HOOSIER SURVEYOR

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Kenneth Curtis Receives Service Award

Zach Beasley, Tecumseh Chapter President, W. Lafayette, (left) presents Kenneth Curtis, W. Lafayette, with the Service Award from ISPLS in appreciation for his many years of dedication to the "Hoosier Surveyor".

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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.

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.

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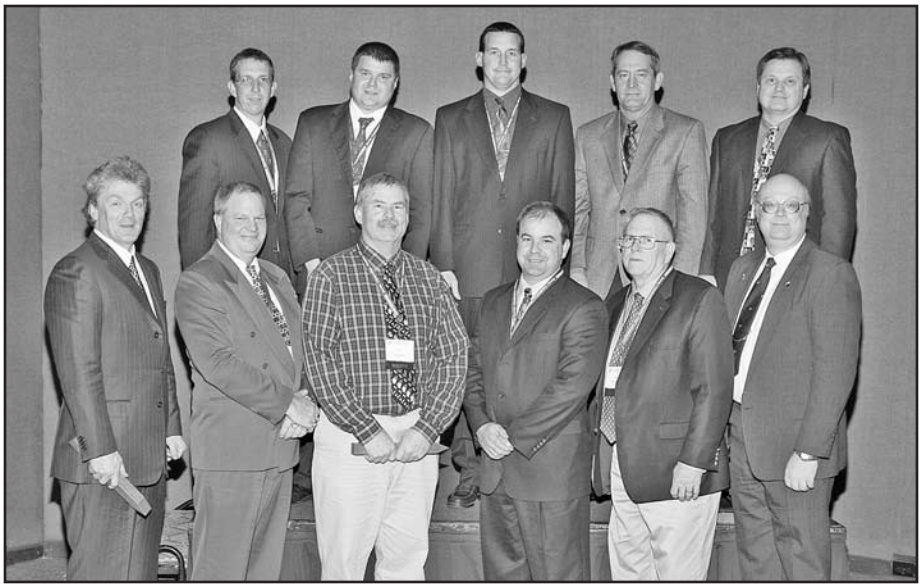

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First row, l to r: Frank Ballintyn,Sellersburg; Jim Tibbett, Linton; Richard Hudson, Valparaiso; Harold Hart, Charlestown; Don Bengel, Valparaiso; Ron Wharry, Frankfort; Second row, l to r: Dan Kovert, Fishers; Ed Sweetland, Greenfield; Mark Isaacs, Brownstown; Steve Murray, Battle Ground; Perry Cloyd, Columbus; not pictured Todd Bauer, Leo.

PRESIDENT'S THOUGHTS

by Ed Sweetland, Greenfield, Indiana

Hello ISPLS members:

Today is April 30, 2007 and I am writing my second president's message to be published in the Spring issue of the *Hoosier Surveyor*. Finally the weather is moderating. Now we can enjoy springtime in the great State of Indiana. As you know Sherry and I are training for a Triathlon event scheduled in June at Elkhart Lake, Wisconsin. Our training program is roughly 75 percent complete. We are currently completing several ¾ mile swims, 18-mile cycling routes and eight-mile runs within our six day workout schedule. Never would I have dreamed that I would become a runner, a swimmer or a cyclist. Instead, I am now all three! I am a triathlete! I write about my personal life because I believe we all need balance in their lives. I encourage everyone to seek a balance between work, family, church and his or her hobbies. I encourage you to send articles to David Best, the *Hoosier Surveyor* editor, about your non-surveying activities for inclusion in future issues.

Now, it's time to get back to business and update you on our current activities of ISPLS committees. The Education Committee headed by Brad Cramer is scheduling two mandatory seminars to be presented by Gary Kent covering the 2007 changes in Rule 12. The Education Committee is also compiling a list of new seminar topics that we believe will be beneficial to both ISPLS members and affiliated state societies. Included in the new seminars will be business related topics such as the "State of the Global Economy" and "How to Write a Business Plan."

On April 7 the Survey Exam Review Committee conducted a seminar at the Purdue Calumet campus. Ten LS and five SIT applicants attended the one-day seminar. My thanks go to Harold Hart, Bruce Franke, Tony Gregory, Nathon Althouse and Keith Hood for their roles in conducting the seminar. We wish the LS and SIT applicants the best as they pursue registration. Harold Hart solicits their feedback on the seminar.

The Scholarship Committee interviewed applicants from Vincennes University on April 13 for the Peggy Archer Scholarship. An article about the winner of the scholarship will be published in the *Hoosier Surveyor*. Committee members will also conduct interviews with applicants for other ISPLS chapter scholarships to be awarded this fall.

The Trig Star Committee , chaired by Tony Gregory, is the proctor for the Trig Star examination administered at Indiana high schools. The Trig Star examinations will conclude early in May. We appreciate the efforts by committee members and chapter representatives in conducting the Trig Star program. Information about the winner of the Trig Star competition will be published in the *Hoosier Surveyor.*

Rick Miller, Amber Van-Til and members of the ISPLS Legislative Committee prepared and submitted House Bill 1651 to the Indiana legislature during its short session this year. The bill's intent was to establish civil penalties for unlicensed individuals practicing as land surveyors, engineers or architects and appearing before the respective boards of licensure and Professional Licensing Agency (PLA). However, ISPLS lost the support of the PLA and an affiliate organization. Therefore, the bill was pulled before it could receive a House committee hearing. Though ISPLS was unsuccessful in its first effort to create and promote a bill before the State legislature we gained valuable experience and now understand the process. We can use the experience to promote bills in the next legislative session. We are now proactive, not reactive to the legislative process. With patience the ISPLS Legislative Committee will reach its goals. Now we know why Rome was not built in one day!

The Public Information and Marketing Committee is preparing a standard presentation to promote the surveying profession at high school job fairs. Committee members will submit articles about ISPLS members and Trig Star winners for publication in local newspapers throughout the state. The Committee will also provide a standard letter for use by ISPLS members and chapter officers to promote the activities of ISPLS members and our society.

The Web Page Committee and Hoosier Surveyor Committees are updating our web site and discussing new features to be included in future issues of the *Hoosier Surveyor.* We welcome your suggestions to enhance the value of the ISPLS web site and the *Hoosier Surveyor*. Submit your ideas to Todd Bauer.

During my year as president I will be attending at least one meeting of each of the ISPLS chapters. On April 24 I attended the Southwest Chapter meeting at Vincennes University. I appreciated the warm reception afforded by Bill Clark, Art Haase, Stu Hein and the Vincennes Surveying Technology students and their efforts in conducting an effective and informative meeting and providing a delicious cookout. Jim Tibbett and I both enjoyed the meal and the company.

Our next ISPLS Board of Directors meeting will be held on May 19 at 9:00 a.m. at ISPLS headquarters. Please consider attending one of our board meetings. Thanks for your support. I welcome your comments and/or suggestions for the betterment of ISPLS.

Ed Sweetland posing with his championship dirt bike.

ISPLS BOARD OF DIRECTORS MEETING HIGHLIGHTS

by Dianne Bennett, Executive Director

January 17, 2007

The ISPLS Board of Directors held a meeting on Wednesday, January 17, 2007 at Adam's Mark Hotel. President Ballintyn called the meeting to order at 9:05a.m. The minutes and treasurer's reports were reviewed and approved.

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

Adjustment to the Agenda - Agency Associates, Inc. - Angela Gorton and Tod Walgren provided information regarding insurance products and coverages and presented a memorandum of understanding for continuing our relationship.

A motion was made and passed to accept the proposed contract with Agency Associates, Inc. with a review of the contract being reviewed in two years.

Communication - Hoosier Surveyor - Articles for the next issue need to be submitted by January 26, 2007.

A motion was made and passed to publish the Hoosier Surveyor on the web site available for the general public to access and review.

Intersociety Relations - The Public Relations and Marketing Committee was merged with the Intersociety Relations Committee.

Membership - The BOD reviewed and approved the membership applications submitted by the Membership Committee.

Past President's Council - A request to establish this committee was forwarded to the By-Laws committee.

Web Page - There is interest in posting advertisements on the web page. A motion was made and passed to establish a $300.00 annual fee for an advertisement on the ISPLS web site.

Professional Development - Education - Information on the location for the 2009 convention was presented.

A motion was made and passed to accept a ten year agreement with the Marriott East, which will also include parking on the site and a request that the BOD be contacted before the renewal period to review the location.

Licensing Exam Review - Location of the next review will be in the northwestern part of the state.

Government Affairs - Board of Registration - The BOR met on Thursday, January 11, 2007.

County Surveyors - It was suggested that local ISPLS chapters work with the County Surveyor's to establish Section Corner Tie Cards.

NSPS Governor/Great Lakes Council - The national NSPS and ACSM convention is March 9th through 12th in St. Louis, MO.

GPS-GIS Monumentation - Federal funds are available to accomplish the height modernization efforts. INDOT is in the process of developing a CORS Station project consisting of 12 core stations and supporting stations.

Legislation - The ISPLS lobbyist will be in attendance at the general membership meeting.

Internal Affairs - By Laws - The By Laws and their relationship to the constitution will be reviewed and a proposal made for a revised document.

Chapters - The committee has been working with local chapters in an effort to establish an award for the best registrant in the local area.

