbers are no longer relevant; I remember when he increased my part-time wage from $2.10/hour to $2.25/hour. Alan had attended the University of Illinois; and he had a textbook signed by one of his professors, William Rayner, the author of one of the texts that I had used in my CE 205 class. Weihe also offered me a job after I had received my Bachelor's degree a few years later — I found that encouraging.

...continued Page 19

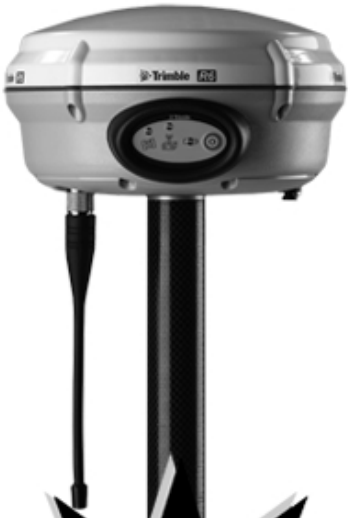
www.seilerinst.com

SEILER

Providing Integrated Solutions since 1945

Trimble GPS R6 Rover Special

GNSS Surveying is coming – *Are you ready?*



***Base Package includes:**

R6201-50	Trimble R6 rover kit (no sw or internal radio)
52426-80	Trimble GLONASS upgrade
TSC216	Trimble TSC216 data collector with Survey Controller
56044-00	Trimble TSC2 GPS accessory kit
43169-10	Trimble 2m carbon fiber pole

(Normally Retails for $25,395.00)

Options Add on - Internal radio or GSM module $900.00

Special Price!
$16,855.00

The Trimble® R6 GPS System is a multi-channel, multi-frequency GPS receiver, antenna, and data-link radio combined in one compact unit. An R-Track technology option provides GLONASS augmentation to the Trimble R6 GPS solution. Use the Trimble R6 for RTK or static surveying, or in a Trimble VRS™ infrastructure network. The Trimble R6 is ideal for multiple surveying applications, including topographic, cadastral, and stakeout.

Get Connected to VRS Technology today with this great offer!

This special offer will expire soon Please contact us today for details!

Trimble
Authorized Dealer

Steve Myers
317-696-9518

Craig Williams
317-696-6730

Contact Us:
Indianapolis Office
5454 Harrison Park Lane
Indianapolis, IN 46216
Toll Free: 800-533-2280
Local: 317-545-7090
E-mail: solutions@seilerinst.com
Web Site: http://solutions.seilerinst.com

Meet A Member
...continued from Page 17

While attending IUPUI (it was on 38th Street across from the State Fairgrounds in those days) I also met Vic Wenning (who taught a night class in hydrology) and Neil Franklin (one of the three founders of Mid-States Engineering), who I will mention later in this questionnaire response. I received an associate degree in CE Tech from IUPUI & the Boliermakers won the Big Ten Football Conference in 1967 — so Bob Griese, and I, both went to the Rose Bowl in Pasadena that year.

The following summer I got a job with Mid-States Engineering (then located at Ohio Street and Market Street in Indianapolis) as a "survey party chief". I have lost track of what they call Mid-States now, but back then it was run by the three founders: Neil Franklin, Sol Miller, and Rex Early — all of whom were fair to me. During a couple of summers while I was still in school they let me "crew chief" doing subdivision and apartment layout, topography, and occasionally boundary work. About the time I had earned my Bachelor of Science degree, Rex had secured some interceptor sanitary sewer work for the company. Mid-States created a sanitary sewer division, and they put me in charge of that department doing "route surveys". Neil Franklin actually did the engineering; but he taught me a lot about what information was important to gather, and we moved right along. Neil was also a past president of ISPLS (1967) and active in ACSM. He was influential in getting me involved in those two professional organizations.

