

HOOSIER SURVEYOR



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

VOLUME 29
NUMBER 4
SPRING 2003



AFFILIATED WITH THE
AMERICAN CONGRESS ON
SURVEYING & MAPPING



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Ken Garrison, right, Boggstown, new incoming president of ISPLS, presents the past president's gavel and plaque to outgoing president, Bill Clark, Vincennes, at the recent January 2003 annual ISPLS convention held at the Indianapolis Downtown Hotel.

2003 OFFICERS & DIRECTORS

Greg Garrison - President
7393 W 275 N
Boggstown, IN 46110
RES: (317) 835-7325 BUS: (317) 237-2760

John Stephens - President Elect
979 S. Riverwood Dr.
Wabash, IN 46992
RES: (260) 563-6080 Bus: (260) 435-1414

Frank Ballintyn - Vice President
3203 Julian Drive
New Albany, IN 47150
RES: (812) 948-6060 BUS: (812) 294-4306

Bradley Ott - Secretary
675 N. Main Street
Franklin, IN 46131
RES: (317) 736-0264 BUS: (317) 736-0579

Ed Sweetland - Treasurer
376 S. Arlington Ave.
Indianapolis, IN 46219
RES: (317) 357-9216 BUS: (317) 547-5580

TERM EXPIRES JAN 2004
E. Donald Bengel
73 E. Division Road
Valparaiso, IN 46383
RES: (219) 465-0988 BUS: (219) 462-0690

Bill Clark
2248 S. Walnut Drive
Vincennes, IN 47591
RES: (812) 882-8239 BUS: (812) 888-5865

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

John Updike
3315 Country Park Ln
Fort Wayne, IN 46815
RES: (219) 749-1403 BUS: (219) 496-9699

TERM EXPIRES JAN 2005
Frank Ballintyn - Vice President

Perry Cloyd
15551 N Co. Rd. 170 W
Edinburgh, IN 46124
RES: (812) 526-2227 BUS: (812) 526-6209

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Tony Gregory
7672 West Mill Court
Hobart, IN 46342
RES: (219) 942-6320 BUS: (219) 989-2577

Ed Sweetland - Secretary

Ron Wharry
52 W. Clinton Street
Frankfort, IN 46041
RES: (765) 654-5385 BUS: (765) 654-5910

ADMINISTRATIVE OFFICE
Dianne S. Bennett, Executive Director
55 Monument Circle, Suite 1222
Indianapolis, IN 46204
(317) 687-8859 Fax: (317) 687-5053
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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.

Editorial Advertising Offices
55 Monument Circle, Suite 1222
Indianapolis, IN 46204
Phone: (317) 687-8859 Fax: (317) 687-5053
Web Page: www.ispls.org E-Mail: ISPLS@aol.com

Ken Curtis - Editor
2204 Happy Hollow Rd
W. Lafayette, IN 47906
Phone: (756) 463-7452
E-Mail: KenSurvMap@aol.com

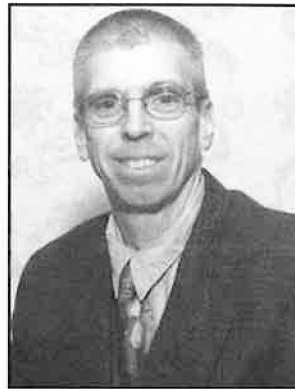


ISPLS BOARD OF DIRECTORS (2003)

l to r, first row, Rich Hudson, Valparaiso; Don Bengel, Valparaiso; Bradley Ott, Franklin; Ron Wharry, Frankfort; Frank Ballintyn, New Albany; John Updike, Fort Wayne; second row: Perry Cloyd, Edinburgh; William Clark, Vincennes; Greg Garrison, Boggstown; Anthony Gregory, Hobart; John Stephens, Wabash; Ed Sweetland, Indianapolis.

PRESIDENT'S THOUGHTS

by Greg Garrison, PLS, Boggs, Indiana



I would like to take this opportunity to publicly recognize a gentleman who has devoted his life to the surveying profession. Professor Ken Curtis has been an educator of surveyors and an advocate for surveying for many years. Professor Curtis taught at Purdue University for forty-four years, and a large number of Indiana surveyors learned their craft in his classroom. In 1991, when the combined engineer and surveyor board was separated into two individual boards, Professor Curtis served on the Board of Registration for Land Surveyors, from that time until 2003, being reappointed several times. Professor Curtis has decided to resign from the board, and his last meeting will be the May 2003 meeting.

Land surveying has been deeply enriched thanks to the tireless efforts of Professor Curtis. Land surveyors, and indeed the general public, owe a debt of gratitude to Professor Curtis for his dedication and hard work promoting and improving the profession of land surveying. Thank you, Professor Curtis!

Trig Star
The Trig Star program, designed to foster the desire to pursue surveying as a career in high school students, is again underway. Several of the local chapters are sponsoring the tests at local high schools. This state winner of the competition is awarded a savings bond, and Vincennes University awards a scholarship for the surveying technology department. Many of the chapters provide awards to the local winners as well. There are a couple of individuals who have come to my attention that are very active in promoting the trig star program. For many years, Roger Woodfill has sponsored this competition, and has given countless exams. This year I have been informed that Richard Ward has set up twenty-two competitions himself. I think we can all learn from these individuals, and certainly others of whom I am unaware, and give back to our profession some of what we have gained. It is very important that we generate interest in our profession; if we don't, at some point we may not have enough people entering our ranks to replace those that are retiring. Please become involved in the program, visit your local schools and job fairs, or participate in any event that will attract bright young students to surveying. ISPLS or your local chapter can help you get started. All it takes is some of your time.

Survey Technician
Bill Clark, Vincennes University, has informed the Board of Directors that the ACSM Survey Technician exams will be available over the internet, through Vincennes University, from various locations throughout the state. All that will be required will be an on-site proctor. Please contact Bill if you have any interest in this program. Internet accessibility should eliminate the barrier of travel to a faraway test site. Test dates would still

be set by ACSM. Technicians are crucial to our profession, and this is one way to give them some recognition and reward for their hard work, and to allow those of us who employ them to better recognize their knowledge and abilities. The information upon which we rely is provided by technicians, and the better trained they are, the better the information we receive. The Survey Technicians Certification Program gives us a tool by which we can recognize and acknowledge their hard work, as well as instill in them the pride of accomplishment.

New Registrants

On Friday, May 16, 2003, at 1:30 p.m., at the Indiana Government Center, twenty new registered land surveyors will take their oaths and receive their certificates. Congratulations to all of our new land surveyors!

Web Site

I would like to thank Chris Marbach for paying the renewal for the ISPLS domain name.

Seminars, Events, etc.

As the summer months quickly approach, we generally get busier, and time gets away from us. Please make note of the events that the local chapters are scheduling and plan to attend as many as possible. Also, there will be continuing education seminars presented. We need to take time to associate with our fellow surveyors for social as well as educational and professional reasons.

Local Surveyors Form Chapter

Local surveyors from Southeastern Indiana counties met Monday, March 3, 2003 to formally organize a local chapter of the Indiana Society of Professional Land Surveyors. The organization will be known as the "Greenville Treaty Chapter" and include members from Ripley, Dearborn, Ohio, Switzerland, Franklin, Decatur, and adjacent counties.

The chapter, formed under the bylaws of the Indiana Society, intends to promote education and communication within surveying and related professions. The meeting was conducted by Ted Darnall, Columbus, and a Board of Directors was elected. Jeff French, Versailles was elected President, Dennis Kraus, Sunman, Vice President, and Rob Seig, Sunman, Secretary/Treasurer.

Members present at the meeting were: Archie Crouch, Rising Sun; Andy Scholle, Osgood; Steve Koehne, Napoleon; Shane Haller, Friendship; Rob Seig, Sunman; Ted Cooley, Batesville; Sue French, Versailles; Jeff French, Versailles; Mark Esposito, Lawrenceburg; Dennis Kraus, Sunman; and Ted Darnall, Columbus.

Membership in the organization is open to anyone with an interest in promoting the land surveying profession. The next chapter meeting will be held at the Osgood Grub Company on Wednesday, June 4, 2003 at 6:30 p.m. slow time, 7:30 p.m. fast time. Persons interested in membership should contact Jeff French at 812-689-5995.

ISPLS BOARD OF DIRECTORS MEETING HIGHLIGHTS

by Dianne Bennett, Executive Director

January 15, 2003

The ISPLS Board of Directors held a meeting on Wednesday, January 15, 2003 at Marriott Downtown Indianapolis. President Clark called the meeting to order at 1:05 p.m. The minutes and treasurers reports were reviewed and approved with revisions.

Staff Activity Report - a written report was submitted for board review. The report is stated under individual topic listed below.

Communication - Membership - The following membership applications were reviewed and approved: Professional Member - Larry VanOsdol, David Stoeppelwerth, John Varner, William Kyler, Kevin Michel and Steven Casterline; Associate - David Boblitt, Richard Hodges, Kevin Human, Mike O'Donnell, Terrell Brandenburg, Jr., Brian Wagner, Jeremy Burns, John Wilson, Thomas Smith, III, Leif Fisher, Terry Miller, Kerry Kingman, and Cory Miller; Student - James Fazekas.

Current ISPLS membership is 867 total members.

Intersociety Relations - The intent of the committee was summarized. It was emphasized that we should keep focused on working with other state societies and other professional organizations.

Foundation - The initial research on the foundation resulted in that a 501C(3) would be too much effort. It was noted that we have funded the CICF account with a \$6,000 deposit.

Publications - Dennis Grumpp reported that Manual #3 update was a success and is available at the convention now.

Hoosier Surveyor - The deadline for the winter issue is January 24th.

