

HOOSIER SURVEYOR

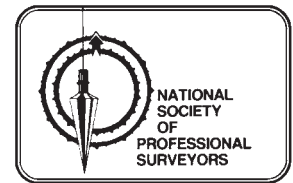


QUARTERLY PUBLICATION OF THE
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PROFESSIONAL LAND SURVEYORS, INC.

VOLUME 33
NUMBER 3
WINTER 2007



AFFILIATED WITH THE
AMERICAN CONGRESS ON
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2007 SOCIETY OFFICERS INDUCTED

Ed Sweetland, left, Greenfield, new incoming president of ISPLS, presents the past president's gavel plaque to outgoing president, Frank Ballintyn, Sellersburg, at the recent January 2007 annual ISPLS convention held at the Adam's Mark Hotel in Indianapolis

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HOOSIER SURVEYOR

VOLUME 33 NUMBER 3 WINTER 2007

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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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ISPLS BOARD OF DIRECTORS (2007)

l to r, first row: Frank Ballintyn, Sellersburg; Perry Cloyd, Columbus; Harold Hart, Charlestown; Don Bengel, Valparaiso; Richard Hudson, Valparaiso; Ron Wharry, Frankfort; Jim Tibbett, Linton; Second row, l to r: Todd Bauer, New Haven; Steve Murray, Battle Ground; Mark Isaacs, Brownstown; Ed Sweetland, Greenfield; Dan Kovert, Fishers.

PRESIDENT'S THOUGHTS

by Ed Sweetland, Greenfield, Indiana



Hello fellow surveyors:

What an exciting three weeks this January and February has brought to myself, our membership, and our fellow Hoosiers. First, on January 18th I was sworn in as your 55th president of our great society. Then within a few days our Indianapolis Colts won the AFC Championship and ultimately went on to win Super Bowl XLI. While preparing this letter I was watching (via television) the

Colts victory parade wind its way through the streets of Indianapolis seeing the exuberant fans express their excitement and gratitude for the team's victory. As these fans lined the streets of downtown Indianapolis in single digit temperatures and waiting several hours to cheer and possibly shake the hands of their favorite Colts players, only one word came to mind - CLASS. This one word describes not only the Indianapolis Colts' organization but also its great fans. The Colts players and their fans could have celebrated the victory recklessly but instead they celebrated with CLASS.

The Indiana Society of Professional Land Surveyors, like the Colts, is a CLASS organization. Our society is comprised of members who have dedicated their time as chapter officers, committee members, committee chairmen, and board members, for which we should all be very thankful. But, not only are they dedicating their time to the society and our profession but we have many members dedicated to helping not only fellow Hoosiers but fellow Americans to clean up after tornados, hurricanes, and other disasters as well as supporting many charitable organizations, for which we should all be very thankful.. Our CLASS organization can accomplish great things if we ALL work together as one TEAM. I ask that all veteran members step up and coach our younger membership to becoming an ISPLS TEAM player. I ask all young members to be patient with their mentors and always challenge the ISPLS TEAM to improve. You are the future of our society and our profession and I welcome your input.

The committee assignments, their chairman, the administrators for the four groups, and their charges are published within the ISPLS web page and in the current issue of the Hoosier Surveyor. Copies of each committee's charges have been distributed to all committee chairmen for their review. By the time this article has been published each of the committee chairmen should have contacted each committee member with their charges and the committee scheduled meeting dates. If you have not been contacted please contact your committee chairman or me so we can get you involved with the committee. Some committees have already reviewed their charges and have shared with the BOD their goals and completion dates. I ask that all committee chairmen please report their committee activities to their respective administrators. Thanks again to all committee chairmen and administrators for their help.

I am aware that many of you have a life outside of ISPLS and the surveying profession so this year the Hoosier Surveyor will be publishing personal articles about our members and their interesting lives and accomplishments. So let me share with you a little about mine. My hobbies include cross country motorcycle racing and jogging in full and half marathons. I have completed the Indianapolis 500 Mini-Marathon 3 times and last year completed the San Diego Marathon as a jogger and won a national championship on my vintage dirt bike. And, if that's not enough to keep me busy, this year my wife and I are training for the Elkhart Lake Triathlon through the Leukemia & Lymphoma Society's Team in Training. I have always been a dirt biker and will continue biking after the triathlon but I never thought I would be a tri-athlete...please wish me luck. I welcome your articles and look forward to reading them in the next Hoosier Surveyor.

In closing I want to invite you to attend the next board of directors meeting scheduled for 9 AM February 24 at headquarters. I also want to thank you again for electing me as your president, it is an honor and I look forward to serving you.

Board of Registration News

by Gary Kent, PLS, Noblesville, IN

The board has started work on a revision to Rules 13 and 14 (the Continuing Education portions of the board's administrative rules) in order to accommodate a new law that passed last year, and in order to put in place regulations for continuing ed in the distance learning environment. There will eventually be a public hearing scheduled on this, but if members have thoughts, they can email them to me at gkent@schneidercorp.com.

Also, Mike DeBoy replaced Randy Miller on the BOR. Mike has taken on the job as liaison to the Attorney General's office.

ISPLS BOARD OF DIRECTORS MEETING HIGHLIGHTS

by Dianne Bennett, Executive Director

September 11, 2006

The ISPLS Board of Directors held a meeting on Saturday, September 11, 2006 at Purdue University. President Ballintyn called the meeting to order at 8:37 a.m.. The minutes and treasurer's reports were reviewed and approved.

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

Officer's Activity Report - Frank reported that he attended a meeting in Niles, Michigan regarding the Indiana/Michigan border with county surveyors from each state. The next meeting will be addressing the Northeast corner of the Indiana/Michigan border.

Harold Hart provided a Section Corner perpetuation sheet template for use by surveyors on projects to address the new rules. Harold suggested that when the document is updated it be placed on the ISPLS web site.

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

Intersociety Relations - The committee met on June 28, 2006 to review their charges.

Membership - The BOD reviewed and approved the following membership applications: Professional Member - John Redash, Bret Miller; Associate - Mark Bonham, Willie Elliot; Student - Jorge O'Neil, Adam Tyra, Michael Goralski, Joshua Werner, Steven Seiler, Steven Rust, Seth White, Joseph Cross, Eric Fujikawa, Melanie Fuoss, Brad Perry; Life Member - Jerry Martin, David Butterworth.

The delinquent member list was reviewed and discussed. Other discussion occurred regarding the membership of the State of Indiana employees. There was discussion regarding member and non-member fees for continuing education seminars and government employee's membership fees. A motion was made and passed to forward this issue to the Finance Committee.

Past President's Council - The committee recommended that the committee be incorporated into the ISPLS By-Laws.

Publications - Committee has not been active but is working on a coloring book for the BOD to review.