However, to apply the label of "most influential" person in my decision to be a professional land surveyor, I will have to return to the academic setting. I did return to the Purdue Lafayette Campus after earning my associate degree from IUPUI in Civil Engineering Technology. Professor Carl Kemmer, my student counselor in Purdue's School of Civil Engineering, would not accept my credits from IUPUI, or the University of Cincinnati, toward an engineering degree. In Purdue's Administration building I found someone who appeared to care, Dean (Daniel ?) Grier. He offered to give me some vocational aptitude tests which indicated that I would be happier in the School of Technology working toward a BS in "Construction Management". At that time the School of Technology was housed in State Street Courts, and Professor Dorsey Moss had transferred from the Ft. Wayne campus to establish a "Construction Management" curriculum at the Lafayette campus. Dr. Moss and Professor John McEntyre (who had been at Kansas State and was temporarily assigned to the School of Technology while waiting to work on the make-up of the proposed Purdue Land Surveying Degree Program) gave me a hand and managed to get me enrolled in several career influencing classes. Most of my electives during my junior and senior years of college were graduate level CE courses — the most important was McEntyre's course on "Land Surveying". The School of Technology did start a Student Chapter of the General Contractors of Indiana my senior year at Lafayette, and I was the President. Mine was the first Bachelor of Science degree awarded at the Lafayette Campus for Construction Management (1969). I did interview with several construction companies upon graduation; but my first choice was to accept employment with Mid-States in Indianapolis as a surveyor, and I have basically been working in that profession ever since.

I had married before starting my last year of college. Prior to graduation I was drafted and reported to Indianapolis for my physical exam. That exam determined that I had been born with a hernia; and although I had the hernia sewed up by Dr. Loop at the Purdue Medical Center within a couple of weeks, I have never served in the military although I have always thought I should. The war in Vietnam had concluded, and I suppose the military had more personnel than they needed. After one year in Indianapolis my wife (Jean) and I decided that we would return to a small town setting to live and raise our family. We did return to southeastern Indiana, and we are proud of our four children:

Susan: born in 1971, graduated from Indiana University, has an M.A. from Indiana Weslyan University and teaches Music in southeastern Indiana.

Brian: born in 1975, graduated from Franklin College, has been a youth minister, certified financial advisor, and now teaches near Lancaster, Pennsylvania.

Molly: born 1979, graduated from Purdue School of Nursing, received an M.S.N. from the University of Kentucky this summer, lives in Lexington, KY.

Craig: born in 1982, graduated from Anderson University, recently resigned from Stanley Security Systems to coach soccer full time in Fishers, Indiana.

I have two grandsons, two granddaughters, and two more grandchildren on the way (gender unknown), as well as a t-shirt and a baseball cap certifying that I am the "World's Greatest Grampa".

But back to my professional career — Neil Franklin had taken me to an ISPLS annual conference back in 1979 when Robert Kelker chaired the organization. All the annual meetings were held in Lafayette in those days, and I still remember that Kelker humorously commenting that "Robert's Rules of Order" meant his rules — not some published in a book somewhere. That is the way it was back then; but everyone did have a chance to speak up. In the exhibit room there were displays of transits and steel tapes, machetes and field books, thermometers and tension springs, and other things we no longer see. I remember going with Mid-States to purchase their first "Telluometer" and their first HP-3800.

I have known all the ISPLS presidents to some degree since that time; and George Crowder, Nelson Prall and John Beals who served before then. I remember traveling to ISPLS's first "joint-meeting" held in Champaign, Illinois; and I remember the decision to hire the first "Executive Director" of ISPLS and move the society's headquarters from Professor Curtis' house in West Lafayette to Indianapolis. That was about the time I became active as an ISPLS Board of Directors member (1975). I remember the troubles ISPLS had when our first Executive Director resigned and ISPLS was sharing staff and office space with the Indiana Professional Engineers. First we were on Meridian Street, then on the north side of 38th Street; and then on the south side of 38th. ISPLS struggled — once saved by Vince Schneider giving us office space in his company's basement; and I remember sleeping one night on the converted gas station floor that ISPLS called "headquarters" for a year at the corner of Post Road and 21st Street.