Web Page - A year end report was submitted for the annual business meeting by Chris Marbach.

Public Information & Marketing - The primary goal of this committee was a power point presentation. After several discussions over the year it was indicated that one single presentation would not be appropriate for all applications.

Professional Development - Education - The income/expense from the Wabash Valley Chapter's seminar on December 6, 2002 was submitted.

An email was received from the Hoosier Hills chapter stating that they are planning a seminar in April on "new changes on soil erosion control."

It was noted that sessions are getting fewer attendees. Having a technician session parallel with the professional sessions was mentioned.

It was noted that our review sessions for the LS/SIT were getting good feedback.

Doug Herendeen presented a contract with the Marriott East for the 2005 & 2006 convention. Discussion followed regarding the National 2006 convention in Louisville, KY. We will hold off on signing the 2006 convention for now. A motion was made and passed to approve the contracts.

Bob Church will present a 15 minute presentation regarding the Abe Lincoln statue at the business meeting.

Scholarship - ISPLS has a P.U. and V.U. scholarship. It was mentioned that we may want to consider a scholarship(s) for son/daughter of an ISPLS member leaving high school for a college career in land surveying.

The P.U. scholarship proposal #3 was reviewed. After discussion it was approved to accept the proposal.

The committee met on November 15, 2002 and conducted interviews of the students from Purdue University. The committee recommended Matthew M. Knoy be awarded \$1500 and Luke A. Jahn be awarded \$1500.

Honors & Awards - A sample of the 40 year member lapel pins was provided. The 'old timers' video will be sent to the member also.

Technicians - The report was submitted in the convention program book.

Trig-Star - Tony Gregory volunteered to chair this committee for next year. We have had several active members across the state working on this.

Government Affairs - Legislation - A request to buy 18 legislative directories was submitted. A sample of the directory was reviewed. The information is available on-line. John Gregg is no longer the speaker, Pat Bauer out of Fort Wayne is now the speaker.

Board of Registration - The board of registration web site has been improved to look up licensee information easier.

HARN/GIS Monumentation - There has been no new updates since the last BOD meeting. HARN update is coming late this spring.

County Surveyors - Road School is planning to have a HARN update. It was noted that counties have more flexibility and options this time. Road School is March 26th at Purdue and all day there are county surveyors meetings.

The Storm Water Utility bill is sponsored by Sen. Garton.

NSPS Governor/Great Lakes Council - The Great Lakes continues to expand the number of member states. Out of 14 member, usually 13 or 14 attend the meetings. It was noted that it is good that ISPLS supports this council.

Standards - On the standards agenda are proposals to give the BOR authority to deal with unlicensed practice, defining 'theory of location', section corner monumentation and other issues. It was noted that the county surveyors group should be involved with this committee.

Internal Affairs - Professional Practice - It was recommended a task force be formed for this committee.

By Laws - Don Bengel reported on the status of by-laws change regarding chapters and members.

Planning & Goals - The following were discussed: Bicentennial Celebration in October, Lewis & Clark commemoration.

Nominations - The following were elected to the board of directors: Anthony Gregory, Ed Sweetland and Ron Wharry.

Chapters - Northwest Chapter - Alex Fabian is new President; Eric Banschbach, President Elect; Richard Hudson Secretary/Treasurer; Bill Rensberger and Dave Croft and Russell Wade directors.

Initial Point Chapter - Bill Pettitt is new president.

Southwest Chapter - Will be hosting 2004 Convention.

Purdue Student Chapter - Is asking for a financial contribution to help send students to the conventions. A motion was made

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MINUTES

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and passed to donate \$500 to PU Student Chapter. Discussion followed to send a letter with the check requesting a report from the students after the convention(s) are attended.

Discussion regarding a donation to VU students even though they have not specifically requested any.

VU Student Chapter - There are 13 students at the ISPLS Convention.

Central Indiana Chapter - Will meet in March.

Tecumseh Chapter - The spouses have been active.

Wabash - A report submitted on their December seminar.

Northeast Chapter submitted its report in the convention program.

Old Business - A letter was received from NSPS regarding membership rates within Indiana. A motion was made and passed to join NSPS' initiative to give member rates to any NSPS member for any ISPLS function.

The Michigan Museum's \$4200 request for historic Indiana compass is within \$500-\$600. A motion was made and passed to make up the difference so that all funds will have come from Indiana.

New Business - Doug Herendeen passed out a handout regarding a rebuilt QMS 1600 printer. A motion was made and passed to purchase the printer.

Frank Ballintyn again thanked the Central Indiana Chapter for their support with the picnic.

March 8, 2003

The ISPLS Board of Directors held a meeting on Saturday, March 8, 2003 at headquarters. President Garrison called the meeting to order at 10:02 a.m. The minutes and treasurers reports were reviewed and approved with revisions.

Staff Activity Report - a written report was submitted for board review. The report is stated under individual topic listed below.

Officers activity report - Rich Hudson attended the Illinois convention in Springfield at the Crown Plaza. They had 1033 registered attendees. They have just started continuing education this year.

Perry Cloyd went to Kentucky and Ohio's conventions. Ohio was set up a lot like Illinois. He thought their attendance was about half of ours. He attended a GPS seminar at the Kentucky conference. He was disappointed at how surveyors were presented regarding less accurate GPS mapping capabilities. He noted that they have a good exhibit hall.

Communications - Membership - The following membership applications were reviewed and approved: Associate - Jack Johnson, Jr., Susan French, and Jason Spain; Affiliate - John Susong.

Current ISPLS membership 879 total members.

Currently in the process of working on the 2003 roster.

Publications - Dennis Grumpp is in the process of preparing a maintenance plan for Manual #3, and will make a formal presentation at a future BOD meeting. He is already gathering information for the next update. Gary Kent, BOR liaison will present a request to add the Manual #3 to their recommended study list. The question was asked about BLM updates and Manual #1 updates. The committee would entertain volunteers

for help, as it is a job to update these manuals.

We sold 29 of manual #3 (hard copy) and 29 of manual #3 (CD). Out of those 29 sold, 17 purchased both. Twelve purchased hard copy and 12 purchased the CD.

There was discussion on increasing the publication fees. A motion was made and passed to double fees on ISPLS publications to non-members over members and to revisit this annually.

The price for the manuals are:

Member Manual #1	\$15	Non Member	\$30
Member Manual #2	\$15	Non Member	\$30
Member (Hard copy) #3	\$80	Non Member	\$160
Member (CD) #3	\$45	Non Member	\$90
Member Set #3	\$110	Non Member	\$220
Member Manual #6	\$15	Non Member	\$30
Early Indiana Trails	\$7.95	Non Member	\$15.90

Steven Johnson has informed us that Jim Swift (MS student) was going to be helping him update Manual #2 this summer and fall.

Walker & Company has sent ISPLS a complimentary copy of the book "Measuring America".

Hoosier Surveyor - The winter issue went in the mail on Friday, Feb. 28th.

Public Information & Marketing - There was discussion on marketing items for ISPLS, such as shirts, stickers, etc.

Professional Development - Education - The two April seminars being presented on April 11th & April 25th, "A Case Study in Theory of Location & Boundary Resolution with Rule 12", by Tony Gregory were sent to the BOR and were approved. ISPLS BOD have also approved these two seminars. The seminar being presented by John McNamara on March 31st and April 1st were also approved by the ISPLS BOD.

There was much discussion on fee increased for ISPLS seminars. ISPLS has not raised its seminar fees for 11 years and the expenses associated with the seminars have increased. A motion was made and passed to increase the members fees by \$15 and non-members fees by \$30 and then revisit this each year at the annual meeting. Seminar fees will be \$110 for a member and \$165 for a non-member.

It was noted that the issue of rate increases regarding other areas also needs to be looked at; such as conferences, manuals, and membership rates.

Scholarships - The Purdue scholarship has been awarded.

Honors & Awards - The 40 year pins have been sent out.

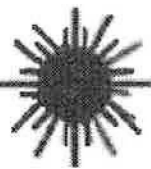
Trig-Star - The chairman from the chapters for this program are as follows: Joe Pietrzak/St Joe Chapter; Aaron Springer/Northeast Chapter; Dick Ward/Wabash Chapter; Bob Gross/Tecumseh Chapter; Don West/Central Chapter; Tony Gregory/Northwest Chapter; Nathan Gray/Hoosier Hills Chapter; Frank Ballintyn/Initial Point Chapter; Scott Huber/Southwest Chapter; Roger Woodfill/ Greenville Treaty Chapter. We anticipate an increase in participating schools this year.

A motion was made and passed to purchase a \$1000 savings bond to present to the state winner of the Trig Star competition and

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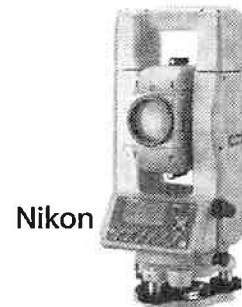
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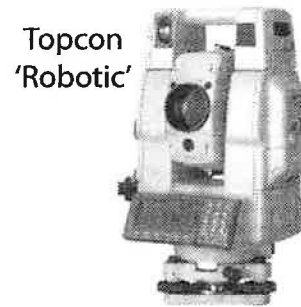
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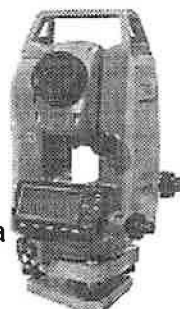
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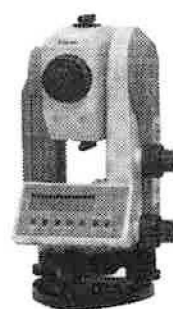
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Minutes

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to continue to provide this award in subsequent years.