Public Information and Marketing - The committee met on August 11, 2006. The committee reviewed and discussed the goals included in the Plans and Goals established at the March 27th meeting.

Web Page - The ISPLS GPS-GIS committee has expressed interest in securing space for the posting of information and materials that may be of membership interest.

Professional Development - Education - A seminar on "Regulatory Functions of the U.S. Army Corps of Engineers" is scheduled for September 29th at Clifty Falls State Park.

Licensing Exam Review - A licensing exam review was held at Ivy Tech, Sellersburg, for LS, SIT and technicians.

Scholarship - Interviews are scheduled November 17th.

Government Affairs - Board of Registration - The November LS certificate presentation will be the last one.

County Surveyors - The county surveyors have requested support from ISPLS on upcoming legislation to expand the recordation fee to include other documents containing legal descriptions. The hope is that the additional fees will support the

Section Corner Perpetuation Funds.

NSPS Governor/Great Lakes Council - Don Bengel will be attending the Great Lakes NSPS Governors meeting next week. A NAFTA agreement was reviewed and discussed. A motion was made and passed that Indiana will not support the NAFTA MRD.I.

GPS-GIS Monumentation - The committee met on July 27th. The meeting discussion was on the following topics: CORS Stations; Height Modernization; RTK GPS; Section Corner Perpetuation; Section Corner Tie program. The next meeting will be September 14th.

Legislation - The ISPLS lobbyist has been working on legislation to allow the BOR to have jurisdiction over non-licensed practitioners.

Standards - The Indianapolis Sanitary District has established new standards to be in effect November 1, 2006.

Internal Affairs - By Laws - The committee will be meeting September 28th and October 10th.

Chapters - There are 18 members who are interested in establishing the West Central Chapter.

Finance - Dianne met with ISPLS accountant on August 24th to review the 2005/2006 fiscal year.

Nominations - The nominees for the 2007 President Elect are: Frank Ballintyn and Mark Isaacs.

Next BOD meeting is December 2nd at the Marriott East, site of the 2009 annual convention.

December 2, 2006

The ISPLS Board of Directors held a meeting on Saturday, December 2, 2006 at the Marriott East. President Ballintyn called the meeting to order at 9:06 a.m.. The minutes and treasurer's report were reviewed and approved.

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

Officers' Activity Report - Ed Sweetland presented his committee organizational structure and assignments.

Frank Ballintyn attended the certificate presentation for the new land surveyors licenses on November 16th.

Hoosier Surveyor - Fall issue is in the mail and deadline for articles for the winter issue is January 23rd.

Membership - The following memberships were reviewed and approved by the BOD. Affiliate - Michael Shackelford; Student - Jarrod Albright, Adam Althouse, Christopher Bledsoe, Bryan Bonte, Brandon Deckard, Patrick Gofourth, Daniel Grimes, Luke Hopwood, Todd Keown, Chad Krampe, Bradley McPike, Jared Memering, Christopher Porter, Travis Price, Joshua Reagan, Matthew Runyan, Chase Schmucker, Jessica Snider, John Stephens, Ben Taylor.

Past Presidents Council - A motion to establish the committee was forwarded to the By Laws committee.

Public Information & Marketing - Ed Sweetland made contact with local Boy Scouts and other agencies.

Web Page - Mike Davis is working on a project for his IUPUI class to create a web page with the ISPLS site to display articles and stories related to surveying.

...continued Page 5



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Minutes

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Professional Development - Education - Seminar summaries for August 4th, September 29th, October 6th, October 27th, and Nov. 4th were presented to the BOD for review.

A request from one seminar attendee for partial credit was denied. The ISPLS policy is not to provide partial credit for seminar attendance.

A letter was received from the Southwest Chapter requesting to host the 2009 Annual Convention. A motion was made and passed to accept the request from the Southwest Chapter to host the 2009 convention at a location to be determined by the ISPLS BOD.

After discussion of convention rate fees, a motion was made and passed to approve the 2007 Convention fees.

There was also discussion regarding future convention locations and considerations. The board directed Doug Herendeen to pursue negotiations with the Marriott East for hosting the 2009 convention and potentially beyond through a long term contract.

At the 2007 convention business meeting a formal report and presentation will be made. This will enhance the material presented and benefit the membership.

Licensing Exam Review - The review was held September 9th at IVY Tech, Sellersburg. There were 9 technicians, 7 SIT and 5 in the LS review.

Scholarship - The committee met on Friday, November 17th and recommended Joshua D. Werner be awarded the P.U. John McEntyre Scholarship.

The P.U. John McEntyre Scholarship report was also reviewed by the BOD.

Trig-Star - The state license fee for Trig-Star has been paid. Additional information regarding Trig-Star is available through the ISPLS or the web site.

Government Affairs - Board of Registration - Perry Cloyd reported on the BOR meeting on November 16th, 2006. Mike DeBoy has been appointed to the BOR.

The board is continuing to pursue complaints and actions regarding land surveyors.

The current Rule 12 will have to be completely re-evaluated and revamped to address current legislative actions and recent developments.

County Surveyors - The current Section Corner Tie Card project is ongoing and continuing to make progress.

NSPS Governor/Great Lakes Council - Don Bengel attended the NSPS convention and reported on the activities with the NSPS and Great Lakes Council.

GPS-GIS Monumentation - The committee will meet on December 12th to address the committee charges and continue their efforts.

Legislation - Rick Miller and Amber VanTil, ISPLS lobbyist, attended the meeting and reported on the lobbying activities on behalf of ISPLS.

Information was presented regarding Right of Entry and land surveyor's needs for legislation regarding these matters. This may become a future legislative goal of ISPLS.

Standards - The committee met and developed materials to address the charges assigned to the committee. The BOD is to

review the data and add to or ascertain their appropriateness for inclusion in the web site.

Internal Affairs - By Laws - The committee met December 1, 2006 to review the assigned topics. It was suggested that the by laws committee make a presentation at the annual convention.

Chapters - Reports were submitted by the Southwest and Northwest Chapters. P.U. submitted a report on their recent activities.

Finance and Planning - The committee met in October. A written report was submitted. A quarterly report from Wallington Asset Management was also reviewed.

A contract from a Software Development consultant was also reviewed to provide services to the ISPLS to rectify database issues and needs.

Nominations - The President Elect results were tabulated. Mark Isaacs was designated as President Elect.

The nominations committee also provided a list of nominees for the 2007 BOD slate.

New Business - It was noted that Past President and Life Member, Wes Day had passed recently.

The next BOD meeting will be January 17, 2007 at the Annual Convention at the Adams Mark Hotel, Indianapolis.