...continued Page 20

...continued from Page 20

We had some successes too. I worked on the education committees largely. Although it was a small part, ISPLS encouraged the establishment of educational programs at both Purdue and Vincennes Universities. We established scholarships at both schools and the interview process — all of which have been modified and increased from year to year. We have taken positions on several bills during legislative sessions, and we helped establish a surveying library, and ISPLS has published technical papers for surveying workshops. Until last year ISPLS published a quarterly newsletter and an annual roster. The "Hoosier Surveyor" kept membership informed and inspired members to make their individual contributions to our profession. ISPLS has printed brochures and newsletters, and ISPLS has held useful, informational workshops for the professional surveyor long before "continuing education" was mandatory. ISPLS has made a video and purchased others for distribution at high school job fairs. ISPLS has created some financial reserves for slow economic times, and ISLPS has developed an awards program to thank those who have contributed.

In the 1950's when ISPLS was being formed three ISPLS members served as the organizations chairman for two years each. They were Brownsten, Buerkle, and Crowder. Since our organization has grown and incorporated, only two members: John Schneider and I have been elected to serve more than one term. I was President in 1978 and again in 1990. I was on the ISPLS board of directors for eleven years between 1975 and 1991; and was Indiana's representative to ACSM for a couple of years. On the national level I helped write the new by-laws when the old Land Surveys Division of ACSM re-organized into the National Society for Professional Surveyors (NSPS). I was the Area 5 Director of NSPS representing Ohio, Michigan, Illinois, Wisconsin, and Minnesota as well as Indiana in that organization; and eventually I rose to the office of Vice-President of NSPS. Since 1993 I have not taken a leadership role in ISPLS because I was elected chairman of the Indiana Surveyors Political Action Committee at that time, and I feel that it would be a conflict of interest to do both. In lieu of ISPLS activity I have become involved with Surveyors Historical Society (SHS) a national, not-for-profit organization. That society was incorporated under California law in 1977; and its recently adopted mission statement reads:

"The Surveyors Historical Society documents the evolution of surveying and mapping through the collection and preservation of artifacts, records, and accumulated knowledge.

The society seeks to use its unique and comprehensive repository of surveying material and the knowledge of its members to develop educational opportunities and to support others engaged in similar efforts."

I was asked to run for a board of director's position in SHS several years ago. SHS had decided to go "national" and had moved its headquarters from California to Michigan. I was defeated the first election, but the nominating committee put my name on the ballot a second . I was elected about the same time the Michigan underwriters perceived a threat that SHS was trying to take over their state's surveying museum. They asked SHS to leave. I resigned from the SHS board-of-directors after attending just one meeting. I prepared an offer to serve as the SHS Executive Director in order to keep its headquarters in the mid-west. Since that time the few members that wanted to start a national surveyor's museum have gone their separate ways. The Surveyors Historical Society has clarified its goals as stated above.

Although SHS does have a large collection of surveying equipment and a library of old surveying books: SHS is most visible through our annual "Surveyors' Rendezvous" where we generally search for a historic surveying point and make the public aware of the activities of surveyors and how those acts have effected history. Virtually anyone with $75.00 can be a member of the Surveyors Historical Society for a year. We have lawyers, re-enacters, educators, people who are only interested in Lewis and Clark, and other non-surveyor members. Nearly all the state professional surveyor's societies are corresponding members. Our website address is: www.surveyorshistoricalsociety.com; and we sell "surveyor oriented" postcards, boardroom artwork, and books. SHS also publishes a newsletter "Insights" twice a year and a sixteen-page "Backsights" twice a year.

I am semi-retired currently; but I try to do one or two minor boundary surveys each week. I have always specialized in "land" or "boundary" surveying. I do the research, rodman duties, and drafting, and I contract with one individual to run the instrument and make calculations, and with a second person to do my secretarial work.