Finance and Planning - Capin and Crouse has finished the financial statement for the period July 1, 2005 through June 30, 2006.

Nominations - The BOD election results were tabulated and the three members elected to the board were Rich Hudson, Don Bengel and Ron Wharry.

A motion was made and passed to destroy the ballots from the BOD election.

New Business - Museum of Surveying - A motion was made and passed to modify our membership to Land Office Sustaining Membership.

February 24, 2007

The ISPLS Board of Directors held a meeting on Saturday, February 24, 2007 at ISPLS headquarters. President Sweetland called the meeting to order at 9:08 a.m. The minutes and treasurer's reports were reviewed and approved.

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

Adjustments to the Agenda - Jeff Dowden with Wallington Asset Management gave an update on the society investment portfolio for 2006.

Communications - Hoosier Surveyor - Articles for the next issue need to be submitted by April 15th.

Membership- The BOD reviewed and approved the membership applications submitted by the membership committee. A membership committee report was submitted to the BOD.

Past President's Council - The council is up and running.

Web Page - The Web site was updated and now has a section permitting members to submit articles and pictures. The Hoosier Surveyor publication is now available for viewing on line. A members only discussion board is also being worked on. A page for the ISPLS President to write monthly messages to the members also was added.

Professional Development - Education - A motion was made and passed to approve the committee's recommendation for the "Updated Rule 12" seminar presented by Gary Kent.

Convention - An update was presented on the 2009-2019 conventions.

A motion was made and passed to deny partial credit that a registrant requested for a 2007 convention session.

Licensing Exam Review - The review will be at the Purdue/Calumet campus on Saturday, April 7th, 2007.

Scholarship - The Vincennes Scholarship interviews will be April 13th, 2007 at ISPLS headquarters.

Trig-Star - The national Trig Star Committee meeting will be Sunday, March 12, 2007 at the ACSM National Convention.

Government Affairs - Board of Registration - Next BOR meeting will be March 9, 2007

County Surveyors - A written report from the committee was submitted Some of the items discussed included splitting Indiana areas into parts, with the help of chapters and ISPLS members, scan all county tie cards and investigate to find a system to scan and display original survey notes on ISPLS web site.

NSPS Governor/Great Council - It was reported that the

...continued Page 5

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Lists at **$8,330**, you pay only **$5,995** for package price or **$172.65** a month!

Item	List Price	Monthly Lease Price
Topcon GTS-236W, 6" Accuracy, Wireless, Laser Plummet	$6,290.00	$135.16
TDS 200NX Recon w/ Standard Software, tripod bracket, & cable	$1,519.00	$31.01
Heavy-Duty Wood/Fibgls tripod	$188.00	$2.59
Single Tilting Prism	$178.00	$2.19
8ft Prism Pole	$155.00	$1.70
Total:	**$8,330.00**	**$172.65**

Engineer's Kit

Lists at **$7,348**, you pay only **$5,295** for package price or **$152.49** a month!

Item	List Price	Monthly Lease Price
Nikon DTM-332 total station with On-Board Data Collection	$6,495.00	$139.58
Heavy-Duty Wood/Fibgls tripod	$188.00	$2.59
Single prism & prism pole	$366.00	$3.92
Nikon 9 pin download cable	$100.00	$1.89
Nikon Connex Software for download & data manipulation	199.00	$4.51
Total:	**$7,348.00**	**$152.49**

Contractor's Kit

Lists at **$7,517**, you pay only **$5,495** for package price or **$158.25** a month!

Item	List Price	Monthly Lease Price
Sokkia SCT6 Construction total station	$4,999.00	$108.00
TDS Recon w/ Layout Pro, includes cable, & bracket	$2,095.00	$45.93
Heavy-Duty Wood/Fibgls tripod	$109.00	$1.98
Mini Prism package	$159.00	$2.56
8ft Prism Pole	$155.00	$1.70
Total:	**$7,517.00**	**$158.25**

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2nd mo. $1000	2nd mo. $288	$712
3rd mo. $1000	3rd mo. $288	$1,424
4th mo. $1000	4th mo. $288	$2,136

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David Best, PLS Celebrates 50th Wedding Anniversary

by Mike Davis, Indianapolis

David Best, PLS, and his wife, Mary Sue, celebrated their 50th wedding anniversary in December with a Caribbean cruise and a Hilton Hotel reception. They were married Dec. 27, 1956, at First Baptist Church in Jackson, Miss., and have lived in Indianapolis since then.

David is in his 36th year with Dominion Group, Indianapolis, as its land surveyor in residence. He is a graduate of Harvard University, Cambridge, Mass., and was a U.S. Air Force officer during the Korean War. He also is an associate professor emeritus with the School of Engineering and Technology at Indiana University-Purdue University Indianapolis.

Mary Sue is a graduate of Millsaps College, Jackson, Miss., and holds a master's degree from the University of Mississippi. She was an instructor in English at Mississippi College, Clinton, Miss., and the Indianapolis campuses of Purdue and Indiana universities. She wrote many feature articles for the former Sunday Star magazine in Indianapolis, and also wrote a weekly column for The Family Service Association.

The Bests are public speakers, addressing local and national audiences. David is a Thomas Jefferson and George Washington re-enactor, and Mary Sue speaks on subjects as a writer, historian and humorist. Both are distinguished Toastmasters.

Minutes
...continued from Page 3

national convention will be held March 9th through 12th in St. Louis. It will be a joint meeting between the Missouri and Illinois societies.

Legislation - An update was given on the proposed civil penalty legislation, HB 1651. Trespass legislation was discussed for future legislative efforts.

Internal Affairs - Committee meeting is scheduled March 1, 2007 in Lafayette.

Finance and Planning - Committee is working on 2007/2008 budget.

Old Business - Indiana-Michigan line. ISPLS liaison will be Scott Ziegler.

Their daughter, Melanie Best, is a writer and editor in New York City. She graduated from Park Tudor School, Indianapolis, and Agnes Scott College, Decatur, Ga., and has a master's degree from Harvard's John F. Kennedy School of Government.

David and Mary Sue also are world travelers, having visited such countries as China, Russia, Egypt, Greece, Finland and Spain.

KENTUCKY PDH'S APPROVAL FOR 2007 INDIANA CONVENTION

Course Name	PDH's Approved	Approval Dates	Course #
Accuracy in Motion, Vertical Testing of ATV Mounted GPS DatA Collection	3	4-5-2007 to 4-5-2010	07-04-059
Traffic Safety and More	3	4-5-2007 to 4-5-2010	07-04-060
Microsoft Using Excel and PowerPoint	3	4-5-2007 to 4-5-2010	07-04-061
Writing and Interpreting Legal Descriptions	3	4-5-2007 to 4-5-2010	07-04-062
Railroad Surveying 101	6	4-5-2007 to 4-5-2010	07-04-063
ALTA/ACSM Land Title Survey-Update	6	4-5-2007 to 4-5-2010	07-04-064
Science of Surveying Measurements	6	4-5-2007 to 4-5-2010	07-04-065

Indiana/Michigan State Line Update

by Mike Davis, Indianapolis

In almost any other winter, land surveyors wouldn't have had to wait very long for several inches of ice to form on standing water in northern Indiana.

This winter, though, members of the Indiana-Michigan State Line Committee had to wait until Jan. 31 for ice to cover a 100-acre swamp's surface and give them access to a historic mile post set by U.S. Deputy Surveyor Eleazer P. Kendrick in 1827.

About three years after he originally found the well-preserved wooden marker on the state line, Michigan surveyor Tom Stephenson, PS, of Cassopolis, Mich., again reached into the icy water about three miles north of Bristol, Ind., and pulled out the post's chiseled tip.

Photos show chop marks on the shaft's surface from where an ax was used to sharpen it before it was pushed into place at mile 52.

"It's not too sharp since it was going to be pushed into a swamp, not driven into soil," said committee chairman Jack Owens, PS, of Flint, Mich., one of those at the scene.

Norman Caldwell, of Owosso, Mich., holds what's left of the post set at mile point 52 on the Indiana-Michigan boundary by U.S. Deputy Surveyor Eleazer P. Kendrick in 1827. The tapered surface shows marks left by an ax to sharpen it before it was pushed into the swamp at that point. Members of the Indiana-Michigan State Line Committee waited until the swamp's water froze in late-January so they could walk to the location and inspect the marker, rather than wade out to it.

"I think it was oak from looking at it. We did not cut into it to analyze it. Typically, deputy surveyors would use hard wood species such as oak. . . . The ridge they came off of 300 feet west had oak and hickory on it as the predominant species.

"The only corner identified as to species of wood was the northeast corner of Indiana, which Kendrick stated was a six-inch square white oak stake.

"Kendrick listed two white oaks as the bearing or witness trees for mile post 52, both 300 feet to the west which put them on the

Donald Andrews, PS, of Sturgis, Mich., marks the location of the Indiana-Michigan state line mile post 52 with a Global Positioning System receiver. The point is in a brush-covered 100-acre swamp described by U.S. District Surveyor Eleazer P. Kendrick as a "wet meadow" in his 1827 field notes. When Tom Stephenson first found the post in January 2004, he needed to use an all-terrain, amphibious eight-wheel-drive vehicle to reach the location.

west edge of the 'wet prairie,' the marsh. We looked for them but they are no longer extant. The positions fell just uphill slightly from the edge of the marsh."