There are five (5) realizations of NAD83

What does that mean? It simply means that over the past 20 years, technology has allowed scientists to refine the origin of this datum. The first realization of NAD83 was introduced in 1986 by a group of institutions representing the various North American countries to upgrade the previous reference system; that was the North American Datum of 1927 or NAD27. Nevertheless, the migration toward using GPS technology for deriving accurate heights led to the second realization known as NAD83 (HARN). In late 1994, NGS introduced a third realization of NAD83 when the agency organized a network of continuously operating reference stations (CORS). Improvements on the CORS network led to the fourth and fifth realization known as NAD83 (CORS96),+ respectively.

How do the 5 realizations affect me as a surveyor? It should be noted that the NAD83 (HARN) latitude and/or longitude of a given control point may differ by up to a meter from its corresponding NAD83 (1986) coordinate. For a more detailed explanation of the development of NAD83 please refer to the article, "Modern Terrestrial Reference Systems, Part 2: The Evolution of NAD83" in Professional Surveyor dated February 2000.

Reprinted from the Louisiana Journal, November 2006

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Indiana Society of Professional Land Surveyors

2007 Committee Charges

ISPLS Administrators:

Communications - Todd Bauer

Web Page, Hoosier Surveyor, Membership, Public Information and Marketing, Past Presidents Council

Professional Development - Todd Bauer

Education, Survey Exam Review, Scholarship, Trig-Star

Government Affairs - Mark Isaacs

Board of Registration, County Surveyors, Governor Great Lakes Council, GPS-GIS Monumentation, Legislation

Internal Affairs - Mark Isaacs

ByLaws, Finance and Planning, Nominations

Web Page

1. Manage the operation of the Society's web page (ISPLS.org) through our webmaster, Gary Vittoz.
2. Investigate any needed improvements to our web page and report to the BOD.
3. Evaluate the inclusion of paid advertisements to our web page by associates with like interest.
4. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Hoosier Surveyor

1. Develop and publish the *Hoosier Surveyor* quarterly, with an "article submission page" requesting type of articles and writers.
2. Expand articles and increase the number of writers.
3. Create a digital copy of the *Hoosier Surveyor*, which can be published on the society's web page.
4. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Membership

1. Review all membership applications for required items, and present to the BOD for final approval.
2. Make recommendations to the BOD for particular membership achievements and awards, and in their presentation at the convention.
3. Call businesses to advertise Business Cards in roster and on web page and advise the Executive Director.
4. Call all new licensees to congratulate them and delinquent members to renew their membership.
5. Call all of our members and ask, "What can ISPLS do for you?" and present a compilation to the BOD.
6. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Public Information and Marketing

1. Develop a presentation for secondary schools, civic groups, and other professional groups to publicize and promote what our Society is doing; in an entertaining way. Notify school guidance counselors of our profession. Offer an award to the

ISPLS member with the most counselor contacts.

2. Research any job fairs and school career days for ISPLS members to attend. Develop a list of surveyors willing to make presentations at the various career days for each chapter. Create or publish various types of career materials available for these events.
3. Review and continue to update the marketing plan of ISPLS and present this to the BOD.
4. Finalize and set up opportunities with legislative leaders and reporting media to publicize the profession of land surveying.
5. Update the public relations surveying brochures for public distribution.
6. Establish a communication link/contact with ISPLS-affiliated groups (ie. AIA, CEI, ILTA, Realty group, etc.).
7. Provide the BOD with a workable timetable for each charge by February 15, 2007

Past President's Council

1. With the assistance of the "Bylaws" committee, create a Past Presidents Council, fashioned after the Ohio example.
2. Assist the BOD with mentoring, ethical standards, and the policing of members.
3. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Education

1. Review for recommendation to the ISPLS Board of Directors all ISPLS and chapter sponsored continuing education seminars and the Convention program to the ISPLS Board of Directors.
2. Assist with the ISPLS sponsored continuing education seminars.
3. Assist College degree program and other ISPLS committees, if requested.
4. Brainstorm and establish a list of seminars topics that can be beneficial to both ISPLS-affiliated groups (ie. AIA, CEI, ILTA, Realty group, etc.) and to ISPLS members. Choose one of the seminars topics, find a speaker, ask for BOD approval, request CEU from the BOD, and host the seminar.
5. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Survey Exam Review

1. Conduct the SIT, LS, and technician review course annually (minimum).
2. Assist applicants with review study resources.
3. Develop joint seminars for technicians and professionals.
4. Recognize firms with Certified Surveyor Technician staff, SIT staff, and LS staff in the *Hoosier Surveyor* with an article on their staff people.
5. Recognize the success of the Certified Surveyor Technician program review at the annual convention with a presentation of their certificates.
6. Provide the BOD with a workable timetable for each charge by February 15, 2007.

...continued Page 9



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Committee Charges
...continued from Page 7

Scholarship

1. Conduct student interviews at ISPLS headquarters and make recommendations to Vincennes University for awarding of the Peggy Archer Scholarship and to Purdue University for awarding of the John G. McEntyre Scholarship.
2. Call all of the scholarship winners throughout the state to get them involved with ISPLS and become members.
3. Assist all state chapters with their scholarship recommendations, if requested.
4. Provide the *Hoosier Surveyor* committee with appropriate media information and articles on the recognition of scholarship recipients.
5. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Trig-Star

1. Encourage chapters to have their members sponsor a Trig-Star exam in a school in their respective area.
2. Provide specific guidelines for ISPLS local chapter proctors.
3. Determine the state winner and forward the winner's name to the National association.
4. Award monetary prizes to the winner and his/her teacher and forward public relations articles to the appropriate media and to the *Hoosier Surveyor*.
5. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Board of Registration Liaison

1. Attend Board of Registration meetings and report on BOR activities or impending rule changes to the BOD.
2. Inform the ISPLS membership of actions by the Board of Registration in the *Hoosier Surveyor* and on the web page.

County Surveyors

1. Coordinate with IDEM (Lorraine Wright) to split the Indiana area into parts and use chapters and ISPLS members to get all county tie cards scanned ASAP.
2. Investigate to develop a system to scan and display the original survey notes on our website.
3. Inform the BOD of current activities and legislation regarding county surveyors.
4. Continue to promote the benefits of membership in ISPLS to all county surveyors.
5. Facilitate coordination between ISPLS and the CSA to achieve common goals.
6. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Governor of the Great Lakes Council

1. Represent the interest of ISPLS at the biannual meetings of the NSPS board of Governors and Great Lakes Coordinating Council.
2. Provide reports to the *Hoosier Surveyor* and the ISPLS website concerning activities of the Board of Governors, Great Lakes Council, NSPS, and ACSM board.
3. Provide an updated report at each BOD meeting.
4. Provide the BOD with a workable timetable for each charge by February 15, 2007.