I received my registration to practice "land surveying" in Indiana on February 15, 1973. I only had to take the Indiana Law four-hour portion because I was registered in Ohio February 18, 1972 as a "Surveyor". I was allowed to take the NCEE national licensing exam in Ohio a year earlier because that state counted my "work experiences" during the semesters that I laid out of college. However, Indiana would not credit that experience. In 1977 and 1978 I represented ISPLS preparing one of its few annual conventions outside the state of Indiana. "Tri-Statein '78" was held jointly the "Professional Land Surveyors of Ohio" (PLSP) and the "Kentucky Associataion of Professional Surveyors" (KAPS). For the convention hotel we selected the Drawbridge Inn in northern Kentucky across from Cincinnati, Ohio. I sat for my Kentucky "Land Surveyors" registration and became registered in that state, May 2, 1977. At the aforesaid tri-state convention, I was also made an honorary "Kentucky Colonel" by their governor. Those are the only three states where I have held professional registration; and you can see parts of all three of those states from my back porch in Lawrenceburg.

With regard to your inquiry about hobbies and outside activities - I am president of our local church's "business board", but most of my extra daylight hours are spent on a riding lawn mower (not unlike Forest Gump). I do have a small coin collection that I started in 1950's; but nothing of value. I also collect "surveying" odds and ends like land patents, old instruments, artwork depicting surveyors, drafting sets, old text books, etc. Just last Sunday I spent $2.00 for a campaign pin at the local flea market promoting "Williams for County Surveyor". I don't know who he was; what county or state he was from; or when he ran. I do have a land patent signed by both Thomas Jefferson as President and James Madison as Secretary-of-State for 320 acres located not far from my house.l It was signed during Jefferson's last year as president. Indiana was still a territory. How cool is that to have a document signed by the author of "The Declaration of Independence" and countersigned by author of the "US Constitution"?

Lone Worker Safety

By Ronald E. Koons, RoSaKo Safety

Many of the trade publications and equipment manufacturers are discussing the evolving profession of surveying and how with new technology there may no longer be a need for a "crew". Many believe that much of the traditional surveying work can now be accomplished by a single worker. In fact, each year at the ISPLS Convention I speak with someone who is working on a regular basis by themselves. Let's look at some of the issues with working alone.

First of all, remember that just because you can do something doesn't mean that your have to or even that it is a good idea. Since labor is a major cost of any surveying firm I realize that anytime you can cut that labor cost by a significant amount it does look attractive. However, you need to look at all of the costs as well as potential safety issues. To be fair I should probably tell you that I have great concerns about lone surveyors working in the field. I am on the road a lot by myself and those concerns also fall on me. Just like truck drivers are on the road alone so am I along with many service techs, salesmen etc. To reduce some of the potential hazards I have taken a few basic precautions. I do keep a fire extinguisher, first aid kit, and all types of emergency gear in my vehicle. This is for both winter and summer potential hazards. I keep my tank full and generally never let it get below one-half full. I have added the ONSTAR services to both of my vehicles. Besides getting directions when my GPS doesn't help and getting addresses of businesses and restaurants, the ONSTAR system gives me security that if I do begin to feel ill I am just the push of one button away from help. Of course, if I am involved in a wreck the system will also signal that an air bag has been deployed. If something happens and I haven't been heard from in a while it can also tell authorities where my last location was when the system was turned off by my vehicle. I didn't know the system could do that until I had a mechanical issue one time and even with the system off the advisor knew where the vehicle was located. I also always let my wife know when I am leaving one location and heading to another. If I can't reach her by phone I simply leave a voice mail. If you must work alone make certain you have a system put together so someone will always know where you are during the day.

To be fair I should probably tell you that I have great concerns about lone surveyors working in the field.