Licensing Exam Review - Ed Sweetland is putting together the LS/SIT Review on April 4th & 5th at IUPUFW Engineering Technology Building, Fort Wayne. Greg, Ed, and Dianne will meet to decide on the fee to charge.

Government Affairs - Legislation - John Stephens reported on HB 1741 regarding protection of HARN points.

Board of Registration - The new LS certificate presentation will be May 16th. Their was discussion regarding the signature requirement on the continuing education certificates.

Also stated was that you can now do a search for licensee on the state web site. You can pull up the entire list of licensed surveyors. The web address is: www.in.gov/pla.

County Surveyors - John Stephens reported that they have been bombarded with legislation; wetlands, IDEM confrontation, Lake County, Stormwater Utility. Road School is March 25 & 26th.

Chapter Reports - Northwest Chapter - Bill Tanke was presented with the 40 year pin. The next chapter meeting is Thursday at the PU Calumet Challenger Center.

Northeast Chapter - John Updike read a written report which is summarized as follows: February 20, 2003, President Aaron Springer shared his experience of surveying in Texas helping recover Space Shuttle Columbia material. The scholarship committee recommended Michael Young for a \$500 scholarship. LS/SIT Review will be April 4 and 5 at IPFW. Al Frisinger, Allen County Surveyor gave an update about the County GIS and Section Corner Perpetuation programs. John Updike gave an ISPLS state update. The chapter had discussion on sponsoring a mandatory seminar and renaming the Northeast Chapter Scholarship.

Central Indiana Chapter held a BOD meeting last month. Their next meeting will be at ACE next Thursday. Their meeting dates will be listed on the CIC website soon. They are planning a Christmas dinner with Dave Best doing his Thomas Jefferson presentation.

Hoosier Hills Chapter had their annual banquet. They are working on a seminar in April.

Southwest Chapter will be meeting this Tuesday.

Purdue University Student Chapter - Brad Eckerle reported that six members were going to the ACSM conference. He thanked the board for the \$500 to help send students to the convention(s). The student banquet will be on April 5th. The chapter has 28 members and held six meetings last year. The new officers are: President Luke Jahn; Vice President Heath Titzer, Treasurer Matthew Knoy and Secretary Christiana Hoy.

Old Business - There was discussion regarding section corner perpetuation and coordination with the County Surveyors and ISPLS GPS committee.

New Business - ISPLS received a special alert letter regarding a surveyor who got shot. Discussion about how to get this information out to membership followed. It was decided that the article would be put on ISPLS web site for members to read.

NATIONAL COUNCIL OF EXAMINERS FOR ENGINEERING & SURVEYING

In May 2003, the NCEES will distribute over 5,000 questionnaires as part of a land surveying Professional Activities and Knowledge Survey (PAKS). The questionnaire asks recipients to rate the importance of statements describing tasks and knowledge required of a newly licensed land surveyor. Those who complete the survey will also have the opportunity to recommend examination content. A special NCEES committee will use the survey results to develop new specifications for the content of the Fundamentals and the Principles and Practice of Land Surveying examinations. The examinations with updated content are scheduled to be administered in April 2005. Only 10 percent of licensed land surveyors in the United States will receive the questionnaire. It is essential to the validity of this study as many questionnaires as possible are completed and returned by those who receive them.

This year's PAKS comes at a crucial time. At the August 2003 NCEES Annual Meeting, the delegate body is expected to approve modifications to the Model Law for Surveying. The changes will result in a Model Law that includes the practice of photogrammetry and the use of Geographical Information Systems as tools to perform professional services that are included in the definition of land surveying. As a result, NCEES will invite individuals such as photogrammetrists and GIS specialists as well as licensed surveyors to participate in this PAKS. Their input will play an important role in the future of surveying licensure examinations for the next 5-7 years. Full participation from all parties is needed to obtain a complete articulation of the important tasks and knowledge of surveying under the proposed new definition of surveying.

The PAKS is an essential part of updating the Fundamentals and the Principles and Practice of Land Surveying examinations. The PAKS enables NCEES volunteers working on land surveying examinations to have information on the important continuing and emerging knowledge needed in modern practice. NCEES uses rosters provided by its member licensing boards and the American Congress on Surveying and Mapping to solicit participation from a cross-section of professionals across the United States, aiming for diversity in geography, practice, age, gender, and ethnicity.

The National Council of Examiners for Engineering and Surveying develops licensing examinations for the engineering and land surveying professions. These examinations are used by engineering and land surveying licensing boards across the U.S. as part of their candidate assessment process. NCEES provides examination scoring services and offers exam administration services to all U.S. engineering and land surveying licensing boards. NCEES headquarters is located in Clemson, S.C.

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INDIANA'S INITIAL POINT - Part II

by Kenneth W. Anderson, PLS, Bedford, Indiana

In the first installment I spoke of the original government surveyors and the work they did to establish the point in 1805. Once the point was established, and the lands were opened to surveys by the various Indian Treaties, the surveyors proceeded northerly for the next thirty years or so until the lands within the state were surveyed. We can only imagine what their lives were like as they continued on with the survey work.

Right at the point itself the land was probably unchanged for the first two decades after Buckingham set the wood post. It is unknown what settlers looked at the land by the point as they traveled into the territory and began looking for places to settle. Since the land in other places seemed better suited for farming purposes, much of the hill land in southern Indiana was not settled until the other lands were taken. So, the fact that the point is in a hilly drainage and covered with trees helped to save it from destruction during the settlement period and also later on as the area was occupied by land owners.

The Orange County Tract Book lists the date of entry for the lands adjacent to the Initial Point. The data in the book normally recites the name of the purchaser, description of the tract, size in acres, date of entry and, at times, the certificate number. In this county, the recording data for the original patent, which is entered at a later date, can be found on a few scattered parcels. Also, some times the written information in tract books is very faint or the script hard to read, however the Orange County book is very legible and the script is easy to read.

If you were to look at the Tract Book you would find the following entries for the lands that bound the Initial Point:

First — S ½ Sec 31, T 1 N, R 1 E, Sept 14, 1821, 314 acres to Joel Cloud

Second — NW ¼ Sec 6, T 1 S, R 1 E, Sept 30, 1832, 153.40 acres to David Cloud

Third — N ½ NE ¼ Sec 1, T 1 S, R 1 W, Feb 26, 1833, 78.09 acres to John McKinney Tarr

Fourth — SE ¼ SE ¼ Sec 36, T 1 N, R 1 W, Apr 6, 1839, 40 acres to Dorey C. Hammon

In addition to the above parcels, both the Cloud and Tarr families filed entries for other parcels in Sections One, Six and Thirty-One. As time went on the Tarr family became the dominant land owners in the area and that continued for about a hundred years. I do not know if the two families were related but it would not surprise me if they were. It would be interesting to know if the four land owners above were advised by the government workers at the Land Office that their land was adjacent to the Initial Point for Indiana. I did not look up the actual Patent dates for the parcels, but most commonly it was a few years after the entry dates. Much of the land in Orange County has dates of entry from 1820 to 1850, which is not particularly early, since the townships were surveyed in 1805 or shortly thereafter.

The land surrounding the point in 1821 would have most likely been covered with a mature forest, by what is commonly referred to as a Beech, Oak, Hickory forest. If there were any openings, either natural or man made, they were limited in scope. Since the Buffalo Trace was less than a mile away it is likely that there could have been clearings along it in some areas. Whatever the condition of the land, it had to have been a mighty physical task that the settlers undertook when they started to create farms out of the wilderness, and the parcels by the point were no different.

From the time of entry in 1821 and during the 1830's, there is a thirty year period until the first of the County Surveys by the Initial Point is recorded in the Orange County Survey Book. It was in December of 1866 that J. H. Lindsey, Surveyor for Orange County did a survey of Section 31, Township 1 North, Range 1 East, 2nd P.M. It can be found in Book A, Page 120 and the notation reads, "Lawful notice having been given at which time the following corners were established, as in the diagram below." Lindsey's survey then lists fourteen corners as being set, primarily in the north half of Section 31. He made notes that "Gov't Trees" were found at the northwest and southeast section corners for Section 31, and the east and west one-quarter corners were set at "average distance or average point". The stone at the Initial Point is recited as, "At fig. 7 Stone marked S31 (Town Corner)", with no mention being made as to what he found at the site. It does raise the question of whether Buckingham's wood post or the bearing trees were still there or if Lindsey determined the location by other means. On the same page there is a separate notation of a survey by J. Frazer, Orange County Surveyor, Feb 1869, and notes for the northeast and southeast corners of the northwest quarter of the northwest quarter and the east quarter corner of Section 31. It should be pointed out that the record does not say directly that Lindsey set the "stone". My belief is that he set the stone during his survey since it is marked S31 and his survey was for Section 31. But, it could have been that the stone was there before, set by some unknown person and/or surveyor, and he used it as he found it. There are gaps in the information that I found available.

The data in Book A, which is a fairly large ledger book, is not the original drawing or notes. The county re-copied the "original book" some years ago. It is now typewritten, which it most assuredly would not have been in 1866. Hopefully all the numbers and letters were carefully checked for correctness.

There are two other references found in the county survey books for the Initial Point. In 1877 John McDonald did some work in the east part of Section 36 T1N, R1W and the west part of Section 1 T1S, R1W. His note at the Initial Point is simply, "Original Corner". Nine years later, in 1886, Andrew M. Peter worked on the east west centerline for Section 6 and presumably ran the west line (meridian line) of the section. His notes say that a stone by a former surveyor was found at the Initial Point.