GPS-GIS Monumentation

1. Promote and assist INDOT and other agencies in the creation of CORS stations throughout Indiana.
2. Assist the State Geodetic Advisor and coordinate between county surveyors, their committees, state agencies, and various associations to develop a program for a viable recovery and perpetuation of all vertical monuments to incorporate height modernization.
3. Assist the State Geodetic Coordinator with his current geodetic programs for the State of Indiana.
4. Complete a study of the state's GIS coordinate standards for each individual county within the state. The study shall address the following issues: coordinate systems, survey units, vertical datums, horizontal datums, metadata requirements, and digital submittals. The committee report shall be due by June 1, 2007

Legislation

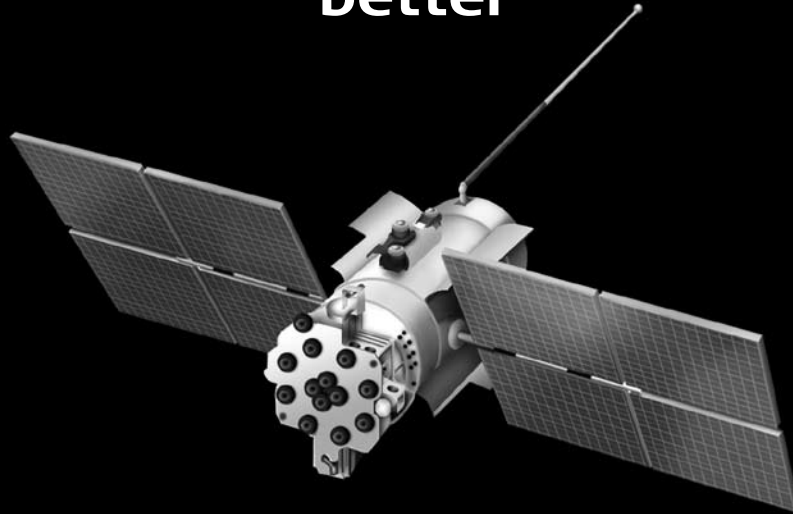
1. Meet with the lobbyists often to utilize fully our investment and to inform them of the BOD's goals.
2. Develop and support legislation bills which: provide the Board of Registration with authority to act upon non-licensed people practicing land surveying in Indiana, require corner perpetuation to be submitted and accepted by the respective county surveyor office's, assist surveyors with trespass rights, create the same requirements for recording surveys in all counties, reduce the surveyor's liability, (statute of limitations for a number of years), and require all county surveyors to be licensed in Indiana.
3. Develop joint legislation with the County Surveyors Association annually and support legislation pertaining to the county surveyors.
4. Inform the BOD at each meeting of legislative issues to be heard regarding the practice of land surveying.
5. Attend legislative meetings and give testimony as directed by the BOD to support or oppose bills regarding the practice of land surveying in Indiana.
6. Develop a list of one ISPLS representative in each chapter to coordinate legislative action and to keep ISPLS members informed.
7. Monitor any proposed revisions to Title 865 by the Board of Registration and report any findings to the BOD in a timely manner, if it pertains to any legislation.
8. Coordinate and make recommendations to the Board of Registration, through the Board of Directors of ISPLS, regarding revisions to Title 865, as necessary.
9. Provide the BOD with a workable timetable for each charge by February 15, 2007.

ByLaws

1. Review the Constitution and provide the BOD with recommendations for officer term limits.
2. Review bylaws and provide the BOD with recommended improvements, changes, and/or revisions.
3. Review additional bylaws regarding a student chapter's involvement and/or rights of student members.
4. Provide the BOD with a workable timetable for each charge by February 15, 2007.

...continued Page 11

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Geosystems

Committee Charges
...continued from Page 9

Finance and Planning

1. Coordinate with the Executive Director regarding the operation of the office.
2. Prepare the 2007-2008 operating budget recommendation for the approval of the BOD by May 15, 2007.
3. Assist with planning and management of the 2008 convention.
4. Conduct quarterly meetings to discuss, initiate, and to place into action the Society's strategic goals as established on November 5, 2005, by JM Buck & Associates.
5. Assist the BOD with a goal-setting session for the fall of 2007.
6. Submit a preliminary budget and program via e-mail for the 2008 convention to the BOD by April 15, 2007, and the final budget and program outline by the May 19, 2007 meeting.
7. Review committee budget needs and make recommendations for the 2007-2008 budget.
8. Conduct the Executive Director's yearly review by May 15, 2007.
9. Develop an incentive program for sponsoring new members.
10. Provide the BOD with a workable timetable for each charge by February 15, 2007.

Nominations

1. Develop and submit a slate of six candidates for Board of Directors positions and from across the state to the BOD for approval by November 21, 2007.
2. Develop and submit a slate for president-elect (two at a minimum) to the BOD for approval by August 21, 2007.
3. Collect ballots, determine the new representatives, certify the results, submit them to the BOD, and notify all the candidates. Asking those who did not win to run again.
4. Submit a notification for nominations to the *Hoosier Surveyor* committee to be included in its next issue.
5. Provide the BOD with a workable timetable for each charge by February 15, 2007.

COMPLETED CAREERS

Life Member ISPLS Wesley L. Day (82)

Wesley L. Day, PLS, 82, former ISPLS President of New Whiteland, passed away at a local nursing home on November 15, 2006 after a lengthy illness. His wife, Norma, also known to many ISPLS members, preceded him in death. Wes was born in Bicknell, Indiana in 1924, and spent many years a manager of the Union Title/Pioneer Title/Ticor Title plant in Indianapolis. Upon retirement from Ticor, he worked for a number of years as a part-time consultant for The Schneider Corporation. Wes was president of ISPLS in 1973, but his greatest legacy will be his work on the surveying standards. For several years in the mid-1980's Wes, along with ISPLS member Carl Anderson (now deceased) and former ISPLS President James Dankert, developed the original ISPLS Survey Standards which were adopted by the society in 1986. Those standards were subsequently adopted by the Board of Registration in 1988, and yet today provide the majority of the content for what is now Rule 12.

Interment was in Forest Lawn Memory Gardens in Greenwood.