Stephenson, who first located the post in January 2004 while verifying a closing corner position, had marked its position in the swamp with a three-quarter-inch pipe about 8 feet long. It's alongside a separate cedar "stick" about 6 feet long that was all he could originally see above water. "We don't know how long that's been there," Owens said.

After committee members inspected the 1827 marker and photographed it from a variety of angles, it was placed back below the swamp's surface to await a decision on how it's to be permanently preserved.

Tom Stephenson, PS, of Cassopolis, Mich., holds remnants of mile post 52 pulled from the waters of a swamp on the Indiana-Michigan boundary about three miles north of Bristol, Ind. When he first located the post's position in January 2004, the piece of cedar at lower right in the picture was the only evidence above the surface. He found the mile post under the icy water and then marked the location with the three-quarter-inch pipe shown alongside the cedar "stick."

The committee's secretary, Norman Caldwell, PS, of Owosso, Mich., indicated that most of the group's progress in preserving evidence of the original mile posts has been in a 53-mile stretch east from the survey's starting point on Lake Michigan, as well as from mile point 103 to Indiana's northeast corner, which is at a record distance of 104.619 miles.

In an e-mail message to surveyors working on the project, he said work continues along the line between LaPorte County, Ind., and Berrien County, Mich., where Global Positioning System geodetic values are being collected on known monuments.

"Upon completion of this effort, an analysis will be performed on the available data, and precise search areas defined for the unrecovered mile posts between '0' and '52,' " he reported.

The committee also has discussed a need to install temporary monuments at mile post locations that have been recovered.

"The western 50-plus miles are beginning to take form, and it is anticipated that an overall review of this segment will be performed in 2007," Caldwell noted following a March meeting.

Caldwell said John McNamara, PLS, county surveyor in St. Joseph County, Ind., indicated the county would cover the cost of any mile post monument placed along its northern boundary, from mile points 16 to 39. Michigan remonumentation funds are also available and may be used for this purpose in other areas, Caldwell reported.

The committee also discussed soliciting funding from local municipalities and seeking sponsorships from surveying and engineering firms for markers.

(See also: McNamara, John, "The Indiana Michigan Boundary," The Hoosier Surveyor, p. 19-21, Vol. 29, No. 4, Spring 2003; and Davis, Mike, "The Indiana/Michigan Line," The Hoosier Surveyor, p. 10-11, Vol. 33, No. 2, Fall 2006)

Tom Stephenson, PS, of Cassopolis Mich., uses an ice-fisherman's spud bar to open a hole in the ice on the surface of a swamp at mile point 52 on the Indiana-Michigan state line, where three years ago he located an original 1827 post set by U.S. District Surveyor Eleazer P. Kendrick.

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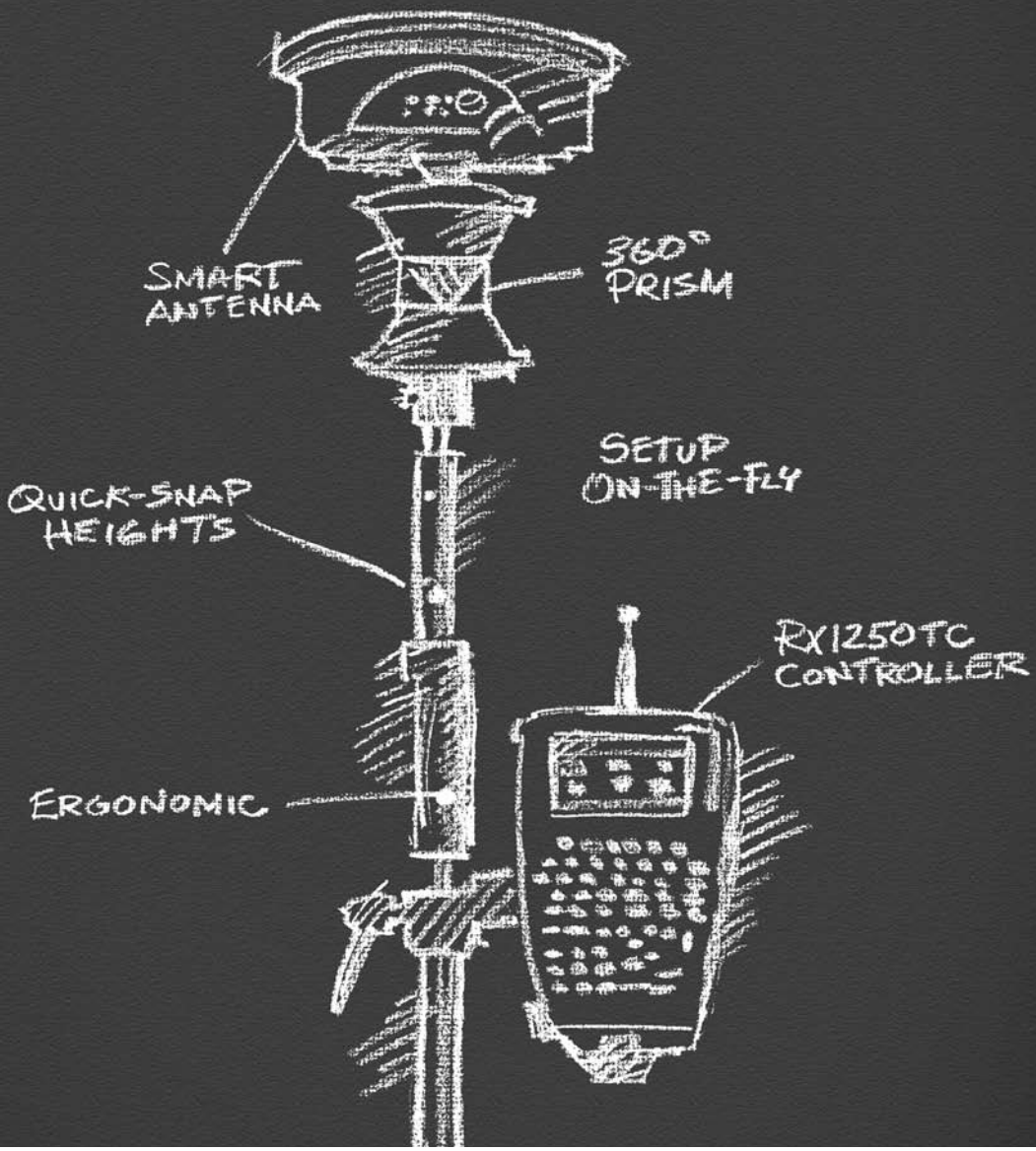

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Historical Survey Records Now Available at GLO Web Site

By Writer-Editor, Peggy Riek, and General Land Office Systems Manager, John Butterfield, Bureau of Land Management-Eastern States

Springfield, VA (August 22, 2006) – Did you ever wonder how the early pioneers of our Nation saw our land as they moved from the colonies in the East to the West in search of a new life in the old Northwest Territory? You're in luck.

The Bureau of Land Management (BLM)- Eastern States has added yet another interesting feature to the Department of the Interior's popular General Land Office (GLO) Records Web site at www.glorecords.blm.gov. At the GLO Records Web sites "New! Survey Plats" link, visitors can now view historical and current cadastral survey information performed for other federal agencies in Texas and from the 13 original colonies.

Survey plats and field notes are the official survey documents used when land title is transferred through land patents from the federal government to individuals. Today, these critical historic documents help researchers locate the land referenced in a land patent's legal land description.

These survey plats further tell the story of each area surveyed, like a picture during the early settlement of the United States. As the early surveyors moved and surveyed westward, pioneers followed and settled on the "best lands," as rated by the early surveyors and noted as first rate, second rate, or third rate.

Using the U.S. rectangular system of surveys, also called the Public Land Survey System, surveyors first created field notes describing, in detail, the surveyed lines, the terrain over which they passed, and the nature of the soil, vegetation and timber, salt licks and other items of economic interest. From those notes, survey plates were prepared.

"These plats not only show the boundaries, but also define and name the parcels and subdivisions of the land as well as some of the physical features found in the notes. In many ways, these records were the first maps of the country which show the locations of rivers, early settlements, roads, forts and trails as well as items of topography," said Chief, Cadastral Survey, Michael Young, BLM-Eastern States.

BLS-Eastern States maintains the repository for the Nation's original survey records for the Secretary of the Interior, totaling 133,000 survey plats and 2.75 million pages of field notes dating back to the 1820s. These records contain a complete description of each mile surveyed, every monument set, and every bearing tree scribed.

"Through the years, we have formed both federal and state partnerships for the exchange of survey records, survey plats, and field notes, In 2004, we began making the records available for viewing on the Internet," said State Director, Michael Nedd, BLM-Eastern States.

These survey plats are now being scanned to full color, high resolution images, then compressed and made available to the GLO Records Web site, while the uncompressed images are archived onto ling-life optical media. To date, over 37,000 surveys have been added to the GLO records Web site.

Another phase of the GLO Record Automation which is under development and testing for the GLO Records Web site involves the automation of the original field notes. Currently, field notes for the "beta" test state of Oklahoma are being automated with 40 percent completed.