These three surveys, Lindsey, McDonald and Peter are the only references found in the county survey books about the Initial Point. None of them say much, nor do they

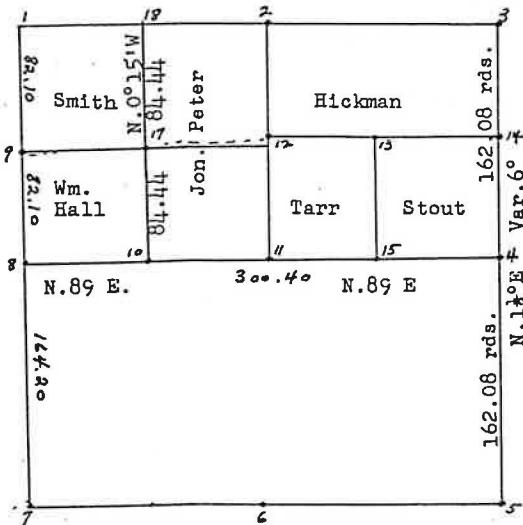
...continued Page 11

ORANGE COUNTY, INDIANA

County Survey Book A, page 120

✓ (Section 31 Town 1 N. and Range 1 E.)

Surveyed December 1866. Lawful Notice having been given at which time the following corners were established, as in the diagram below.



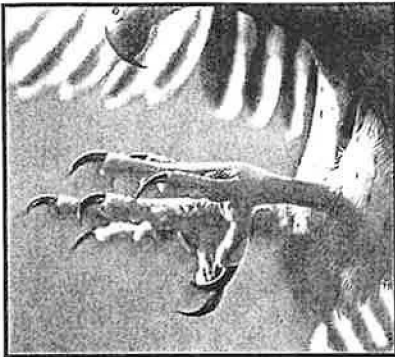
At Fig	1	Stone Set by Gov't Trees
"	2	" " " " " " " "
"	3	" " " " " " " "
"	4	" " " " " " " "
"	5	" " " " " " " "
"	6	" " " " " " " "
"	7	" " " " " " " "
"	8	" " " " " " " "
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"	10	" " " " " " " "
"	11	" " " " " " " "
"	12	" " " " " " " "
"	13	" " " " " " " "
"	14	" " " " " " " "
"	15	" " " " " " " "

J. H. Lindsey Surv. O.C.

Resurveyed Feb. 13th 1869, as seen on preceeding diagram.

At Fig.	4	W. Oak 18 N. 22½ E. 18
"	"	Hickory 4 N. 69 W. 17
"	"	17 Stone
"	"	18 W. Oak N. 42 E. 22½

J. Frazer Surveyor O.C.



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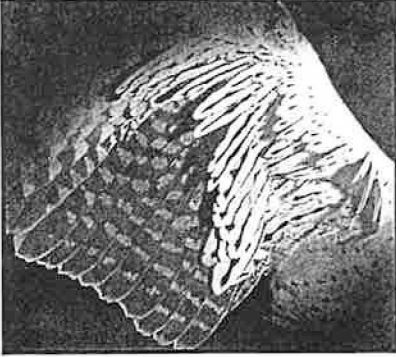
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Indiana Initial Point ...continued from Page 9

indicate what was found of Buckingham's work. The base facts are that in 1866 Lindsey, presumably, set the stone, McDonald found it in 1877 and Peter found it in 1886. While it was Lindsey that most likely set the stone at the point, it is the McDonald surveys, in my opinion, that provide the greatest support for the position as it exists today.

One other piece of information in the Orange County Survey book is worthy of being mentioned. In Book 2 there is a sketch that covers some of the north portion of Section 6 and the south portion of Section 31. It shows the partition of land into three parts, according to value, and going to three members of the Tarr family that I mentioned above. It is obviously a settlement for an estate. The work was done by C.H. Pinnick, County Surveyor, but there are no bearings and no distances. Parts of it show acreage figures, but not all. The number 1 portion is the area directly east of the Initial Point. The deeds for the various parcels contain metes and bounds descriptions and are not necessarily divided along the same lines as the aliquot part descriptions. These deeds and the fact that there is a east west shortage of three hundred and some feet along the section line between sections six and thirty-one has caused problems in the area for both land owners and surveyors.

After Peter's 1886 survey there is nothing of record that indicates that any survey work was done in the vicinity of the Initial Point for about fifty years. The farms that had land adjacent to the point periodically changed hands but, other than the normal farm activities and some periodic logging of some timber, there most likely was little activity right at the point itself. It is fair to say that the Tarr family played a roll in protecting the stone at the point over a long period. From the first entry by John McKinney Tarr in 1833 until sometime in the 1960's, there were Tarr family members that owned land at or near the point.

With the arrival of the 1930's several things happened that changed the land use and ownership by the point. The farms were hill farms and, at best, were marginal. It would have been difficult for anyone to make much of profit on them. When the thirties brought both the depression and drought, the farmers had a most difficult time, so many opted to go to other occupations. This also was the beginning of the change of land use from agricultural fields and pasture lands to more of timber production. At the same time the Enabling Legislation for the Hoosier National Forest had been passed and the beginnings for the forest land base were started. This allowed the federal government to begin purchasing land at the same time that many of the farm people were looking for a way out of their predicament. It was many years later that the federal government actually acquired the land around the Initial Point, but there were some lands west of the area that were acquired fairly early after the beginnings of the forest. One thing that did happen, which was surveying oriented, was that the CCC's ran cruising crews over much of the area within the forest boundaries. Part of the job was to look for and make notes on section corners. The information was written down on a government form which was yellow in color and had preprinted information on both sides. Later on, they were commonly referred to as "CCC yellow slips". One of these slips was completed for the Initial Point in the mid 1930's. In addition to

other changes the 1930's brought the first widespread aerial photography. Since then there has been photography taken every ten to fifteen years or so, and it is possible to see the changes in land use over that period of time. The present scene is a wooded environment with a lot more trees now than there were seventy years ago.

The stream that is just south of the stone at the Initial Point is considerably larger now than it was in 1805. Over the years the erosion has edged closer to the stone. Had it not been for the change in land use, from subsistence agriculture back to forest land, the erosion would have likely washed the stone away many years ago. The drainage area above the stone is about 250 acres and presently is more than ninety percent covered with trees and brush. This has reduced the rate of erosion considerably since the thirty's. While neither Mansfield or Buckingham were likely concerned about erosion at the time, they did get the point where it was possible for a monument to physically survive for years and years.

In this period of about one hundred forty years, 1805 to WW II, the surveying activities ranged from being very active to nearly non-existent. The Original Government Surveys of the townships by the point were done in the 1804-1807 period. Most of the County Surveys were in the 1860-1900 time period. The 1930's brought a brief period of activity with the CCC's. During the periods between there was little or no surveying activity, or at least any where the records have survived over the years. In my next article I will point out the activities by the point in the last half of the 1900's.

FOOTNOTES:

Forest Enabling Legislation - The Hoosier National Forest was started in 1935. The State of Indiana legislature passed the Enabling Legislation which allowed the federal government to create and administer a National Forest in this part of Indiana.

CCC - Civilian Conservation Corps - This was one of the government programs during the depression years in the 1930's. There were several camps in Indiana, some of which were in the southern part of the state where the participants (mostly young men) lived. The camps were run by the Army, but the projects they worked on were usually under the direction of civilian employees. It is of interest to note that one of our most elderly surveyors, Nelson Prall of Bedford, IN., worked in one of the camps in 1935. His name shows up on several of the yellow slips that recorded the corner information and also on a few surviving maps of roads and site plans for buildings that he worked on during that period.

Orange County Survey Books: The survey books from the 1800's are in fairly good shape and appear to be complete in information. The survey office has a ledger with the Original Government field notes (hand copied from ?), four survey books and one larger plat book with some entries from the first part of the 1900's. It is possible to find some corner stones without a record in the county but it is not common. Therefore, I believe the records are intact and in remarkably good condition, when compared to some of the other adjacent counties. Because of this I believe we have the complete record of what County Survey work was done in the Initial Point area during the 1800's.

ISPLS 51st Annual Convention Highlights



Prof. Art Haase, left, Vincennes, receives the annual Polaris Award from ISPLS President Bill Clark.

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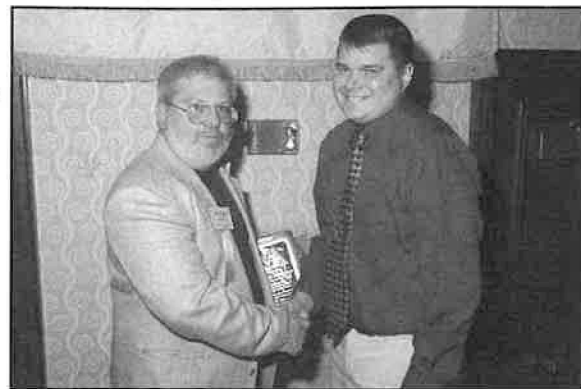
John Stephens, right, Wabash, receives a President's Award from ISPLS President Bill Clark.



Mark Isaacs, right, Brownstown, Scholarship Comm. Chair, presents Luke Jahn, Jasper, with Purdue's John McEntyre Scholarship Award.



Eric Rider, right, Sellersburg, receives the Vincennes University Peggy Archer Memorial Scholarship Award.



Ed Sweetland, right, Indianapolis, receives a President's Award from ISPLS President Bill Clark.



Gary Kent, left, Zionsville, receives a President's Award from ISPLS President Bill Clark.



Matthew Knoy, left, Bloomington, shares the John McEntyre Scholarship Award.



Robert Church, left, IRLSA executive director, congratulates Bryan Catlin, Clayton, who had the winning raffle ticket.