WELCOME NEW ISPLS MEMBERS

Jarrold Albright - Student
Adam Althouse - Student
Christopher Bledsoe - Student
Bryan Bonte - Student
Mark Bonham - Associate
David Butterworth - Life
Joseph Cross - Student
Brandon Deckard - Student
Willie Elliot - Associate
Eric Fujikawa - Student
Melanie Fuoss - Student
patrick Gofourth - Student
Michael Goralski - Student
Daniel Grimes - Student
Luke Hopwood - Student
Chad Krampe - Student
Jerry Martin - Life
Bradley McPike - Student
James Memering - Student
Bret Miller - Member
Jorge O'Neil - Student
Brad Perry - Student
Christopher Porter - Student
Travis Price - Student
John Redash - Member
Joshua Reagan - Student
Matthew Runyan - Student
Steven Rust - Student
Chase Schmucker - Student
Steven Seiler - Student
Michael Shackelford - Affiliate
Jessica Snider - Student
John Stephens - Student
Ben Taylor - Student
Adam Tyra - Student
Joshua Werner - Student
Seth White - Student

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Comments on Professional Responsibility

By: Knud E. Hermansen, PLS, PE, Ph.D., JD

An ongoing debate among professional surveyors focuses on the responsibility of the surveyor toward the client. Part of this debate focuses on where the surveyor's responsibility ends and where the attorney's begins. In other words, at what point does the surveyor stop practicing surveying and begin practicing law. Unfortunately, where the two seem to meet there are no fixed rules or bright lines of professional conduct to guide the surveyor between the practice of law and practice of surveying. As a result, the concept of proper professional behavior varies between surveyors, attorneys, and clients. For example, some surveyors, attorneys, and clients feel the surveyor's professional responsibility should take the form of a "fact-gatherer;" that is, someone who gets information but does not give an opinion. At the other end (some would say extreme end: are the surveyors, attorneys, and clients, who feel the surveyor should be the client's "hired-gun." This takes the form of a surveyor who feels it is their professional obligation to zealously advocate their client's position, right or wrong. There are, of course, shades of these and others with every surveyor having a slightly different opinion.

In order to begin and understand, let's start where most surveyors agree. Most surveyors agree that the surveyor's responsibility in regard to a boundary retracement survey is to "follow in the footsteps of the original surveyor." This maxim can be expanded by saying the surveyor's professional responsibility is to: "identify the location of boundaries, verify the location of boundaries, or help resolve conflict among conflicting boundary locations (i.e., gather data for litigation)." Applying this definition to the three recognized boundary categories, the surveyor's responsibility is to identify, verify, or help resolve conflicting locations among or between record, possession, and ownership boundaries. To further help determine where the practice of surveying stops and the practice of law begins, the following maxims are useful and worth considering:

Surveyors are Trained to Deal With Questions of Fact, not Questions of Law: Surveyors are trained to gather and analyze facts and apply them to a situation using as guides legal principles and rules of law. Therefore, any decision the surveyor makes should be founded on questions of fact (guided by principles of law), not questions of law. An example to show this dichotomy is where one surveyor shows the location of a fence and calls it a possession boundary while another surveyor shows the location of a fence and calls it the client's ownership boundary (based on the surveyor's understanding of adverse possession). The first is an opinion based on the facts, the second involves a factual opinion coupled with a legal assumption the client has marketable, fee-simple title (adverse possession generally requires an action to quiet title in order to give marketable title). The courts have held that boundary location generally involves the application of facts while adverse possession involves a question of law. As one early survey practitioner said in the 1800s: "Old fences must generally be accepted by right of possession; though such questions belong to the lawyer [rather] than to the surveyor."¹

Be Knowledgeable But Prudent: Surveyors should not be reluctant to give an informed opinion to their client – that is why the client has hired a professional. (Most jurisdictions allow the

surveyor to give his or her professional opinion on the location of the boundary even if the opinion appears to answer the ultimate question in dispute.²) However, the surveyor should refrain from opinions or action in areas where the surveyor lacks the training, knowledge, or experience. As a general rule to avoid undue liability and problems, surveyors should avoid acting on or giving unrestricted opinions when: (1) the matter is outside the scope of the contract with the client; (2) the surveyor is made aware of a potential problem that is outside of the scope of the surveyor's training or experience; and (3) the surveyor suspects a problem but may not be sure, does not have, cannot obtain, or refuses to get additional facts.

Start From the Proper Assumptions: Surveyors frequently find themselves working or having to come to a decision in a situation beyond the scope of their professional knowledge because they incorrectly diagnosed the client's problem at the outset. This situation frequently occurs where the surveyor has assumed the client's problem is a boundary dispute rather than a title dispute or vice versa. A title dispute involves an area that is encompassed (or thought to be encompassed) in two or more deeds. Where there should be one common boundary between the parcels, there are, instead, two separate and recognizable boundaries, each, when properly located, reside on land that appears to belong to the other landowner. (In fact, one party has title to the area and the other party has "color-of-title.") Title disputes are normally resolved in favor of the landowner with senior title, although adverse possession and estoppel may provide for a different outcome. On the other hand, a boundary dispute is where there is only one boundary but each party feels the boundary should reside in a different location. This problem is generally resolved by gathering the facts, applying principles of law, and coming to a decision based on the preponderance of evidence.

Keep Your Client Informed: Lack of poor communication between the client and surveyor is the common basis for most complaints to surveyor registration boards. Therefore, one important maxim is to keep the client informed. Professionals should and are generally required to keep their client informed. In some cases, professionals are required to obtain their client's consent before taking certain actions that may be detrimental to their health or their property (Doctrine of Informed Consent). This doctrine in no way suggests that the surveyor act as a hired gun or an advocate for the client's position if it runs counter to the surveyor's professional opinion. On the contrary, the surveyor is expected to perform services in a competent manner; arrive at a professional opinion based on his or her knowledge, training, and experience; and communicate the favorable or unfavorable opinion to the client. As a general rule, the surveyor should inform the client any time the surveyor's opinion, recommendations, or actions: (1) could initiate or increase the possibility of litigation, (2) conflict with or depart from another plausible boundary location, or (3) run counter to another professional surveyor's opinion.

Practice as a Professional: The last maxim is to remember surveying is a profession and the surveyor should act as a licensed professional. A professional is someone who possesses some

...continued Page 24



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Just Say No!

By: Knud E. Hermansen

Long before Nancy Reagan came on the scene and used this phrase to caution children against drug use, I had a friend who used this phrase. His purpose for the phrase was in the form of a directive to all employees who received survey requests from a certain part of the county that had been thoroughly surveyed by a surveyor whose name will remain anonymous. It seems this surveyor couldn't even retrace his own work let alone an earlier surveyor's work. His inability to survey was compounded by his low prices which naturally led him to perform a high volume of worthless surveys for cost conscious consumers. This surveyor had so thoroughly confused the physical evidence in the area that it was almost impossible to survey in the area without finding problems and losing money – hence the directive “just say no” to calls from people in this area.

The purpose for telling this story is to introduce some thoughts and possibly elicit some discussion concerning business practices. The way I see it, there are basically two ways to break even or make some money in surveying: (1) Get paid for a lot of surveys that have a small profit margin or (2) get paid for a few surveys that have a large profit margin. I have come to the opinion that most surveyors would like to operate under the second category but for one reason or another are forced to work within the first category. Before I go too far, let me say that I have no doubt that some surveyors prefer the first category because they enjoy surveying so much that they like to do survey work every waking moment and therefore require lots of volume. Then, of course, there are a few surveyors, bless their souls, that feel that the public deserves inexpensive surveys – so they set out to provide inexpensive surveys, even if they have to operate at a loss or must cut a few corners. For surveyors that fall under either of these two groups, I can only envy your energy or admire your social conscience – and say this article is not for you.