Once the field notes are scanned, they are linked with the plats during the indexing phase to allow the end user the ability to go directly from a survey plat to a boundary description in a set of field notes. In the past, public access to field notes required hours of researching records using microfiche at a county survey or records office, a state survey office, or a BLM State Office.

"Having these records available on the GLO Records Web site offers greater efficiencies for reliable and smooth flow of information to the public. Title companies, surveyors, historians, genealogists, schools, and other interest people will now be able to obtain data and images capturing historic and current land survey plats," said Nedd.

"The GLO Records Web site debuted in May 1998. Since then, we have been improving public access to the federal land patents within the 30 Public Land States," said Branch Chief, General Land Office Records Automation, Patricia Tyler, BLM-Eastern States. Now, more than 3 million cash entry and homestead patent documents for the eastern and western states between 1820 and 1960 are available online. Once automated, the documents are withdrawn from public use and placed in archival storage to protect the records. The public can access the GLO Records Web site 24 hours a day, free of charge, and view, print a copy, or request a copy of a document from the BLM.

From The Michigan Professional Surveyor, July/August 2006

NCEES Issues List of Calculators Permitted in Examination Room

The National Council of Examiners for Engineering and Surveying (NCEES) has approved a list of calculators for the April and October 2007 exam administrations. The following models are the only calculators that will be permitted in the examination room for the 2007 exam administrations:

Hewlett Packard – HP 33S
Casio – FX 115MS or FX 115MSPlus
Texas Instruments – TI 30X 11S
Texas Instruments – TI 36X Solar

Each year, NCEES will review and revise the approved calculator list and then announce the updated list by November 15.

Please distribute the above list accordingly. For more information, please see the Calculator Policy at www.ncees.org or call NCEES headquarters at 864-654-6824

NCEES develops licensing examinations of the engineering and surveying professions. These examinations are used by engineering and surveying licensing boards across the United States as part of their candidate assessment process. NCEES also provides examination scoring and administration services to licensing boards, as well as a variety of other products and services to engineering and surveying professionals. NCEES headquarters is located in Clemson, S.C.

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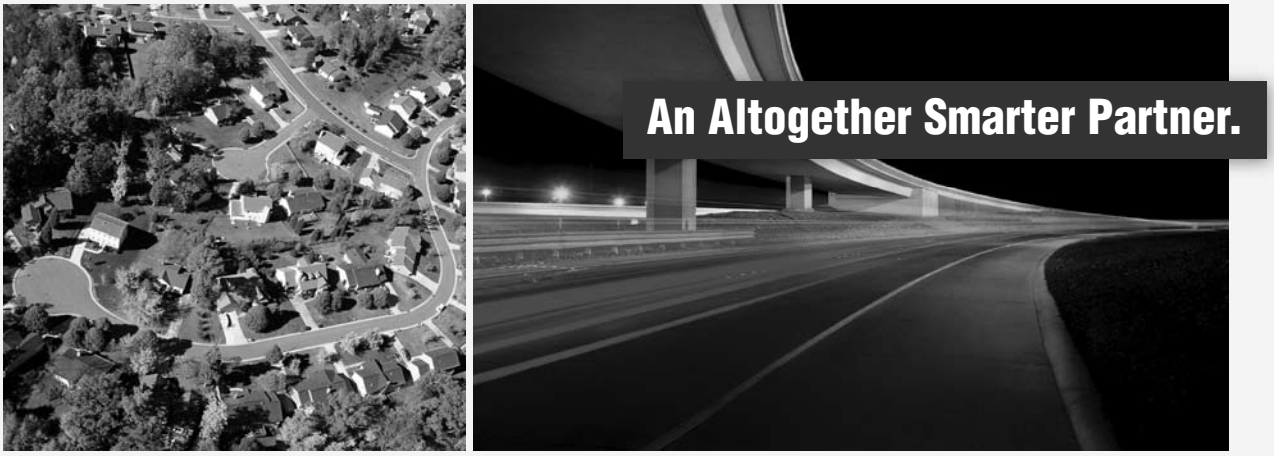

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Hoosier Surveyor Soliciting News Articles

by Mike Davis, Indianapolis

The Hoosier Surveyor needs your news.

We'd like to hear about your experiences, better ways of doing something, favorite resources, unique projects, family members' accomplishments, or anything of interest to members of the Indiana Society of Professional Land Surveyors.

Firms are also welcome to send news about such activities as hirings, promotions, special assignments or retirements.

If you have an idea for an article or would like to submit one, contact Hoosier Surveyor editor David Best by e-mail at dbest@dominiongroup.org or by phone at (317) 271-8888.

Need some tips on writing? Here are a few things to think about:

- You can't go wrong by including a writer's five W's and an H, trying to answer as many questions as possible: Who? What? When? Where? Why? How?
- You'll catch readers' attention by saying how it will affect them or by making a connection to someone they might know, such as a fellow ISPLS member.
- Try to put the most important information in the first paragraph or two, followed by the next most important or more details.
- Double-check the spelling of names and places.
- Write in your own words, or use quotation marks and tell who you're quoting.

Pictures also help tell a story and draw attention to it. Photos from digital cameras can be sent by e-mail, but that shouldn't rule out using a print or a newspaper clipping.

If you're taking a photo, here are some suggestions:

- Try to take pictures when people are doing things. To avoid a "posed" photo, ask your subjects to do several steps of their job and photograph them. Sometimes it relaxes people to get them to tell you what they're doing as they go through the steps.
- For at least a few pictures, get in close enough to fill the camera's frame. The best pictures show no more than a few people doing something.
- It's good to take a variety of types of photos, if you can – a closeup of an object, a shot from a bit farther back to set the scene, a vertical view if most of the others are horizontal, or perhaps one taken while you're kneeling or from any perspective other than eye level.
- Think about lighting. Try to move so the sun is behind you or at an angle, casting some light on your subject's face.
- Gather information about those in the picture. Write down everyone's name, from left to right, and spell their names back to them after you write them down.
- Supply as much information as possible about what's in the picture. Try to include the five W's and an H that's used in writing. If surveying equipment is shown, write down details such as company or manufacturer, type of device and model.\

Good luck!

BOOK REVIEW "Interpreting Land Records"

Review by Mike Davis, Indianapolis

If you have an interest in books on land surveying, the Indiana Society of Professional Land Surveyors has received a copy of "Interpreting Land Records," by Donald A. Wilson, published in March 2006.

The book will eventually go in the ISPLS library, but first the Hoosier Surveyor committee is looking for someone to read it and tell others about it by writing down some observations.

Here's what the publisher, John Wiley and Sons, says about the 440-page book:

"The book provides an introduction to land records in the United States, covers various methods of historic surveys used throughout the country, practical information on records research, the meaning of historic words and phrases, and the use of historic maps, photographs, and written documents in establishing a boundary for which the official records are lost or corrupted.

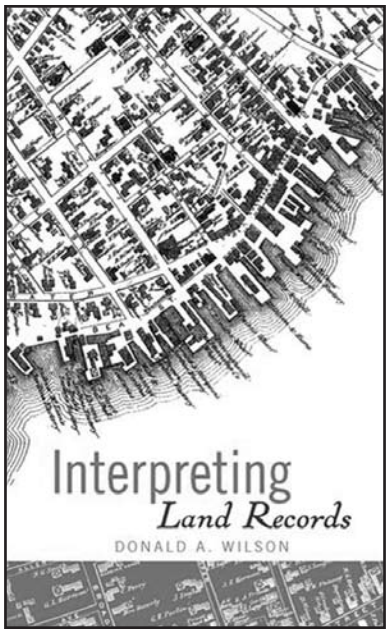
"All this is supported with extensive case law and citations which assist the reader in building a defense for their findings to present in court."

Anyone interested in reading and reviewing the book should contact Hoosier Surveyor editor David Best at (317) 271-8888 or dbest@dominiongroup.org.

The Hoosier Surveyor also is interested in hearing about other books on land surveying that you've found to be especially useful and would like to recommend to others.

Write down why you liked the book and send the information to the ISPLS office by e-mail at ISPLS@aol.com or by mail to ISPLS, in care of Hoosier Surveyor, 55 Monument Circle, Suite 719, Indianapolis, IN 46204.

To see titles of books that are on file in the ISPLS library, log on to the Web at www.ispls.org and select the Library link.



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Indiana Surveying Board Adopts Changes to Administrative Rule

by Gary R. Kent, PLS, Noblesville, IN

Effective in June 2006, the Indiana State Board of Registration for Land Surveyors adopted a major revision to its administrative rules. Much of this year-long effort involved changes to Rule 12 – the Indiana Survey Standards.

Along with a number of other minor and major additions, clarifications and changes, two of the most significant were a complete rewrite of Rule 12's measurement standard and the addition of a new section on corner perpetuation.

The new measurement standard, replacing, but not conceptually dissimilar to "Theoretical Uncertainty" (which had been in the Rule since its initial adoption in 1998), is *Relative Positional Accuracy* (RPA).

Remembering that there is no such thing as a perfect measurement – one without any error - RPA requires the analysis of the individual factors that contribute to an imperfect survey measurement, followed by a statistical determination of how those factors combine to affect the measurement itself. For example, in measuring an angle, the inability to point exactly to a target, to set up an instrument exactly over the station, and the inherent inaccuracies in even the most accurate total station (among other contributing factors) all individually combine to create some level of uncertainty in the angle itself.