Probably one of the best things that can be done is to work smart. Don't go into situations that are suspicious or have known hazards unless you can work around those hazards. One item that comes to mind is working alone around traffic. While it may be workable in a low volume suburban roadway, working alone on an interstate highway with hundreds of cars an hour just doesn't make sense. Going off a roadway into rugged country by yourself leaves very little backup for safety. Many times cell signals won't work and even if someone knew about where you were there may be miles of country to cover if they were looking for you. During my seminars I always mention that wearing a safety vest whenever you are out of your vehicle is a good idea. If something did go wrong finding brightly colored apparel is a lot easier than finding camouflaged outer wear or other colors that blend into your background. Something as simple as a twisted ankle could keep you from getting back to the safety of your vehicle. Keeping constant track of the weather is important for both winter and summer work. Snow, ice, rain, tornadoes and other weather events can keep you from moving or trap you in an area where no one knows you may be located.

One of the areas I have investigated is electronic means for locating someone when the person may have a problem. It is similar to the ONSTAR system, but is more compact in size and can be on your belt. Firemen quite often have a man-down system that emits a loud signal if they don't move for a predesignated amount of time. Of course those only help if someone is very near. Some upper priced personal radios can be purchased with a locator system that can locate an individual if he calls about a problem or if he doesn't push a button within a certain amount of time. The signal goes out when that button hasn't been pushed. These work on standard radio frequencies. There are also emergency locator beacons that are very similar to what are installed on airplanes; these are smaller versions that can be carried by anyone. If you get into trouble, a button is pushed and a signal is sent out over the international beacon frequency. Satellites can pick up the signal and unless you are in an area where the signal is blocked emergency personnel can find you just about anyplace in the world. Some of these are quite expensive. If you go into remote areas they can certainly be very helpful. I spoke with a timber buyer a couple of years ago who routinely goes into very remote and rugged terrain to mark trees for harvesting. Cell phones are generally useless. He was considering the purchase one of the beacons. He also had looked into a satellite phone system but it was larger than what he wanted to carry.

As if you need more to carry, don't forget the basics when it comes to survival. Water and maybe some energy bars, trail mix, or other food items can sustain you for a while if you get trapped or injured in a remote location. One surveyor I spoke with says that he never goes into remote areas without his survival knife. So are there surveying duties where it may be safe to work alone? If you are doing construction staking on a jobsite with other workers you may not have help, but you certainly aren't alone. Anytime others are around we can certainly hope they would help us if needed.

This wasn't intended to be a tell all article about lone worker safety, but I hope we have hit a few ideas that are food for thought if you are working alone or are contemplating such a move. Have a safe day!

CALENDAR

August 5-7, 2009
Surveyors Review Course. Campus the Missouri University of Science and Technology (MS&T), Rolla, MO. Cosponsored by MS&T and the Missouri Society of Professional Surveyors. Topics: Exam Preparation, Legal Principles, USPLSS, Errors Analysis, Route Surveys, Instrumentation, GPS Surveys, State Plane Coordinates, Problems Session, Practice NCEES-like Exam. 2.2 CEU's, 22 PDU's. Instructors: Dr. Dick Elgin, Dr. Joe Paiva, Norman Brown, Mike Flowers. $795.00. Contact: Distance and Continuing Education; MS&T; Rolla, MO 65409; 573.341.4442. dce@mst.edu

August 15, 2009
ISPLS Board of Directors Meeting, ISPLS headquarters

September 19, 2009
ISPLS Board of Directors Meeting, ISPLS headquarters

September 23, 2009/September 28, 2009
ACSM Fall Conference, Holiday Inn, Gaithersburg, MD
This year's ACSM Fall Conference will take place at the Gaithersburg Holiday Inn http://www.higaithersburg.com/ which is across the parking lot from ACSM Headquarters.
There is a room block set up at the Holiday Inn Gaithersburg. The room block expires Tuesday, September 8, 2009. If you plan to attend the meeting, you're urged to book soon.

January 13-15, 2010
ISPLS 58th Annual Convention, Indianapolis Marriott East Hotel, Indianapolis, IN.

Interesting Fact

Question:
How many square feet are there in an acre?
Answer: 43,560

But here's something that you probably didn't kow:

Write down any 3 different numbers (none being zero) Reverse their order. Subtract the smaller from the larger. Take this remainder and revese their order. Add the numbers.
Multiply the sum times 40. The result will ALWAYS be 43,500 - the number of square feet in an acre!