For the rest of the surveyors, let me offer some observations and advice based on my limited experience and my work within other professions:

1. The Law of Supply and Demand: My economics course taught me that in times of high demand for surveyors, surveyors should be able to raise their fees until they reach the point where they receive enough work to keep them busy but not overworked. My observations are that surveyors tend to work themselves toward a heart attack rather than raise their rates. My advice is that if surveyors feel compelled to ignore the laws of supply and demand, they should do what other professions do: (a) if there are too many practitioners – raise your rates, (b) if there is not enough practitioners – raise your rates, (c) if the demand falls – raise your rates, (d) if the demand increases – raise your rates, and (e) when in doubt – raise your rates.

2. Never Say No-Every Request Can be Met if the Price is Right: My observations indicate that surveyors, no matter what their age, seem to have experienced something similar to what my father described as the “great depression.” They can't stand to turn down a potential survey job. Past economic hardship has given them an overwhelming compulsion to say “yes” to any request for a survey. They visualize the unseen property as a flat sandy desert with slats protruding to make the corners. As the survey crew uncovers the last original corner marker (found with the metal detector), the client is so overjoyed she pays the inflated price, quoted over the phone, in cash. Given this vision with the psychological urge to accept any job, my advice is to never say “no” to a potential client that requests a service you are competent and able to provide (contrary to the title of this article) – rather, let the CLIENT SAY NO. What do I mean by this statement? First, consider the fact that you are in business to provide quality work for a profit – use this goal to govern your services and pricing. If a potential client calls and wants a subdivision plat prepared in two days for a closing, then quote a price that would make you happy to drop

everything else and meet this goal. If you have to have pressure, confusion, and overtime payments – make yourself wealthy and happy doing so. On the other hand, if the potential client turns down your service because the price is too steep, you have the satisfaction of knowing you've said yes to their request and avoided having to agonize over a hasty acceptance – because you let the client say “no”.

3. I Know Therefore I Am: I know there's all kinds of talk about how to be professional covering everything from clothes to education. Who am I to say they're wrong. However, my opinion is that a learned professional charges according to the knowledge it takes to perform a service rather than the time or effort it takes to perform the service. (Depose a doctor for two hours and pay \$1000 for his time and you'll come around to my opinion.) My observations indicate that most surveyors do not place much value on their knowledge. My advice is to heed the example given by the often repeated story of the retired engineer, which I'll repeat for the few who are not acquainted with the story: After a factory owner had tried other alternatives to fix a machine and sought several different individuals, a retired engineer who had worked at the factory for thirty years was asked to return to the factory and fix the machine that was malfunctioning. The old engineer entered the factory, went up to the machine, listened and looked for several seconds, then picked up a hammer and struck the machine one time curing its malignancy. Turning around he handed the owner a bill for this services that amounted to \$1000. The owner, knowing the engineer had spent only a few minutes fixing the problem, was outraged and demanded an itemized bill. The retired engineer responded by writing the following: “5 minutes of time....\$1, knowing where to hit.... \$999.” The owner paid the full amount.

4. It Costs More in Court: Rumor has it that someone has stumbled onto an alternative funding source to clean up chemical waste sites? The answer is: Pay a surveyor \$50 and have the surveyor do a mortgage survey for the site. After the surveyor signs the appropriate form (i.e. survey report) saying there are no visible encroachments or clouds on the title, then sue the surveyor for damage sufficient to clean the site. My observations are that many surveyors, for a paltry sum, will thoughtlessly put an all encompassing certificate on their plat or certify a “mortgage” survey without any investigation into physical encroachments that may affect the title. My advice is to carefully review what you are certifying and charge according to the liability involved – you don't make money going to court.

5. Competing by Price is Cheating: My observation is that surveyors can generally be counted on to help each other out – going out of their way to extend professional courtesy – but will practically starve their family trying to under bid each other for work. So what does that tell me? Surveyors are friendly guys and gals who enjoy competition. My advice to surveyors is that if you need some friendly competition among the local surveyors, then compete for the most innovative way to bill a client, best prepared plats, most durable or visible corner markers, most complete survey report, happiest survey crew, most qualified principal of a firm, best educated survey party, best looking office, most continuing education credits per field crew members, fastest service, most profits without sacrificing quality, firm that has the newest equipment, and so on. Surveyors should leave pricing out of the competition so you can take the family out to dinner when you win – or lose.

6. The Tower of Babble: Go into your office and ask your employees to get a piece of paper and pencil. Ask them to: “draw five circles connected” – then compare. Chances are you'll get a slightly different drawing from

...continued Page 24

Initial Point Chapter Pays Tribute to Chapter Member Nelson Prall, PLS-PE

by Mike Davis, Indianapolis

The Initial Point Chapter paid tribute to the memory of Nelson L. Prall, PLS and PE, by having a “Final Point” tribute engraved on his tombstone in Mt. Zion Cemetery in Henryville, Ind.

The engraving reads: “Final Point, Nelson L. Prall, Distinguished Land Surveyor, Civil Engineer, Attorney.” It also includes a compass point and is surrounded by the words, “Initial Point Chapter of the Indiana Society of Professional Land Surveyors.”

“We were striving for a simple, yet elegant, tribute . . .,” said Terry Kendall, a past president of the chapter.

Prall, a charter member and past president (1963) of the ISPLS, was 97 when he died in 2003 from injuries received in a traffic accident as he returned from playing golf. He is buried beside his wife, Bertha, who died in 1984. They were married in 1933.

He was born in Henryville in 1906 and went on to earn degrees in civil engineering and law, attending night school at the University of Louisville to earn his law degree. He became an attorney in 1959.

He originally went to Lawrence County in 1930 as a member of the state highway team surveying for U.S. 50 and Ind. 54. In the Depression years he worked for the Civilian Conservation Corps at Clark State Forest, near Henryville. Later he worked for the U.S. Forest Service, helping type the soils of Orange, Crawford and Perry counties for the Hoosier National Forest.

Prall opened a land survey office in Bedford in 1950, alternating his survey work between Lawrence and Clark counties. He served as Lawrence County Surveyor from 1961 to 1965 and 1969 to 1971. He practiced surveying until 1990, when he retired.

In addition to being an ISPLS charter member, he also was a member of the Indiana State Bar Association and Indiana Society of Professional Engineers. He served many years as chairman of the ISPE and ISPLS Legislative committees, wrote several bills defining the duties of land surveyors, and was a lobbyist for both associations.