The result of these measurement analyses is the development of a relative error ellipse between any two points on a survey. The size of each of these ellipses is then compared to what is allowable. Then accuracy of the points on the survey (to the 95% confidence level) is determined.

The use of RPA is consistent with the direction that the Federal government and the National Society of Professional Surveyors are taking with regard to understanding, applying and publishing errors in surveys and survey control points. The old methods of assessing accuracy (e.g. linear error of closure and relative error of closure) simply do not apply and do not even work in the world of GPS, laser scanning and the various combinations of surveying equipment and procedures that are commonly used today.

Another major change to Rule 12 was the addition of new Section 30 on Section Corner Perpetuation.

While many surveyors think this section has put a new and significant burden on surveyors, it unreservedly has not. Surveyors have *always* had the legal responsibility to utilize proper public land and grant corners in their work. The courts have held this position thousands of times over hundreds of years. Any surveyor who expects to defend the use of an improper corner in court by testifying that it would have cost too much to recover, or that the county surveyor did not have information on the corner, is in for a rude awakening.

In Indiana, county surveyors have had the express statutory responsibility for perpetuating the public land corners in their counties since the mid 1960's. But this has merely been a benefit to the private surveyor in those counties where the county surveyor actually was able to secure funding and expressed an interest in doing corner perpetuation. In cases where private surveyors need certain corners in order to properly conduct a boundary survey, the fact that the county surveyor does not have the corners referenced *absolutely and categorically* does *not* relieve private surveyors of the duty to properly perpetuate those corners themselves.

In fact, the reason that so much of the State of Indiana has such a poor history of documented public land and grant corners is not only because the county surveyors have not been able to do their jobs (for whatever reason, and there are many), but because, historically, many private surveyors have shirked their legal duty in that regard.

Section 30 outlines the procedures and requirements for conducting a boundary survey vis-à-vis the use and recovery of proper public land and grant corners. The purpose of the rule is to enforce the common law rules that surveyors are already supposed to be abiding by with regard to the use of public land corners.

Ideally, county surveyors will individually and collectively continue to make progress in this regard, but, again, if for whatever reason they cannot, Section 30 outlines what the courts have already *expressly* stated – the private surveyor must use the proper corners when conducting a survey.

Section 30 reads in its entirety as follows:

865 IAC 1-12-30 Section corner perpetuation
Authority: IC 25-21.5-2-14
Affected: IC 25-21.5; IC 36-2-12

Sec. 30. (a) This section outlines the procedures and requirements for registered land surveyors when perpetuating the location of original public land survey or grant corners. As used in this rule, "grant" means a subdivision, parcel, or tract of land that existed, or the parent tract of which existed, prior to the commencement of the United States Public Land Survey adjoining such subdivision, parcel, or tract.

(b) The purported location of an original public land survey or grant corner as referenced by the county surveyor of the county in which the corner exists is prima facie evidence of that corner's location. The registered land surveyor's responsibility with regard to the use of or need for original public land survey corners or grant corners in association with an original or retracement survey is not met by merely contacting the county surveyor.

(c) If the:

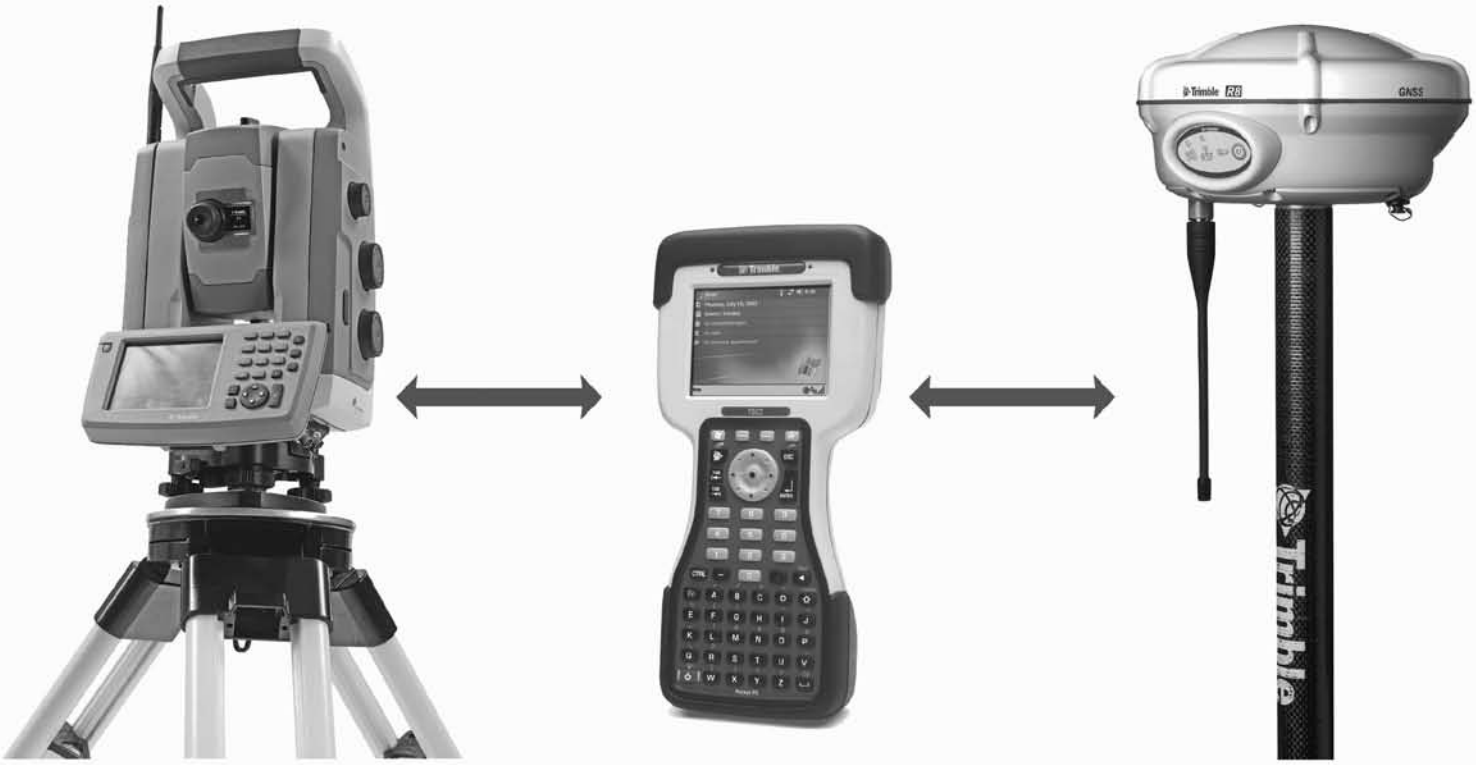
(1) location of an original public land survey or grant corner is not monumented and referenced by the county surveyor in accordance with Indiana Code 36-2-12; or

(2) registered land surveyor discovers evidence, or otherwise has reason to believe, that a monument purporting to mark the location of an original public land survey or grant corner is not in the proper location;

and if that corner is necessary for purposes of conducting an original, retracement, or route survey as defined in this rule, the registered land surveyor shall contact the county surveyor and perpetuate that corner's location in accordance with this section if

...continued Page 15

MAKE THE CONNECTION



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the county surveyor is unable to perpetuate the corner in the time frame required by the registered land surveyor.

(d) A registered land surveyor shall perpetuate the location of an original public land survey or grant corner by gathering evidence that may assist in determining the original location of that corner. This evidence includes, but is not limited to, the following:

(1) Copies of:

(A) The original public land survey field notes and plat or transcribed copies of same.

(B) Deeds and plats that reference the location of the corner.

(C) Historic survey records, road, street, highway, and bridge plans, corner records, recorded surveys and other relevant information from the county surveyor, county recorder or other county, state and municipal offices.

(D) Current or historic aerial photographs.

(E) Records from private surveyors who practice or used to practice in the vicinity of the corner.

(2) Parol evidence from knowledgeable landowners or others who may have information relating to the corner.

(3) The field location of:

(A) Fences.

(B) Walls.

(C) Roadways.

(D) Survey markers.

(E) Tree lines.

(F) Other lines of possession.

(G) Interrelated or nearby section corners, quarter section corners, quarter-quarter corners, or other aliquot corner of a section, and corners of common report.

(e) After evaluating and weighing the evidence outlined in subsection (d), the registered land surveyor shall do the following:

(1) Apply appropriate theory of location to determine the probable locations of the corner.

(2) Excavate or otherwise determine if there is a subsurface monument in those locations unless, in the registered land surveyor's opinion, there is no substantial possibility of:

(A) a corner stone; or

(B) other historical survey monument;

being found in those locations. Examples of such situations include, but are not limited to, corner locations that fall in concrete highways, in areas where other excavations have previously taken place, such as, for culverts or sewers, or in areas of substantial cut or fill, such as, for interstate highway overpasses or underpasses. Before excavating, the registered land surveyor shall notify the appropriate jurisdictional agencies.

(f) If, as a result of the corner investigation:

(1) a corner stone;

(2) historical survey monument; or

(3) other evidence;

is found marking the corner, the registered land surveyor shall remonument and reference the corner if necessary to facilitate its recovery by other surveyors.