Program Highlights



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& Global Positioning System
Dr. James Reilly



Rule 12 - The Next Step
Ross Holloway



Accepting Evidence
& Being a Professional
Dennis Mouland



Flood Plain Development
& Boundary Disputes
Wendy Lathrop



Indiana's Wetlands
Eric Ellingson



Right-of-Way Engineering
Ronald Raney



Stormwater Regulations
Lori Gates



Railroad Surveying & Safety
Michael Marlowe



Safety Programs for Surveyors
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Alan Dunn



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Dan Pusey, right, W. Lafayette, presents one of the spouse's fund-raising baskets to our Exec Dir. Dianne Bennett



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Thursday night was "Casino Night"

Several other speakers contributed greatly to the program but are not pictured: Gary Kent, Al McConahay, Douglas Wolf, Randy Braun, Thomas Ziegler, and Brad Lee.



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How Close is "Close Enough"?

Donald A. Wilson, LLS, PLS, RPF Land Boundary Consultant
Newfields, New Hampshire

I have been reading, with great interest I might add, Bob Todd's recent articles in The TBM. One of them, Appreciation For a Rewarding Vocation, was especially interesting for a couple of reasons. Bob spoke of his association with Gerry Hyde, a treasured one indeed and a man for whom I too have great admiration. Gerry was a true leader in the profession in this state, one of a very few at that time who were active in the national organization to the point of presenting professional papers, and who authored several valuable pieces of work. The other comment in this article that I was particularly taken with was Gerry's take on some work being "close enough." I have heard it said that "close only counts in horseshoes," and with atomic bombs, of course. In today's practice with satellite technology, land records improvement (well, at least some of it is an improvement, but not always what we would like to think it is), and high-powered instrumentation for measuring, computing, and drafting, it might be well to revisit the perspective that we have so often referred to as precision vs. accuracy. Perhaps that can give us some insight into when something might be "close enough," and still be acceptable when it comes to land measurement.

I remember talking with, and many times listening to, those surveyors we tend to call "old-timers," and hearing their philosophies on how land surveying should be done. People like Heman Chase, Henry Sipe, and others from most of the eastern states way too numerous to mention, frequently talked about (even presented papers and wrote books on) compass surveying, all the while emphasizing accuracy being the important consideration as opposed to the precision. Perhaps the often-quoted A.C. Mulford (1912) said it best in his Boundaries and Landmarks:

...when it comes to a question of the stability of property and the peace of the community, it is far more important to have a somewhat faulty measurement of the spot where the line truly exists than it is to have an extremely accurate measurement of the place where the line does not exist at all.

The courts have the final say in matters such as these, and the courts have laid down succinct directions and guidelines as to how a survey, or a resurvey, should be performed. Most of it is not lengthy, or complex; perhaps we believe it is not detailed enough or technical enough to do the job in today's world. If we read it once gain, only this time think about it a little, perhaps we can decide when "close enough" is in fact, acceptable. Sufficiency of a description. The definition of a legally sufficient real-property description is one that can be located on the ground by a surveyor [from Rivers v. Lozeau, Fla. App. 5 Distr., 539 So.2d 1147 (Florida, 1989)]. Where problems arise is in the interpretation of the descriptions; sometimes they are just "close," or at least they seem to be only close by our analysis. Our analysis tends to consist of several questions: Does it fit? Does it close? Does it make sense? Do I understand the words? The only test that needs to be applied for legal sufficiency is whether is possible for a competent surveyor to locate the description on the ground. The chief difference between those surveyors who are expert at boundary determination and those individuals who are not (including some

surveyors and most engineers) is that in evaluating descriptions of land, the nonexperts pay most attention to the numbers, while the experts pay most attention to the words [from Joel Leininger, Institutes of Boundary Retracement, Part IV]. Part of the problem arises, I am certain, because the reader sometimes forgets, or ignores, the basic rule: documents are to be construed by gathering all parts of the instrument giving each word its due force, read in the light of existing conditions and circumstances [from Perry v. Buswell, 113 Me.399 (1915)]. Ancient deeds, upon which many of our current descriptions are based, are to be construed in light of the then use of properties conveyed and adjacent land, and cannot be cut down by vagueness in subsequent conveyances [from Harvey v. Inhabitants of Sandwich, 256 Mass. 379 (1926)]. Perhaps another contributing factor by some is attempting to fit the land to the deed rather than applying the deed to land [from Smart v. Huckins, 82 N.H. 342 (1926)]. And by the way, deeds aren't necessarily supposed to locate the land anyway, they are only supposed to furnish the means for identification [from City of North Mankato v. Carlstrom, 212 Minn. 32 (1942)]. That tells me that for a description to be adequate, it only needs to be "close".

Purpose of a resurvey

The purpose of a survey of land is to locate and mark upon the ground the boundaries of the parcel of land evidenced by the description in a particular deed. The purpose of a resurvey is to determine where the footsteps of the original surveyor were located, that is, to restore the original surveyor's lines in the same position as they were originally marked. The concept of "footsteps" is one of determining where the evidence of the original survey is located [from Brown, Robillard & Wilson, (1995)].

Court discussion on how a survey should be done

A surveyor can be retained to locate on the ground a boundary line which has theretofore been established. When he does this, he "traces the footsteps" of the "original surveyor" in locating existing boundaries. Correctly stated, this is a "retracement" survey, not a resurvey, and in performing this function, the second and each succeeding surveyor is a "following" or "tracing" surveyor and his sole duty, function and power is to locate on the ground the boundaries' corners and boundary line or lines established by the original survey; he cannot establish a new corner or new line terminal point, nor may he correct errors of the original surveyor. The following surveyor, rather than being the creator of the boundary line, is only its discoverer and is only that when he correctly locates it (emphasis added) [from Rivers v. Lozeau 539 So.2d 1147 (1989)].

Courses and distances are among the most unreliable calls, yet we put so much emphasis on the precision, pride in our equipment and our measurements, only to find out they are "unreliable." Before courses and distances can determine a boundary, all means for ascertaining the location of lost monuments must be first exhausted [from Myrick v. Peet 180 P.574 (1919)].

...continued page 21

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The Indiana Michigan Boundary

John McNamara, L.S., P.E.
St. Joseph County Surveyor, South Bend, IN

The Indiana-Michigan boundary was surveyed in 1827 by Eleazer P. Kendrick, with mile posts set along its entire 105 mile length. This was 11 years after the U.S. Congress approved the current border as part of the enabling legislation for Indiana's admission into the Union in 1816.

In 1785, the Continental Congress needed to deal with two issues in the western lands. They were the disposal of land and governance. The disposal issue was settled by the Act of May 20, 1785, better known as the Land Ordinance of 1785.¹ The Land Ordinance of 1785 established the rectangular survey system used in the United States today.

The governance issue was finalized by the Act of July 13, 1787, better known as the Northwest Ordinance. It defined the future divisions of the Northwest Territory, the three stages of passage to statehood, and a statement of rights guaranteed to settlers of the region.

The right of statehood was guaranteed "whenever any of the said states shall have sixty thousand free inhabitants therein..." A state was at first governed by appointed officials, progressing to partial self-government and non-voting Congressional representation when it had a population of 5,000 free adult males. The personal rights guaranteed, were those traditionally held by Englishmen—including unlawful restraint by the state, trial by jury, security of property, and religious freedom. Slavery was also prohibited. Education was advocated, as a section of land was reserved for a school in the Land Ordinance of 1785.¹

Settlers began moving into the Northwest Territory ignoring and over-running Indian treaty lines. The Indians resisted and a series of fights and battles took place. President Washington appointed General Anthony Wayne to take command in 1792. The troops under General Wayne fought and decisively defeated the Indians in 1794 at the Battle of Fallen Timbers, south of Fort Miamis (near present day Toledo). The Indians ceded nearly all of Ohio to the United States in 1795 at the Treaty of Greenville.

With no barriers remaining, settlers poured into Ohio and beyond. The Northwest Territory population grew to over 5,000 free adult males by 1798 making it eligible for advancement to the second stage to statehood under the Northwest Ordinance.

Ohio was admitted to statehood by the Act of November 29, 1802. Edward Tiffin, a medical doctor elected the first governor in 1803, was to become Surveyor General of Ohio and the Territories of Indiana, Michigan, Illinois, and Missouri in 1814.

The Enabling Act for Ohio also separated the remaining northerly part of the Northwest Territory north of the Ordinance Line and attached it to Indiana Territory which was the name given to all the remaining part of the Old Northwest Territory.¹

On February 3, 1809, the Illinois Territory was organized out of Indiana Territory. In 1811 the Indiana territorial legislature petitioned Congress for statehood leading to a resolution March 31, 1812, to do so when the population met the requirements.²

Indiana conducted a census in 1815 which showed a population of 63,897 and presented a formal petition for admission on December 28, 1815.² On January 5, 1816, the House committee

reported an enabling bill for Indiana with the north boundary line to be the Ordinance Line. The Ordinance Line surveyed by Wm Harris in 1817, was a direct line running from the southerly extreme of Lake Michigan to the most northerly cape of the Miami Bay of Lake Erie. The bill was amended and finally on April 4th the north boundary was defined as "an east and west line drawn through a point ten miles north of the southern extreme of Lake Michigan."³

For ten years the north boundary of Indiana received no attention.² There was much activity on both sides of the line to acquire lands from the Indians. Two treaties in 1821 and 1826 (Chicago and Mississinewa) ceded the 10 mile strip between the Ordinance Line and the North boundary of Indiana.

The Act of March 2, 1827 authorized that the Surveyor General have the north boundary line of Indiana surveyed. Surveyor Tiffin contracted with Eleazer P. Kendrick as Deputy Surveyor to perform this survey.