He was very active in the Indiana Historical Landmarks group and its plans for preserving Indiana’s Initial Point.

Besides being a land surveyor, engineer and lawyer, Prall was a world traveler and had visited every county in the United States. Explaining this in the Bedford Times-Mail newspaper, he said, “When I was a junior in high school, I decided I would keep a record of every place I had been. Whenever I would travel, I would take a round trip instead of going direct so I could see more counties. When the kids were married, they lived away. When I went to visit them, I took a roundabout trip to get there.”

He also visited every continent with the exception of Antarctica.

His fascination with statistics and figures led him to predict the outcome of high school basketball games. The “Prall System” forecast the winners and margins of victory for girls and boys high school tournament games.

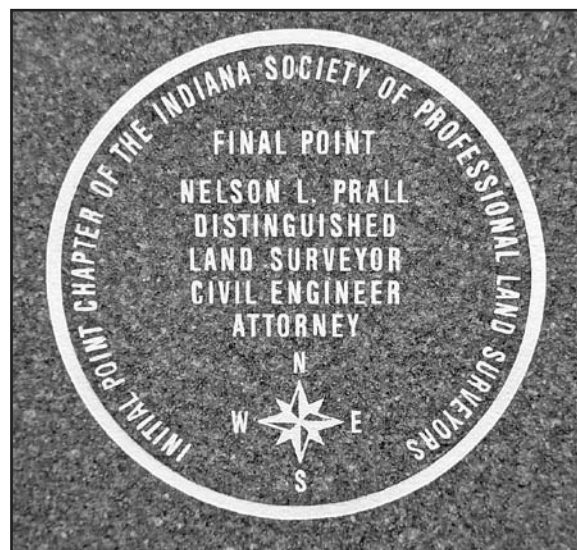
“I love basketball, and this keeps my mind alert,” he said. “The most fun for me is seeing if my predictions come out right.”

Prall had been a season ticket holder at Bedford High School

and then Bedford North Lawrence since 1945. He twice shot 18-hole scores of 76 at Otis Park Golf Course in Bedford and carded a nine-hole score of 54 when he was 94.

“I met Nelson about 1955 when I began my survey practice,” said Joe Jacobi Sr., of Clarksville, ISPLS past president (1966). “It was always a pleasure to follow his survey work. You could always depend on it, and his precision was extraordinary in a time when land was cheap and surveys were often careless.”

(Based on “Completed Careers,” written by Hoosier Surveyor Editor Ken Curtis in the Fall 2003 issue.)



The tombstone of ISPLS Past President Nelson L. Prall and his wife, Bertha, in Mt. Zion Cemetery in Henryville, now includes a “Final Point” engraved tribute from the Initial Point Chapter.



Surveying Licensure – What is it?

NCEES Website www.ncees.org

One of the most important decisions you can make early in your surveying career is to place yourself on a professional course and become licensed as a professional surveyor (P.S.).

Licensure is the mark of a professional. It demonstrates accomplishment of the high standards of professionalism to which the surveying profession subscribes. Consider the following:

Licensure...

- Demonstrates that you've accomplished a recognized standard
- Provides career options and opportunities that might not have been available otherwise
- Serves as a protection of public health, safety, and welfare

How do I get licensed?

Each state and territory varies slightly, but in general, there is a four-step process required to obtain surveying licensure:

Step 1: Education

The education required for surveyors to become licensed varies with each jurisdiction, from high school graduation up to a degree from an ABET – accredited surveying program at a college or university. ABET stands for Accreditation Board for Engineering and Technology, the nationally recognized accrediting organization for engineering, technology, and surveying curricula.

Step 2: FS Exam

The first exam in the licensure process is the Fundamentals of Surveying (FS). This exam is offered in April and October every year. Most students take the exam right before college graduation or soon after while the technical information they've studied is still fresh in their minds. Once you pass the exam, you are classified as an intern, also known as Surveying Intern (SI).

Step 3: Work Experience

After passing the FS exam, you will continue your journey toward professional licensure by gaining surveying experience. Many jurisdictions have specific requirements about the type of experience you need to gain. Most require that you gain experience under the supervision of someone who is already licensed, and that your experience involve increasing levels of responsibility. Once you begin work, contact your licensing board to find out what experience is needed and talk with professional surveyors in your company to find out how you can gain this experience.

Step 4: PS Exam

Once you have gained the appropriate experience required, you can take the second exam in the licensure process, the Principles and Practice of Surveying (PS). This exam is offered in April and October.

After completing all the steps in the surveying licensure process

KEN CURTIS RETIRES FROM HOOSIER SURVEYOR EDITOR

The following letter was received from Ken Curtis, ISPLS Hoosier Surveyor editor:

January 9, 2007

Dear Dianne

When Ed Sweetland, ISPLS president-elect, called last week concerning my continuing as editor of the *Hoosier Surveyor* for another year, I told him I had been contemplating retirement from the position for some time and that I thought the time had arrived.

It really has nothing to do with my health, as it is relatively good considering that, at 81, none of my body parts seem to work as good as they used to! But, as I said as I resigned from the State Board of Registration three years ago, it was time that someone younger and more active in the profession should take over. Also, I have just recently chosen to go to an inactive status as a registered professional land surveyor.

I have enjoyed the fifty some years as editor (exception when Gary Kent was editor from 1982 to 1988) and will continue to submit some articles that might be used in future issues. As needed, I am willing to help in proofreading - which I think I'm rather good at! As you well know in the past you have really had the responsibility for completing the newsletter and my involvement has been to a lesser degree.

In 1977-78 we received the Excellence for Professional Journalism Award from ACSM. In the last thirty years the newsletters of the many states societies have very notably increased in size and quality and some states have "professional magazines" rivaling the Professional Surveyor, the Point of Beginning (POB), and the American Surveyor. I'm not sure that ISPLS needs to strive to compete in this regard, but rather maintain the newsletter as a source of information and communication to fellow INDIANA land surveyors.

It has been great working with you through the years and I wish you the best in future ISPLS publications!

You have my permission to publish this "retirement letter" in the next issue of the *Hoosier Surveyor* and elsewhere. My very best regards.

Ken Curtis KenSurMap@aol.com

– education, experience, and examinations – you are eligible for licensure by your licensing board.

Once you are granted licensure, you may use the distinguished designation "professional surveyor," or P.S. Some jurisdictions use other titles signifying the same expertise, for example, Professional Surveyor and Mapper (P.S.M.), Land Surveyor (L.S.), or Professional Land Surveyor (P.L.S.).