(g) If, after excavating or otherwise conducting subsurface investigations of the probable locations outlined in subsection (e), a corner stone, historical survey monument, or other evidence of the corner is not found, the registered land surveyor shall do the following:

(1) Establish the location of the corner:

(A) based on the best available evidence; and

(B) in accordance with procedures for lost or obliterated corners outlined in or authorized by 43 U.S.C. 751 through 43 U.S.C. 753. The board hereby incorporates by reference the United State Codes Title 43 (Public Lands), chapter 18 (Survey of Public Lands) sections 751 through 753.

(2) Monument that location.

(h) If the corner was perpetuated for use on an original, retracement or route survey, the registered land surveyor shall do the following:

(1) Describe and reference the monument in such a manner that facilitates its recovery by other surveyors.

(2) Document the following:

(A) The chain of history of the corner to the best of his or her knowledge.

(B) The evidence found and weighed.

(C) The search area or areas.

(D) The theory of location applied in re-establishing the corner.

(E) Other relevant information regarding the perpetuation of the corner in the surveyor's report or on the plat of survey, or both.

(3) Provide a copy of the surveyor's report and plat of survey to the county surveyor.

(State Board of Registration for Land Surveyors; 865 IAC 1-12-30)

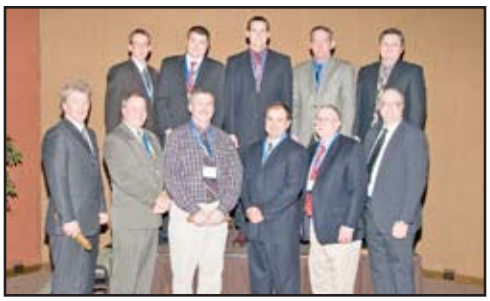
Gary Kent is the vice chairperson of the Indiana State Board of Registration for Land Surveyors. He is employed by The Schneider Corporation and is past President of the American Congress on Surveying and Mapping and of the Indiana Society of Professional Land Surveyors. Gary is a regular speaker across the country and writes columns for "The American Surveyor" (called "Reconnaissance") and for the ACSM Bulletin.

ISPLS 55th - Annual Convention Highlights
Adam's Mark Hotel, Indianapolis (January 17-19, 2007)

Randy Miller, Marion, receives ISPLS Polaris Award from outgoing president Frank Ballintyn, Sellersburg.

Hosted by
Central Indiana Chapter
Attendance:
Full time - 485
One Day - 51
Student - 36
Spouse - 23
Tech Program - 89

Robert Vollmer, Nashville, recieves Presidents award from outgoing president Frank Ballintyn, Sellersburg.



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Doug Herendeen, Convention Chair, Master of Ceremony

Thanks to our 2007 Exhibitors

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Aerocon Photogrammetric Services, Inc., Avon, IN
Agency Associates, Inc., Zionsville, IN
Astro Wood Stake, Inc. Zeeland, MI
Avatech Solutions, Owing Mills, MD
Carlson Software, Masville, KY
Continental Sales, Fort Wayne, IN
Eagle Point, Dubuque, IA
Ellerbusch Instrument Co., Cincinnati, OH
IDNR Division of Water Indiana, Indianapolis, IN
Indiana Surveyor's Historical Society, Lawrenceburg, IN
Lobo Aerial Surveys, INc. Columbus, IN
Marbaugh Reprographics Supply, Indianapolis, IN
Pinnacle Mapping Technologies, Indianapolis, IN
Positioning Solutions Company, Indianapolis, IN
Priority Engineering, Indianapolis, IN
Rinker Materials -Storm Ceptor, Greenfield, IN
Seiler Instrument, Indianapolis, IN
Surv-Kap, Inc., Tucson, AZ
The Sidwell Company, St. Charles, IL

Pictures provided by Henry Alridge

"Science of Surveying Measurements"
Speaker: Joseph V.R. Paiva

"Higher Order of Surveying in Indiana" & "State Plane Coordinates and Improving Your Field Procedures"
Speaker: James Reilly

"The Indiana Map"
Speaker: Jill Saligoe-Simmel, Ph.D.

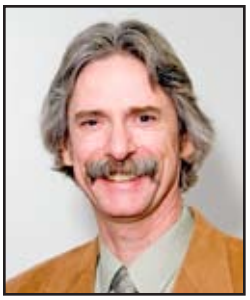
"Railroad Surveing 101"
Speaker: Charels Tucker

"Using Excel and PowerPoint"
Speaker: Casey Glanders

"Section Corner Perpetuation"
Speakers: Cindy and Curt Candler

"Construction Surveying & Layout-A Discussion of Mistakes and Errors"
Speaker: Wesley Crawford

"Writing and Interpreting Legal Descriptions"
Speaker: Anthony Gregory



"ALTA/ACSM Land Title Surveys" & "ALTA for Field Personnel"
Speaker: Gary Kent

"Traffic Safety and More"
Speaker: Ronald Koons

Incoming ISPLS President, Ed Sweetland, Greenfield

"Accuracy in Motion, Vertical Testing of ATV Mounted GPS Data Collection"
Speaker: Bruce Strack (left) and Craig Williams

(L) Purdue University students in attendance

(R) Vincennes University students in attendance

MEET A MEMBER

by David Best, PLS, Indianapolis

This is a new feature for the *Hoosier Surveyor.* We welcome suggestions for future interviews with ISPLS members, long-standing or recent additions to our membership. Our first interview is with James E. Dankert, P.E. and L.S., who served as president of ISPLS in 1961.

Dave: **Jim, tell me about your schooling and what led you into the field of engineering and surveying.**

Jim: After moving around the country with my family during The Great Depression years I found myself attending high school in Dubuque, Iowa from 1934 to 1936. There I began training to become a cabinet wood worker. From Dubuque we moved to Indianapolis where I graduated from Arsenal Technical High School in 1940. That year I was hired by Paul I. Cripe company as an architectural draftsman. My assignments were preparing house plans meeting FHA Minimum Property Standards. One day they needed someone to serve as a rodman on a mortgage survey crew. I was enlisted. On the first job on a downtown Indianapolis lot on East Market Street I learned how to throw a chain. And I've never forgotten how! A short time later the party chief quit and I took his place. As party chief my salary was $15.00 a week! I bought a 1935 Chevy for $135.00. We received 15 cents for each mortgage survey we drafted. I frequented the Marion County Court House, now the site of the City County Building. There I copied plats by hand in the Recorder's Office and obtained other pertinent information for the surveys. During World War II I joined the Seabees, took the test for the Navy V-12 college program and was accepted in the Purdue University program. In 1948 I graduated from Purdue with a degree in civil engineering. During my years at Purdue I enrolled in many land surveying courses. I became an Indiana registered land surveyor in 1948 and received my professional engineer's license in 1952.

Dave: **In your many years with Paul I. Cripe what roles have you played in the company's development?**

Jim: I rejoined the company in 1948 as a partner. Through the years I've worn many hats. I was in charge of its survey crews and of the design and preparation of plans for apartment projects meeting the FHA Minimum Property Standards requirements. I was responsible for the surveying and rezoning of the following projects: Eagledale, Gateway, all College Life Insurance projects including College Park and North Willow Farms. Beginning in 1972 we developed the plats and plans for the Shorewood projects at Morse Reservoir and Geist Reservoir.

Dave: **I understand that in 1953 you were involved in the founding of ISPLS.**

Jim: Stephen W. Burres, Marion County Surveyor at the time, and I attended several meetings at Purdue to discuss the formation of ISPLS. I believe the staff of the School of Civil Engineering at Purdue had a big part in the creation of ISPLS.

Dave: **Please comment on the remarkable technological advances in land surveying.**