Eleazer Kendrick is listed as a member of the 1821 staff for Edward Tiffin, Surveyor General. He remained in that position until the fall of 1827, being forced out to make room for Tiffin's son-in-law. At that time Kendrick was given the contract to survey the Michigan-Indiana State Line, a job that took him six weeks.⁶

The first thing that Kendrick did was to traverse northeasterly along the shore of Lake Michigan from the beginning point of the Wm. Harris survey of 1871 (the Ordinance Line). The following are comments from the beginning of Kendrick's notes:

"October 8, 1827, commenced at the southern extremity of Lake Michigan established by Wm. Harris in June 1817, which had it's bearings as follows: an Aspen 9 inches in dia., S56W, 200 lks. and an Aspen 12 inches in dia., S42E, 184 lks."

"The Lake coast so far as I traverse it is a continual chain of hills formed of beautiful white sand in most places very high and little or no vegetation. Back of these sand hills it is generally swamp and marsh, therefore there are but few places that the Lake can be approached without difficulty. No harbor or islands are to be seen."

"From commencement at low water mark ran East 2.50 chains to a Pine tree 10 inches in dia. on top of first bank. Which is marked on N. side M.L. and on south side I.L. and from which a Pine 14 inches in dia. S37W, 123 lks., a Pine 15 inches in dia., S11W, 44 lks., a Cedar 8 inches in dia., S10E, 75 lks., and a Pine 15 inches in dia., S25E, 22 lks., and a Pine 20 inches in dia., N75 1/4E, 124 lks."

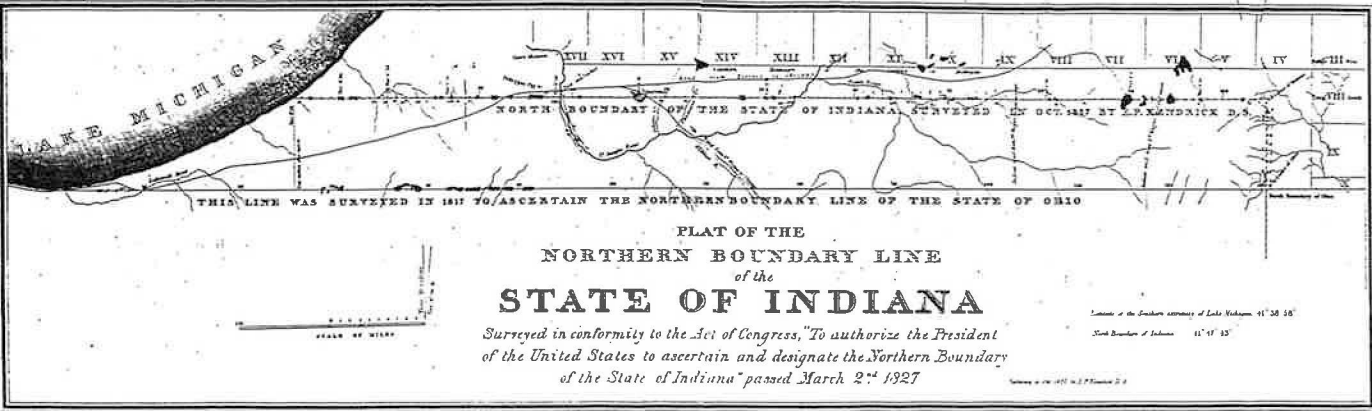
"On the evening of October 11th, I was informed by observation the variation to be 6 degrees 10 minutes E. On the 12th I commenced at the corner before mentioned and ran East carefully observing my back sight."

East	on the 1 st mile
31.14	a W. Oak 14 in dia
52.50	a stream 12 lks wide N

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- 58.25 a Y. Oak 5 in dia
- 65.84 a W. Oak 10 in dia
- 80.0 mile post from which a W. Oak 15 in dia
S8E 83 lks & a Y. Oak 8 in dia N20E 18 lks,
uneven from sandy land, Pine, W and Y
Oak small and scrubby Hackberry



Kendrick goes on in a similar manner from mile post 1 to 105. I have transcribed these notes, but will not fill up space to put them here. See a copy of his plat attached. Michigan began seeking admission to statehood in 1833, always insisting on the Ordinance Line as its southern boundary. Settlement of the northern boundary of Ohio and Indiana and admission of Michigan into the Union were inseparable questions. They were combined into a compromise, enabling act on June 16, 1836. Ohio got the Toledo Strip and Indiana got the north line surveyed by Kendrick.

Immediately upon establishment of the north boundary of Indiana the surveys in Michigan and Indiana were contracted to close upon this line. The Deputy Surveyors were instructed to make note of and measure the falling distance of the range lines to the nearest Mile Post set by Kendrick on the State Line.⁵

There are about a dozen such references in the Deputy Surveyor's field notes in the office of the St. Joseph County Surveyor. An example of the Deputy Surveyors records for St. Joseph County, Indiana shows the following by William Brookfield, Deputy Surveyor, in the summer of 1829: "North between Sections 10 and 11, T38N, R1E 2nd Meridian, 44.28 chains intersected State line 742 lks. East of a Hickory Station 6 inches in dia. on the 23rd mile from Lake Michigan."

Also, "North between Sections 8 and 9, T38N, R1E, 43.94 chains Intersected Stateline on the 24th Mile and a raised mound."

There are numerous mentions in the field notes of the Deputy Surveyors of this intersection with the State line and ties to the original mounds etc. set by Kendrick. The work of the Deputy Surveyors was done between 1827 and 1832 in St. Joseph County. The records show the Deputy Surveyors were William Brookfield, Thomas Brown, and Thomas Henderson.

There has been much discussion between the States of Indiana and Michigan in the past two years about a project to re-establish the State line. Mr. Jack N. Owens, PS from Flint, Michigan has put together a suggested approach to retracing the

Indiana-Michigan Boundary. The following is taken from his report to the Michigan Society of Professional Surveyors.

"As licensed land surveyors in either Indiana or Michigan, we can retrace the original G.L.O. surveys which were terminated on the State Line with two sets of closing corners corresponding to the layout of the townships and their subdivisions into sections from the 2nd Principal Meridian for Indiana and the Michigan Meridian for Michigan. Accordingly, since these

corners are better known and perpetuated or re-established from collateral evidence of the adjacent section corners, the first step should be to recover or re-establish these corners. The County Surveyors in Indiana feel they have good records on many of these corners. I would suggest that as many as possible of any of the missing Indiana Closing Corners be repositioned so as to have a complete an alignment as possible of the State Line according to these corners. I have looked at a limited amount of the Indiana County Survey records from the 1800's. They obviously had a similar law to the one in Michigan stating that the lines would be retraced and the monument set to perpetuate and/or re-establish the corners would be described along with the measurements of the survey being recorded. They even have sworn chainmen making the measurements as do the Michigan records, also very likely being the owners for whom the survey was being made. These retracement surveys seem to be closer in time to the original surveys, 1850's-1860's and 70's. Many of the similar Michigan County Surveyor records I've seen date from the 1870's-1880's. The Indiana County Surveyors seem to have perpetuated many corners with stones, and these should be recovered because of their close proximity to the original corners (20-30 years). Stones, of course, make very durable monuments for the corner positions; they're just hard to find. Locators don't help and digging is the best method by far to find them."

"I suggest that, for each state, we as licensed land surveyors volunteer to help retrace the closing corners to the State Line from the last section corner to the north or south of the respective closing corners. This would need to include recovery of the corners per any records and measurements between the corners to verify positions or restore the positions by proportional measurements. The County Surveyors in the counties can assemble the dossier of records for the corners. As in Indiana, a search for stone monumentation should be made as it signifies a survey procedure 120 years old. Records of all measurements and monumentation can be provided to the County Surveyors for their

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county records. Each county can set up a procedure to best fit their individual program records, etc. This would be step one to establish the best reasonable location for the State Line. From this point a search for evidence of the Original Mile Posts can begin."

"Once nearly all the closing corners are re-established we can retrace the State Line. These closing corners, like the closing corners on township lines, are the junior corners. As with a township line the corners first established control both the alignment and proportional measurement along the line which is regarded as having been fixed in position by the senior survey, and the senior corners on the State Line would be the Mile Posts set by Kendrick. Undoubtedly, the two sets of corners, if each is held as the line without regard to the other set, will show two lines close together but not coinciding. Once the final line is determined, the Closing Corners can be handled by the Amended Monument procedure in the BLM Manual. By this point, if not before, they should be located by GPS procedures, probably RTK. Static GPS should be used to establish control points every three miles to facilitate the use of RTK procedures and equipment. Using both sets of Closing Corners and their respective tie distances given in the original G.L.O. notes for each township, proportionate positions for the Mile Posts can be determined. It is then very simple to use the stake out routine available with RTK GPS equipment to quickly navigate to the location determined for each Mile Post. A thorough search can be made for evidence of the Original Mile Post. This should include digging for the corner. Much of the area is sandy soil and discolored decayed stakes are seen much more readily than in clay soils. I have also looked for evidence of the bearing trees, as well, the few times I've recovered an original decayed G.L.O. corner post. In some cases the decayed roots of the trees are seen and identifiable as such since they radiate further outward from a central point as one digs deeper. Close agreement with the original witness distance from a decayed corner post to the center point for the decayed roots of a bearing tree considerably strengthens such finds. As surveyors we are better qualified than most anyone else to make such recoveries and evaluations. Any such recovered Mile Post would not be lost and can be proudly perpetuated for the program."

Mr. Owens goes on to recommend paper work etc., but I won't get into his procedures any further. You can see his method and it seems to make sense to me. I have contacted the County Surveyors from LaPorte, Elkhart, LaGrange, and Steuben Counties and most have agreed that the retracement is a worthwhile project. The State Highway has also agreed to participate since some of the Indiana Toll Road runs along the State Line.