Here's an example:
674-476= 198
198+891=1089
1089 x 40 = 43,560 !

Reprinted from the Nebraska Surveyor/Winter 2008/2009

SUSTAINING MEMBERS

BERNTSEN INTERNATIONAL, INC.
P. O. Box 8670
Madison, WI 53708
(800) 356-7388

HARRISON MARKER AND INSTRUMENT COMPANY
P.O. Box 66
Anoka, Minnesota 55303
(763) 421-1445

HAYES INSTRUMENT CO.
502 S. Cannon Blvd.
Shelbyville, Tennessee 37160
(800) 251-1280

POSITIONING SOLUTIONS CO.
7522 E. 39th Street
Indianapolis, Indiana 46226
(317) 542-7673

SEILER INSTRUMENT & MANUFACTURING COMPANY
9454 Harrison Park Lane
Indianapolis, Indiana 46216
(317) 545-7090

SURV-KAP
P. O. Box 27367
Tucson, AZ 85726
(800) 445-5320

TRIMBLE NAVIGATION LTD-SURVEY DIV
10355 Westmoor Drive, Suite 100
Westminister, CO 80021
(720) 887-6100

TURNING POINT SYSTEMS GROUP
6480 N. Industrial Road
Milwaukee, WI 53223
(414) 712-3261

FIRM MEMBERS

FIRM MEMBERS

DONOVAN ENGINEERING
2020 INWOOD DRIVE
EXECUTIVE PARK
FORT WAYNE, IN 46815

GREG ROBERTS P.L.S.
JOHN R. DONOVAN P.E. & P.L.S.
FRANCIS X. MUELLER P.L.S.

OFFICE 424-7418

FALK PLI
Engineering & Surveying

Mike Falk, PE, LS
President

5979 McCasland Ave. • Portage, Indiana 46368
Phone: 219-762-7024 • Toll Free: 888-965-1143
Fax: 219-764-4261
Net: www.falk-pli.com

HOLLOWAY ENGINEERING & SURVEYING

Ross Holloway, PE, PLS
President

phone: 317.831.7918
800.831.7918
fax: 317.831.8255

P.O. Box 234 Mooresville, IN 46158
Web: hollowayengineering.com

Marbach, Brady & Weaver, Inc.

3220 Southview Dr.
Elkhart, IN 46514
574.266.1010
Fax 574.262.3040
chris@marbachpls.com

Marbach

Christian F. Marbach, PLS.
President

Engineering & Surveying Since 1918

Morley and Associates Inc.

Consulting Engineers
Land Surveyors
Architects
Construction Managers

Danny K. Leek, P.L.S.

4800 Rosebud Lane
Newburgh, Indiana 47630

Off: 812-464-9585
Fax 812-464-2514

http://www.morleyandassociates.com

Alex D. Oak, PE, RLS
President

PAUL I. CRIPE, INC.

7172 Graham Road
Indianapolis, Indiana 46250
317-842-6777
FAX# 317-841-4798

Architects ▲ Engineers ▲ Landscape Architects
Land Planners ▲ Land Surveyors ▲ Environmental Consultants

Plumb Tuckett & Associates

Michael L. Plumb
Survey Technician

www.plumbtuckett.com
SURVEYORS
ENGINEERS
ARCHITECTS
SINCE 1955

Phone (219) 736-0555 • Fax (219) 769-0178
64 West 67th Place • Merrillville, IN 46410
mplumb@plumbtuckett.com

RAYL SURVEYING & ENGINEERING, INC.