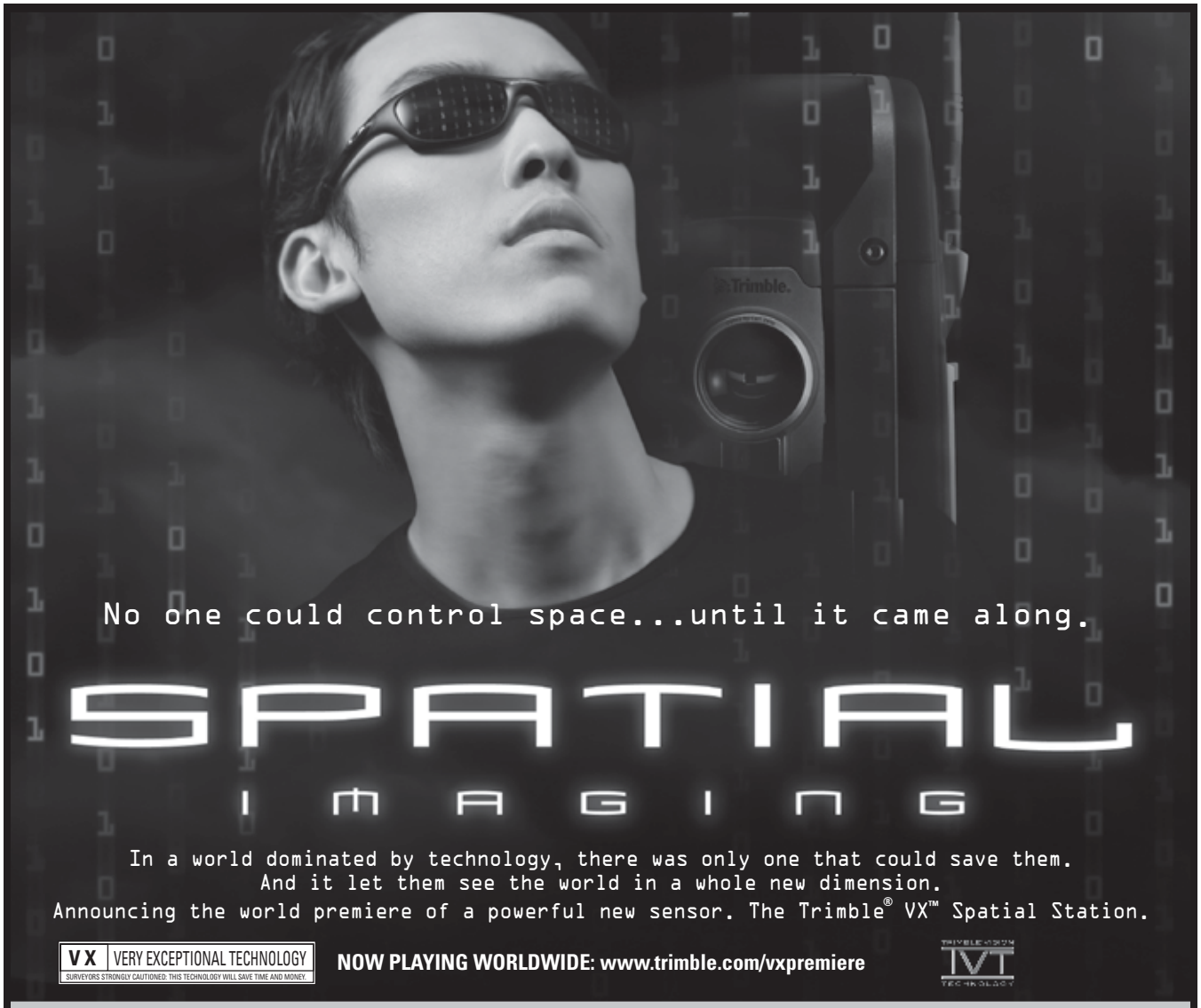
Jim: The tools of surveying have changed dramatically. At the time I started we all used a 100-foot steel tape, also called a "chain," plumb bobs, and a transit. No longer do we struggle to close traverses and measure long distances with a 100-foot tape and a set of eleven chaining pins. No longer do we work all night lettering a plat. The first computer and the geodimeter overnight increased our efficiency and the quality of our work. Today we have GPS! What can you say? However, we still have to be careful every minute. I say, "Welcome to the 21st Century!"

Dave: **Indiana land surveyors must meet continuing education (CEU) requirements. What are your thoughts on this?**

Jim: A major ISPLS effort was to lead land surveyors in attaining professional status by means of a State Registration Board testing and grading procedure which has been upgraded over time. I give Wes Day, now deceased, credit for his outstanding contributions in establishing the standards by which land surveyors in Indiana now operate. I feel that the CEU requirements for license renewal provide educational opportunities that otherwise would not be available. However, I wonder without tests of the CEU knowledge gained is that knowledge mute?

Dave: **In your retirement years what community activities are you now engaged in?**

Jim: I retired in 1994. Since then I have volunteered at Conner Prairie as a wood worker and at the Indiana Transportation Museum at Forest Park in Noblesville. There I do woodworking, design railroad track layouts, and cut the grass. Currently, I'm involved in a small way in the renovation of "578," a steam locomotive built in 1918 that pulls the train to the Indiana State Fair every year.



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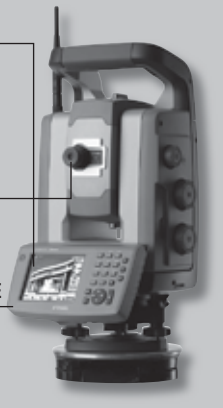

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The Three C's of Construction Layout

(Not just check, check, check)

by Paul J. Gregoire, LS

One of the functions of the AOLS members who serve on the Insurance Advisory Committee is to assist the insurance adjuster in survey matters relating to an insurance claim or a potential claim made by a policyholder. On most occasions the events or survey activity giving rise to the claim are fairly straightforward, on other occasions a more detailed review of the project activity is required.

A review of a number of the claims made over the past few years would reveal that there are numerous ways (some would say an endless number) in which the surveyor finds himself party to a claim. Some claims do not result in damages and are reported due to an over abundance of caution, other claims can be resolved by mutual agreement between all of the parties involved, and still others lead to litigation and result in payment of damages.

The following article attempts to outline some of the survey practices, which if followed, may help reduce the surveyor's exposure to risk and potential liability claims. A majority of these best practices are most relevant to our field staff, who are the eyes and ears of the surveyor on each project. Some of the practices are relevant to the computations staff or the project manager and/or the project surveyor. The survey practices are grouped into one of three categories. A detailed look at each of these categories will help the surveyor identify with scope of work that is to be contracted. It will help to identify potential risks and will assist in preparing a successful plan to complete the work in an efficient and cost effective manner.

Communication Issues

1) What are the client's requirements and specifications/tolerances, i.e. building corners, gridlines, offsets, temporary benchmark locations?

2) What are the client's critical timelines for project start-up?

3) What are the existing site conditions i.e. can a crew work safely on site or is there construction activity ongoing, such as earthworks or the installation of services that will affect your work? Familiarity with the site prior to providing a written quotation is essential – don't take the word of someone who may not have personally been on the site or who provides general information, which you rely on to make assumptions. Go visit the site prior to preparing a fee estimate.

4) Determine what the future work schedule is going to be – can a crew lay out all key points in one or two days or do they need to return to the site twice a week for the next month as excavation progresses, i.e. caisson layout? (This has a big impact on pricing the work).

5) Has the client provided a set of drawings that are stamped "Issued for Construction" and has the client provided you with a clear understanding of his expectations on which you are to base the fee estimate?

6) Ensure that you understand the work schedule so that you have enough time to prepare for upcoming project requirements and are not rushed into providing layout before all the initial prep work has been completed.

7) When issuing survey returns to the client (or third parties), which include data derived from other sources, be sure to include a disclaimer note on the plan indicating the source of the data and that you provide no assurances as to its correctness and accept no responsibility for its use. Provide a similar disclaimer for topographic surveys conducted during winter conditions.

Contractual Issues

1) Provide a written estimate or quote so that you can obtain proper work authorization for the survey layout work to be undertaken. This can be in the form of a sign back, a purchase order, etc. Include a defined scope of work, an identified work schedule, and an agreed upon compensation (lump sum or hourly rates) prior to commencing work. It's a good idea to specify that you require advanced notice prior to sending a crew to the site, you may not always be able to prevent rush requests for urgent layout but it gives you an out if you need some lead time prior to attending on site.

2) Obtain written authorization for additional survey work, i.e. a sign back letter of authorization or client purchase order. Ensure that the party chief does not undertake work that was not scheduled or approved for layout that day, i.e. don't let the site super redirect the crew's activity to do extras that were not planned nor approved.

3) Identify who is responsible for work that has to be redone due to design changes or construction activity. This can be minimized by ensuring that you work from drawings that have been "issued for construction."

4) Document each survey milestone as well as each change order including telephone/fax/e-mail correspondence with the client, the site superintendent, and each of or who have issued instructions to you.

Computations issues

1) Review the approved site drawing to ensure that building and site dimensions work, i.e. that the building closes and the site dimensions agree with the boundary survey.

2) Pre-compute site boundary geometry and position the building to ensure setbacks comply with minimum requirements and the approved site plan.

3) Compute grid line positions relative to the building face and position caisson locations relative to grid intersections.

4) Establish horizontal and vertical control stations on site and reference these points for future re-establishment. Level loops are to be closed, reduced, and double checked at the time of field observation.

5) Integrate cadastral fabric to horizontal control if applicable.

6) Compute layout data for the field crew by preparing a coordinate list and/or polar layout for all points from each control station.

7) Upon completion of layout, the field crew must provide confirmation of what was laid out by preparing a sketch for the site supervisor. The sketch must clearly indicate offsets used and illustrate the location of the site's temporary benchmark(s).

8) Complete an office review of all layout performed by the field

...continued Page 23

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crew after each field trip. Check the notes to ensure that redundant measurements have been taken and that closures have been calculated and checked by the crew while on site (i.e. level loops).

General Do's & Don'ts

1) Do not accept a digital file from the client or his consultant for layout purposes without getting the hardcopy version of the site plan marked "Issued for Construction."
2) Do not accept a site benchmark from another source without first verifying the elevation by leveling to an independent municipal benchmark.
3) Do not accept the contractor's layout points for layout without proper verification.
4) Do not accept revised site drawings for layout purposes without first verifying in the office that all new values work.
5) Do not work from a set of drawings that are only available in the site trailer.
6) Do not issue or provide benchmark information to a third party in the field.
7) Use published dimensions only – do not scale drawings or interrogate digital files for dimensions without proper checks.
8) Issue a sketch illustrating the building, gridlines, property boundaries, etc. with final computed dimensions to the architect to get confirmation that the siting is correct prior to field layout.
9) Ensure all points that are laid out have redundant ties or check measurements to eliminate blunders.
10) Elevations for temporary benchmarks must be derived from at least two municipal benchmarks.
11) Confirm the source of the vertical datum of the drawings and establish a minimum of two temporary benchmarks (TBM) in close proximity to the site.
12) Run a level loop through the site control (turning on each control point) and close on to a second municipal benchmark (ensures an independent, redundant check).
13) Do not establish temporary benchmarks on objects that can move (including survey monuments, fire hydrants, utility pads, posts and poles) but instead use things that are stable, i.e. the finished floor slab of an adjoining building, a spike in a tree that is outside the construction area.
14) Finally, review all of the layout prior to allowing the contractor to use it – it's your last chance to check, check, check.