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How Close
...continued from page 17
When to rely on measurements

It is only in the absence of all monuments and marks upon the ground and in total failure of evidence to supply them that recourse can be had to calls for courses and distances as authoritative [from 12 Am Jur 2d Boundaries, §73, citing M'Iver v. Walker, 17 US (4 Wheat) 444 (Tenn, 1819), 4 L.Ed 611; M'Iver v. Walker, 13 US (9 Cranch) 173, (Tenn, 1815), 3 L.Ed 694; Bryan V. Beckley, 16 Ky (Litt Sel Cas) 91 (1809); Budd v. Brooke, 3 Gill (Md) 198 (1845); Collins v. Clough, 222 Pa 472, 71 A. 1077 (1909)].

How lost is "lost"?

For corners to be lost, they must be so completely lost that they cannot be replaced by reference to any existing data or other sources of information, and before courses and distances can determine boundary, all means for ascertaining location of the lost monuments must first be exhausted [from U.S. v. Doyle, 468 F2d 633 9C.A. Colo., 1972].

While there is no question that precision and precise measurements are important, it should be clear that precision must not get in the way of accuracy, nor is precision a substitute for accuracy. Parcel location is paramount; precision of measurement needs to be as adequate as necessary for the use intended. I think it goes without saying that surveyors, in particular, need to guard against putting all the emphasis on refinement of measurement and closure at the expense of mis-identifying corners, lines, and property location.

Thanks, Bob, for your insight. Perhaps our visions of the future are not clear, but they are consistent. And they are consistent with our courts and in agreement with the previous generation, composed of the Gerry Hydes, the Henry Sipes, and the Heman Chases. Maybe you and I are now considered by some to be among the "old-timers." With that, I would like to think that we've gained respect for property location, and when "close enough" is indeed "close enough."

This article appeared in The Benchmark (New Hampshire) Summer 2002



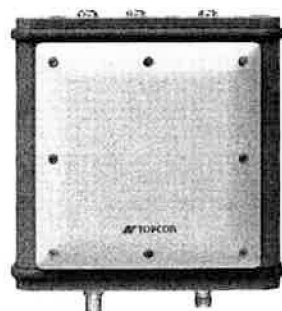
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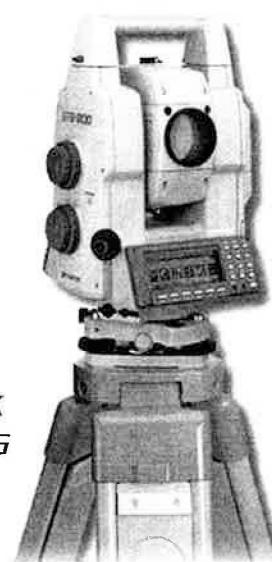
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LS REGISTRATION BOARD'S CE AUDIT REPORT

At the April LS Registration Board meeting a progress report was made concerning the auditing of LS registrants with regard to satisfying the continuing education requirement which is needed for the renewal of the land surveying certificate. Rule 13 on Continuing Education outlines the method of auditing this compliance. The total number of active LS registrants now numbers about 900 and the Professional Licensing Agency and LS Board chose to audit about 10 %, chosen randomly, except to include those LS who are currently on probation. The number chosen was 89. Fifty-three have currently been approved, two have renewed as inactive, and two were new registrants who had no CE requirements for their first renewal period. There are currently 18 being reviewed for compliance and 14 are currently being asked to respond because of being tabled or denied. One land surveyor has not responded at all yet.

The auditing process does require a considerable amount of review time and correspondence regarding notification and responses. This, being the first such audit, is a learning process for the Board. Registered land surveyors who submit false information or who are found not to be in compliance will be subject to discipline and possible sanctions. Further reports from the Registration Board can be anticipated.

BOARD OF REGISTRATION REVISES RULES

by Rick Miller, PLS - Indianapolis

The Indiana Board of Registration for Land Surveyors recently adopted changes to two of its administrative rules. These rules, which took effect in January, 2003, affect Surveyor Location Reports and the number of exam attempts an applicant is allowed when taking the land surveyor-in-training (SIT) examination.

Previously 865 IAC 1-12-28 required a land surveyor to briefly describe and show the location of "any monuments found" when performing a Surveyor Location Report (SLR). The revised rule eliminates the requirement to show any found monuments. While finding and weighing the reliability of found monuments is still critical to the surveyor in determining the approximate location of boundary lines and their relationship to improvements on the premises, the Board of Registration felt that actually showing such monuments on the face of the SLR drawing could be mistaken by the public as representing a boundary line opinion which goes far beyond the scope and purpose of an SLR.

Secondly, the number of exam attempts that a surveyor-in-training candidate is permitted under rule 865 IAC 1-4-8 has been increased to three (3) attempts. Any individual who took the examination the first time after January 1, 2002, shall be entitled to the third attempt.

The revised rules have been posted to the Board's website which can be viewed and downloaded at <http://www.in.gov/legislative/iac/title865.html>

Report from the ISPLS Liaison to the Board of Registration

by Gary R. Kent, PLS - Zionsville

In a significant departure from previous policy, a representative of the Consumer Protection Agency of the Indiana Attorney General's Office told the Land Surveyors Registration Board at its April 11th meeting that it will now accept and investigate complaints that are sent to the Agency anonymously.

Anonymous complaints may be mailed to the Consumer Protection Agency and should include as many examples of surveys demonstrating sub-standard work as possible. In keeping with previous policy, the Board of Registration has directed its liaison to not act on complaints detailing single examples of sub-standard work - evidence of an on-going pattern generally must be submitted.

The Land Surveying Board and its liaison to the Attorney General's Office are vigorously attempting to step up the pace that complaints take as they progress through the system.

There are a number of complaints against Indiana Registered Land Surveyors outstanding, and with the on-going severe staffing shortage in the Attorney General's Office (and in the Consumer Protection Agency, in particular) complaints tend to languish in the system.

The Consumer Protection Agency is responsible for handling complaints affecting numerous Boards in addition to the Land Surveying Board.

The Attorney General's representative has been asked to prepare an up-to-date list of current complaints and to make regular reports to the Board on each. In addition, it has been reported recently that the Agency has added several new attorneys to its staff to deal with complaints, albeit not just for Land Surveyors.

Due to the need for a fair hearing before the Board, the only Board member that knows the names and exact details of each complaint is the Board Liaison. Persons having problems with fellow registrants and contemplating filing a complaint should be reminded NOT to discuss this with any member of the Board of Registration.

As has been previously reported, there is an official form of the Consumer Protection Agency that the complainant is asked to fill out detailing the complaint. Although an attempt is made to protect the name of the complainant, due to the nature of the process, that cannot be guaranteed. With the acceptance of anonymous complaints, however, some persons' anxiety over possible retribution for "turning in" a fellow registrant may be relieved.

The complaint form is sent to the Consumer Protection Agency and the Agency, together with the Board Liaison, assess the complaint to determine if it warrants Board action or, in the case of non-licensed surveying, action by the Attorney General's office itself (the Board itself has no direct jurisdiction over non-licensed practice).

If the determination is that the complaint is valid, a hearing will be set at which the registrant will face the Board to answer the allegations.

If the registrant is found to be in violation of the rules or Statute, the Board has a variety of sanctions that may be assessed. These include permanent revocation or suspension of the license to practice, censure, civil fines (up to \$1000.00 for each violation) and letters of reprimand. In addition, the Board may place a registrant on probation and invoke a variety of associated requirements on the registrant such as placing limitations on the registrant's practice, requiring regular submittals and reports to the Board and requiring proof of additional continuing education.

Meander Lines - Their Early History

By Bill McComber, Past-President, Professional Land Surveyors of Colorado

With few exceptions, the real boundary of a navigable stream or river is where the ordinary high water mark is located at present-not at the surveyed meander line. The position as shown by the original survey record is useful and necessary in determination of the amount of river movement and for the location of base lands for apportionment of accretions.

Where fraud in the survey has been proven and in cases where large areas of upland have been omitted from the survey, the meander line has been held to be the actual boundary line. But, these situations are special exceptions to the meander line as an ambulatory boundary and are not at all a common occurrence.

Meander lines are defined by Black's Law Dictionary as,

Lines run in surveying particular portions of the public lands which border on navigable river, not as boundaries of the tract, but for the purpose of defining the sinuosities of the banks of the stream, and as the means of ascertaining the quantity of land in the fraction subject to sale, and which is to be paid for by the purchaser. In preparing the official plat from the field notes, the meander line is represented as the borderline of the stream, and shows that the watercourse and not the meander line as naturally run on the ground, is the boundary. Miles v. Cedar Point Club, 175 U.S. 300, 20 S. Ct. 124, 44L.Ed.171.

The Glossary of BLM Surveying and Mapping Terms, Cadastral Survey Training Staff, Denver Service Center, 1978 defines Meander Line as,

The traverse run at the line of mean high water of a permanent natural body of water. In original surveys, meander lines are not run as boundary lines. They are run to generally define the sinuosities of the bank or shoreline and for determining the quantity of land in the fractional sections remaining after segregation of the water area.

In the earlier days of the cadastral surveys of the public lands, instructions to the field survey crews concerning the process of meandering were at most incomplete or superficial. Perhaps this was because meandering of lakes and rivers was a common practice in England and the techniques used for meandering were an expected part of the skills of the surveyor of the day. They did, however, mention the reservation of navigable rivers. This is illustrated by the following:

That all navigable rivers, within the territory to be disposed of by virtue of this act, shall be deemed to be, and remain public highways...(Section 9, Act of May 18, 1796)

From as early as 1804 the surveyors of the public lands were instructed to meander rivers so that the sinuosities of the navigable streams could be shown and entrymen would not have to pay for the river bed area. The angle points of the early meander lines were not monumented on the ground. An entryman who settled on a meandered tract would only find monuments on the river or lake where the section lines intersected the bank. He could well assume that the patent went to the bank of the water body wherever it happened to be. In fact, this assumption was confirmed in later

court decisions.