Bradley A. Rayl, P.E., P.L.S.
president

1940 East 53rd Street
Anderson, IN 46013

Business: (765) 643-5614 • Fax: (765) 643-1874
Email: rse@netdirect.net

R.W. GROSS & ASSOCIATES, Inc.
Land Surveyors

Robert Wm. Gross, R.L.S.
President

420 Columbia Street, Suite 100
Lafayette, Indiana 47901-1300
Phone: (765) 742-0101
Fax: (765) 742-7223

---

engineering • gis • surveying

Schneider

The Schneider Corporation
Historic Fort Harrison
8901 Otis Avenue
Indianapolis, IN 46216

317.826.7132 **Direct**
866.973.7100 **Toll-Free**
317.826.7200 **Fax**

Rick Miller, P.L.S.
Director of Surveying

rmiller@schneidercorp.com **E-mail**
www.schneidercorp.com **Web**

Indianapolis ▪ Lafayette ▪ Carmel ▪ Avon ▪ Merrillville

FIRM MEMBERS

Site Line, Inc.
Land Surveying and Development Services

John H. Silnes, L.S.

461 West Main, P.O. Box 602 • Greenwood, Indiana 46142
Office (317) 882-9301 • Fax (317) 882-2201

STOEPPELWERTH & ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
www.Stoeppelwerth.com

David J. Stoeppelwerth, P.E., P.L.S.
President & C.E.O.

dstoeppelwerth@stoeppelwerth.com
Dial Direct: (317) 577-3402
Mobile: (317) 517-6468
Direct Fax: (317) 570-4742

7965 East 106th Street
Fishers, IN 46038
Phone: (317) 849-5935
Fax: (317) 849-5942

TBIRD
Design Services Corporation
Engineering and Surveying

John C. Nagy, P.L.S.

105 N. 10th Street
Lafayette, IN 47901
www.tbirddesign.com

Phone: 765-742-1900
Fax: 765-742-1905
Mobile: 765-479-8320
nagy@tbirddesign.com

UNITED
Consulting Engineers
& Architects

1625 N. Post Road
Indianapolis, IN
46219-1995

Kent D. Downey, P.E., L.S.
President

Bus. (317) 895-2585
Fax (317) 895-2596
E-mail: kentd@ucea.com
www.ucea.com

USI CONSULTANTS, INC.
Engineers • Land Surveyors

Office
8415 East 56th Street
Indianapolis, Indiana 46216
Phone: 317-544-4996
Fax: 317-544-4997
Email: dwoo@usiconsultants.com
postoffice@usiconsultants.com

Daniel R. Woo, PLS
President

VESTER & ASSOCIATES, INC.
SURVEYING & SUBDIVISION DESIGN

PATRICK N. CUNNINGHAM, R.L.S.
PRESIDENT

TELEPHONE
(765) 742-6479
FAX (765) 742-5271

309 COLUMBIA ST.
SUITE 101
LAFAYETTE, INDIANA 47901

WEIHE ENGINEERS INC.

10505 N. College Indianapolis, IN 46280 (317) 846-6611

ALLAN H. WEIHE, P.E., L.S.
PRESIDENT

CIVIL ENGINEERS LAND SURVEYORS LAND PLANNERS

WESSLER & ASSOCIATES
CONSULTING ENGINEERS

"Excellence in Engineering Since 1975"

Connersville
117 East Sixth Street
Connersville, IN 47331
Phone 765.827.4435
Fax 765.827.8996

Indianapolis
6219 South East Street, Suite A
Indianapolis, IN 46227
Phone 317.788.4551
Fax 317.788.4553

Evansville
5401 Vogel Road, Suite 710
Evansville, IN 47715
Phone 812.475.1690
Fax 812.475.1691

West Lafayette
144 Sagamore Parkway West
West Lafayette, IN 47906
Phone 765.463.2400
Fax 765.463.2455

www.mdwessler.com

WIGHTMAN PETRIE
CONSULTING ENGINEERS & LAND SURVEYORS

KENNETH K. JONES, P.L.S. *president*

4703 Chester Drive ◦ Elkhart, IN 46516
o: 574.293.7762 f: 574.294.3717 c: 574.596.9068

email: kenjones@wightmanpetrie.com

Effective Solutions ▶▶▶

WOOLPERT

7140 Waldemar Drive
Indianapolis, Indiana
46268–4192
▶▶▶ 317.299.7500
FAX: 317.291.5805