The points raised in this article will hopefully serve as a reminder to all survey staff about the importance of proper planning and field procedures as well as the need to institute proper quality control and quality assurance in our daily survey practices. By following these good practice guidelines, our clients will be well served and the chances of being involved in an insurance claim will be minimized.

Reprinted from the Ontario Professional Surveyor, Winter 2005 issue

Noah in 2006

In the year 2006, the Lord came unto Noah, who was now living in the United States, and said, "Once again, the earth has become wicked and over-populated, and I see the end of all flesh before me. Build another Ark and save 2 of every living thing along with a few good humans."

He gave Noah the blueprints, saying, "You have 6 months to build the Ark before I will start the unending rain for 40 days and 40 nights."

Six months later, the Lord looked down and saw Noah weeping in his yard – but no Ark.

"Noah!" He roared, "I'm about to start the rain! Where is the Ark?"

"Forgive me, Lord," begged Noah, "but things have changed. I needed a building permit. I've been arguing with the inspector about the need for a sprinkler system. My neighbors claim that I've violated the neighborhood zoning laws by building the Ark in my yard and exceeding the height limitations and had to go to the Development Appeal Board for a decision.

Then the Department of Transportation demanded a bond be posted for the future costs of moving power lines and other overhead obstructions, to clear the passage for the Ark's move to the sea. I told them that the sea would be coming to us, but they would hear nothing of it.

Getting the wood was another problem. There's a ban on cutting local trees in order to save the spotted owl. I tried to convince the environmentalists that I needed the wood to save the owls – but no go!

When I started gathering the animals, an animal rights group sued me. They insisted that I was confining wild animals against their will. They argued the accommodation was too restrictive, and it was cruel and inhumane to put so many animals in a confined space.

Then the EPA ruled that I couldn't build the Ark until they'd conducted an environmental impact study on your proposed flood.

I'm still trying to resolve a complaint with the Human Rights Commission on how many minorities I'm supposed to hire for my building crew.

Immigration and Naturalization is checking the green card status of most of the people who want to work.

The trade unions say I can't use my sons. They insist I have to hire only Union workers with Ark building experience.

To make matters worse, the IRS seized all my assets claiming I'm trying to leave the country illegally with endangered species. So, forgive me, Lord, but it would take at least 10 years for me to finish this Ark." Suddenly the skies cleared, the sun began to shine and a rainbow stretched across the sky. Noah looked up in wonder and asked, "You mean you're not going to destroy the world?"

"No," said the Lord. "The government beat me to it."

Reprinted from the Treasure State Surveyor (Montana) Oct. 2006

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Off with the Parka and Out with the Speedos!

By Ronald E. Koons, RoSaKo Safety

Summer is fast approaching. Our cold February and almost record snow has led into a quick Spring. It's time to get our crews ready for the type of weather we all like. No coats, no Carharts, no freezing our fingers off; just lots of sun and warm weather. Along with the warm weather comes an entire new set of safety hazards that we must deal with on a daily basis. One of the top items that I see while reviewing injury and illness reports for surveyors relates to exposure to natural poisons and toxins along with allergic reactions. Each individual employee may have different levels of tolerance for any given item and that level can change during their lifetime. Poison ivy is one item that has tremendously changed for me throughout the years. When I was a child and into my early adult years poison ivy didn't seem to bother me at all. In fact, my mother was so allergic to poison ivy that I would pull it out if any creeped into our yard. I never remember any problems until Sandee and I purchased our first house in 1983. There was poison ivy all over the back yard and several places in our side yard. Some of it had made its way into a shrub and the first time I came into contact with the leaves I had a real problem. It became so severe that I had to seek medical treatment several times. I would wear long sleeves and gloves and it still made no difference. I finally found a poison ivy protectant that I use before going where poison ivy may be present. I haven't had a single episode of poison ivy since first using the product. It is a safe bet that all of you have at least one field person who has a problem with poison ivy and you may have several workers. I strongly suggest that you invest in a case of a good pre-contact product that will afford a high level of protection. I have spoken with a number of people who have tried the post exposure cleaners made for poison ivy, sumac etc.. The general consensus is that they aren't very reliable. Preventing contact by installing a barrier seems to be the best method. Along with the protectant your workers must still use some basic common sense. Work boots, socks, and pants (no shorts) are a must. If they are going into an area where there is a high likelihood of poisons they should also wear a long sleeve shirt. If anyone does contract one of the poisons it is important to get treatment as soon as possible. Workers Compensations insurances will cover this type of treatment and it is better to get started on medications early.

While exposure to the sun is a year round item for field crews, it is more of a problem during warm weather when they are wearing less clothing. All exposed skin should have maximum protection. Sun tan lotions use an spf rating. The higher the number the more protection it is supposed to offer. They make sprays, lotions, and moist towelettes. Over exposure to sun is a recognized hazard and under OSHA regulations that would make a business responsible for protecting its workers. There are both traumatic and health implications for sun exposure. Over exposure can cause an immediate concern with sun burn. Don't take a serious sun burn lightly. If a worker has a serious case he or she may need medical treatment. On the health side we all are aware that skin cancer has been directly related to over exposure to the sun's ultraviolet rays. In addition to the skin issues with sun exposure more studies are indicating a direct relationship between sun exposure over a lifetime and diminishing eyesight. Some studies have shown that wearing a good pair of sun glasses that offers protection from the ultraviolet rays will help save your eyesight. Many dark safety glasses will offer this protection from ultraviolet rays as well as protect your employees from flying particles while they are working. Make sure you look at the UV rating of the dark glasses before purchasing. A wide brim hardhat or other caps with a brim will also help keep the sun out of your eyes.

All types of insects start to fly around as the weather gets warmer. Most of them can be controlled by using a good day–long protection. A good product using the maximum level of Deet is most likely going to offer the best protection. I use a product that advertises 10 hour protection. I can truly say that since I have been using this product for over 4 years I am very satisfied. I can put it on once and it generally will last an entire day. It comes in a spray bottle so putting it on is very easy. With Lyme's Disease and the West Nile virus making more headlines each year this is an item that can't be ignored. Every field crew vehicle should be outfitted with the appropriate types of insect repellent. Since these diseases are a recognizable hazard in this industry it is important to offer protection to avoid the hazard. If any employees are known to have allergies to bee or other flying creature stings it is wise to have the proper treatment kits available. Most people who have a known allergy will have their own, but you should discuss this with your employees to make certain they have what is needed. Consult a medical professional if there is any question about what to get or even if it is needed on a per person basis.

Over exposure to sun is a recognized hazard and under OSHA regulations that would make a business responsible for protecting their workers.

Storms and the resultant lightening are another potential hazard that occurs during warmer weather. Field crews need to keep a constantgregorylandsurveying@comcast.net eye on the weather when changes are forecast. If they are in an area with good reception, a small weather radio is a good choice for keeping up with the warnings and alerts. Handheld lightening detectors are now so small they can be mounted on a belt and are very light weight. These can actually give a warning up to 30 miles away that lightening is on the way. Remember that lightening can travel up to 10 miles in a horizontal direction. There can be sunlight above and if a storm is fast approaching the lightening can still strike. Waiting until it starts to rain to take shelter when out in the field is already too late when storms are active.

Take the basic precautions for all field crew workers and you will have more productive crews who appreciate your concern. By the way…for those of you who know me I promise that I won't put on those Speedos!

CALENDAR

June 1, 2007
ISPLS Seminar, Columbus Holiday Inn Conference Center, Columbus, Indiana; "Rule 12 and the 2006 Revisions to the Indiana Survey Standards" Speaker: Gary Kent
(6 CEH Mandatory)
July 11-13, 2007
21st North Anerican Surveying and Mapping Educators Conference, Ferris State University, Big Rapids, Michigan
July 13, 2007
Indiana State Board of Registration for Land Surveyors meeting, Room CC130, Government Center South, Indianapolis
June 16, 2007
ISPLS Board of Directors meeting, Headquarters, 9:00 a.m.
August 31, 2007
ISPLS Seminar, Spring Mill State Park, Mitchell, Indiana, Topic to be announced.
September 13-15, 2007
The Surveyors Historical Society's 2007 Rendezvous will be held at George Washington Birthplace, Virginia, as a joint venture with the National Park Service.
Contact: Roger Woodfill, SHS Administrator, e-mail: shs9@earthlink.net
January 16-18, 2008
56th ISPLS Annual Convention, Adam's Mark Hotel (Airport) , Indianapolis, Indiana, Hosted by Initial Point Chapter and Wabash Valley Chapter.

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