One of the earliest mentions of meandering was in 1815 when Edward Tiffon, Survey General of Ohio, issued instructions ordering surveyors: "In meandering Rivers you will take the bearing according to the true meridian of the River and note the distance on any course where the River intersects the section lines, and the calculation of the contents of fractions (fractional sections) are to be made into tables of difference of latitude and departure, and returned on the plats."

In 1831 the Surveyor General received the following meandering instructions to be placed in the contracts for survey work: "The courses and distances of the meanders of navigable streams are to be truly delineated, and also represented by figures on the plat opposite the delineation, wherever it is practicable to do so; and where the same are too numerous to admit of their exhibition by figures on the plat, in that mode, the same are required to be exhibited in a detached tabular form, either on the face of the plat, or connected therewith, as may be found most expedient. The width of all watercourses, rivers, creeks, & c., is to be represented in figures on the plat. And later on, "All lakes or ponds of sufficient magnitude to justify such expense are to be meandered and platted agreeably to courses and distances, which are also to be exhibited by figures."

In 1833 the instructions cleared up how the banks were to be named. Some previous instruction had required that cardinal directions from the main thread of rivers be used to describe the banks, such as the "northwest bank." These instruction stated that the terms "Right bank" or "Left bank" be used, in all cases, thus-suppose yourself standing at the head of the river, looking downstream; then that bank of the stream on your right hand is to be called and referred to in your field notes as the "Right bank" and that on your left hand as the "Left bank."

Early instructions furnished no specific directions as to how the surveyor was to pick the point to place meander corners or angle points on the bank. Early manuals required that non-navigable rivers be meandered on only one bank. Prior to 1825, only large lakes were meandered; after 1825, lakes of 40 acres and upward in size were meandered, and these only, because settlers didn't want to pay for land they couldn't farm. Ironically a published supplement to the 1855 Manual lowered the size of lakes to be meandered to 25 acres, but then cautioned that "shallow ponds, readily to be drained, or likely to dry up, are not to be meandered."

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This article appeared in the Wisconsin Professional Surveyor, December 2002.

West Nile Hits Home

by Ronald E. Koons, RoSaKo Enterprises
Safety Consultant, Middletown, Indiana

As if we don't have enough to worry about, the Centers for Disease Control (CDC) seems to feel the West Nile Virus is one more thing to add to our list. West Nile received a lot of media attention last year. According to the CDC, the first case of West Nile Virus in the Western Hemisphere wasn't even reported until 1999. It is commonly found in Africa, West Asia, and the Middle East. It has traveled throughout the United States with tremendous speed. In 1999-2001, 5 states in the northeastern section of our county had positive signs of infection. In 2000-2001, 7 more states were added. In 2002 the only states (within the continental 48 states) that reported no known cases were Oregon, Nevada, Utah, and Arizona.

According to the CDC, "West Nile Fever is a case of mild disease in people, characterized by flu-like symptoms. West Nile fever typically lasts only a few days and does not appear to cause any long-term effects". They continue to say that "More severe disease due to a person being infected with this virus can be West Nile Encephalitis, West Nile Meningitis, or West Nile Meningoencephalitis. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord, and meningoencephalitis is when both the brain and membrane around it have inflammation."

West Nile virus can infect humans, birds, mosquitoes, horses and some other mammals. As described above, just getting the virus doesn't mean a person will die, but there have been a number of deaths associated with the disease. In 2002 there were 4,161 laboratory positive cases of human infection with 277 confirmed fatalities. Indiana had 291 cases with 11 fatalities. Illinois led the nation with 879 cases and 60 fatalities. If you think about it, that is really astounding. No known cases prior to 1999 and in 2002 nearly 300 have been confirmed to have died from this illness. Even though it may not always be fatal, we certainly need to be informed and know what to do for prevention.

Your local communities are the first line offense against the spread of West Nile. As in any mosquito born illness, the first thing to do is get rid of the breeding places for mosquitoes. Old tires, drums, any stagnant pool of water, gutters that are not drained, storm water inlets, and in general all non-moving water pools are all potential breeding grounds. Keeping these controlled is the primary solution. To prevent ourselves from being bitten by mosquitoes, the CDC recommends protecting ourselves in several ways. First of all, we should keep our skin covered as much as possible. Long sleeves, pants, socks, should all be worn when going into areas of potential mosquito activity. Clothing should be light colored and tightly woven. Collars on shirts should be fastened. In other words, make the target as small as possible. However, we need to realize that mosquitoes can bite through some clothing. The tighter the weave, the less potential. When going outdoors during periods of heavy activity for mosquitoes, dusk and dawn, maximum protection should be taken. During other times of the day it depends on where your crews are

working. However, since a crew may go to several different areas in a day, we probably shouldn't take any chances.

In the mid 1940's the army developed a product commonly called DEET. It has been found to be the best way to prevent mosquito and many other insect bites. (Note that ticks are also controlled by DEET.) The problem is that DEET is available in many forms and strengths. Some solutions contain as little as 2% or 3 % DEET while others may have as much as 95% active DEET. If you don't see the word DEET on a product, then look for it's chemical name which is N,N-diethyl-m-toluamide. It is found in lotions, sprays, aerosols, and just about any way imaginable.

I have found some information that indicates use of a 95% DEET solution will give protection for up to 10 hours. Lessor strengths will give significantly less protection time. Some as little as 60 to 90 minutes. As with any chemical, there are definitely precautions. Never let children apply the product. Never apply DEET under clothes. You may spray it on clothes, but never on vinyl, rubber and most plastics. Always wipe DEET off the palms of your hands after application of a lotion type product.

The CDC does say that the strain of West Nile found in the United States is most related to strains found in the Middle East. Although no one that I have found carries that thought any further, it might be fodder for some interesting discussions...hmmm.



Surveyors Historical Society, Roger Woodfill displays his "Terra Meter" measuring wheel (made by Rush Mfg. Corp., Lafayette, IN many years ago), at the recent state convention..

CALENDAR

August 12-15, 2003

Surveyors Review Course. Campus of University of Missouri-Rolla (UMR). Co-sponsored by UMR and Missouri Society of Professional Surveyors. Topics: Exam Preparation, Legal principles, USPLSS, Errors Analysis, Route Surveys, Celestial Observations, Instrumentation, Photogrammetry, GPS Surveys, State Plane Coordinates, problems Session, Practice NCEES-like Exam. Missouri board preapproved for 3.7 CEU's, 37 PDU's. Instructors: Dick Elgin, David Knowles, Joe Paiva, Norman Brown. \$730.00. Contact: Sue Turner, Engineering Continuing Education, University of Missouri-Rolla, Rolla, Missouri 573-341-4132.

August 13-16, 2003

82nd Annual Meeting of the National Council of Examiners for Engineering and Surveying. Renaissance Harborplace Hotel, Baltimore, MD. Check: www.NCEES.Org

September 5-9, 2003

Rendezvous 2003, Surveyors Historical Society, Lansing, Michigan. Theme: History of Surveying Education. Contact Roger Woodfill at (812) 537-2000.

September 12, 2003

ISPLS Seminar, Abe Martin Lodge, Brown County State Park, Nashville, Indiana

January 15-17, 2004

52nd ISPLS Annual Convention at Marriott Downtown Hotel, Indianapolis, IN. sponsored by Southwest Chapter.

June 24-27, 2003

XIX North American Surveying and Mapping Educators. Conference hosted by the Centre of Geographic Sciences. Nova Scotia Community College, Wolfville, Nova Scotia, CANADA,

LANDMARK ENTERPRISES CHANGES OWNERSHIP

On April 1, 2003, Landmark Enterprises ceased selling books by mail. Arrangements have been made with Paul Cuomo Press to continue providing this service. All further inquiries and purchases should be directed to:

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Fax: 714-968-9113
email: tvcp@pcpressinc.com

Many of you will recognize the name since Paul is a noted speaker at seminars throughout the country. His son Tom will run the day-to-day business at the address above. Tom will provide full service bookselling so that once again customers will be able to talk to a person during business hours. Tom is also working on a website that will provide both the catalog and on-line ordering.

WELCOME NEW ISPLS MEMBERS

January 16, 2003

David Boblitt - Associate
Terrell Brandenburg, Jr. - Associate
Jeremy Burns - Associate
Steven Casterline - Member
James Fazekas - Student
Leif Fisher - Associate
Richard Hodges - Associate
Kevin Human - Associate
Kerry Kingman - Associate
William Kyler - Member
Kevin Michel - Member
Cory Miller - Associate
Terry Miller - Associate
Mike O'Donnell - Associate
Larry Van Osdol - Member
Thomas Smith, III - Associate
David Stoeppelwerth - Member
John Varner - Member
Brian Wagner - Associate
John Wilson - Associate

March 8, 2003

Susan French - Associate
Jack Johnson, Jr. - Associate
Jason Spain - Associate
John Susong - Affiliate

IUPUI Classes for Fall 2003

CET 104 Fundamentals of Surveying
Monday, Wednesday 2:30 to 5:00
Brian Kinsey

CET 204 Land Survey Systems
Thursday 5:45 to 8:35
Gary Kent

CET 210 Surveying Computations
Saturday 9 AM to 1 PM
Kevin Potter

CET 305 Control Surveying
Thursday 5:45 to 8:35
Instructor not known

CET 307 Property Surveying
Wednesday 5:45 to 8:35
Gary Kent

For more details call:
Professor Erdogan M. Sener., P.E.
Chairman, Department of Construction Technology
Purdue School of Engineering and Technology
Indiana University-Purdue University Indianapolis
799 West Michigan St. ET 309 K
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