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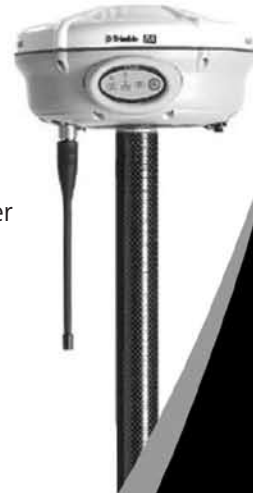


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In order to share the latest news and information about MWRTK.net, we've created a new website! Please visit it often to learn more about the features, services and benefits that will soon be available to you.

www.mwrtnk.net



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Beware of Price Fixing!

By Knud E. Hermansen, P.L.S., P.E., Esq.

Recently, the Department of Justice Antitrust Division entered an agreement, with one Northwest Chapter of the Arkansas Society of Professional Surveyors where the Chapter agreed to pay a fine of \$60,000 for violation of the United States Code. The indictment charged five surveyors and the Chapter with a conspiracy “to raise, fix and maintain the price of lot, and block surveys in northwest Arkansas.”

The indictment went on to charge that the defendants met, discussed, reached a price agreement, raised the price to a minimum of \$300 per survey, received compensation in that amount, and generally affected interstate commerce. They were charged under 15 U.S.C.A. § I, known as the Sherman Antitrust Act, which states in part:

15 U.S.C.A. § I. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce...is declared to be illegal. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine...or by imprisonment...in the discretion of the court.

On 26 February 1993 a plea agreement was filed which provided in part that the Northwest Chapter of the Arkansas Society of Professional Surveyors agrees to enter a plea of guilty and pay a fine of \$60,000. In return, the United States agrees to drop all charges against the individual surveyors.

Admittedly there was no trial and at least one of the defendants believes that had there been a trial they would have been found innocent of the charges. Conjecture aside, the monetary fine, attorney fees, course costs, loss of reputation, anxiety, and loss of business exacted a heavy toll from the defendants.

Furthermore, the problems are not behind the individual defendants since the Arkansas Board of Licensure has started an investigation to determine if there are grounds for professional discipline. The bitterness and discord among the Northwest Chapter members may cause the Northwest Chapter irreparable damage.

For survey practitioners, there are several points to be learned from the indictment and subsequent plea agreement. Perhaps the most tangible is that guilty or innocent, any charge of price fixing will cost the surveyor legal fees, court costs, anxiety, lost work days, loss of reputation, and lost business. As a result, surveyors should be aware of the danger and avoid actions, conduct, or words that violate the Sherman Antitrust Act.

Surveyors should not fix fees in concert with other practitioners or take part in any activities that establish by written, verbal, or implied consent a minimum fee for professional services.

As a general rule, the lessons learned from the Arkansas Chapter’s experience does not mean that surveyors cannot get together to discuss fees, salaries, or prices – so long as such discussion is not meant or does not cause prices or fees to become artificially fixed in concert or conspiracy with other practitioners. Fees should be established independently of other practitioners in a competitive, free-market place environment.

For example, surveyors can establish reasonable and justifiable standards and procedures that may eventually cause fees to rise. Surveyors can participate in information surveys that tabulate high, average, and low fees for specific services. For educational purposes, surveyors can discuss how to best estimate or apply costs, overhead, and profit margins in order to determine what fees to charge for what services.

Furthermore, surveyors can discuss various methods to estimate their fees (e.g. area, number of corners, linear feet of boundary, etc.). In fact, all of these examples may actually help prevent scrutiny by the justice department if the information is sought and used by survey practitioners to underbid their competitors.

Obviously, there is no fine black line. There are warning signs. One obvious warning sign is when fees are the same among all local practitioners for a particular service. Another warning sign is where there is some form of communication among practitioners that results in fees being raised in apparent concert among a group of practitioners.

There are also some safety guidelines that surveyors can adhere to in order to prevent price fixing. First, understand how to determine a fair and reasonable fee for services. Professional practice is not for the sake of making a killing at the expense of the public, rather the purpose is to provide a quality service for a reasonable price. Determine and be prepared to justify your fee based on an accurate and reasonable analysis of costs, overhead, profit, and demand within a free marketplace environment.

Do not base a fee solely on a competitor’s fee. Bargain and reach an agreement with the client to determine the fee and not with the competitor. Fair competition is healthy among knowledgeable and ethical professionals. In this regard, attend or encourage your employees to attend the many excellent seminars on business and ethics sponsored by ACSM and State professional societies.

Knud Hermansen is a professional land surveyor, professional engineer, and attorney at law in several states. He operates a consulting firm in Old Town, Maine and is a faculty member at the University of Maine, Orono.

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Peace Metal Monument Nominated to Berntsen Commemorative Book

by Mike Davis, Indianapolis

Terry Kendall, PLS, Floyd Knobs, Indiana, knew just what to recommend when he learned of Berntsen International's request for information about a unique, attractive or historically significant survey marker from Indiana to be included in a commemorative book.

He nominated the Peace Medal monument set by the Initial Point Chapter of ISPLS in 2003 at The Falls of the Ohio Interpretive Center in Clarksville, Ind., as part of the bicentennial celebration of the Lewis and Clark Expedition.

The engraving on the 12-inch diameter brass marker is taken from peace medals commissioned by President Thomas Jefferson. As Lewis and Clark crossed the country, Kendall noted, they presented the coin-sized medals – called “marks of friendship” by Jefferson – to American Indian chiefs and warriors.

The side of the Peace Medal replicated on the marker is inscribed “Peace and Friendship” and shows the image of clasped hands with a crossed tomahawk and peace pipe above them. The medal's other side is inscribed “Th. Jefferson President of the U.S. A.D. 1801.”

“Lasting Impressions,” the book edited by Berntsen's Rhonda Rushing, does include mention of the Corps of Discovery Peace Medal, but it features the first survey marker of the series, placed on Jan. 14, 2003, by the National Geodetic Service on the west lawn of Jefferson's home, Monticello, in Charlottesville, West Virginia.

“I was happy to be involved in both the book and the whole Lewis and Clark project,” Kendall said, looking back on the experience.

His nomination package included this description:

On July 9, 2003, the Initial Point Chapter of the Indiana Society of Professional Land Surveyors set a monument marker at The falls of the Ohio Interpretive Center in Clarksville, Indiana. The marker commemorated William Clark's recruitment of men from Kentucky and Indiana for the Corps of Discovery, later known as the Lewis and Clark Expedition, who braved many hardships in their trek to the West Coast.

President Thomas Jefferson's dream of national expansion and development was realized following the Louisiana Purchase. On this trip Lewis and Clark actively surveyed and mapped their daily positions. By the end of the expedition they had successfully charted large parts of the Rocky Mountains, the Great Plains and the Columbia River watershed.

Two hundred years later, commemorative markers were placed at National Signature Sites along this Lewis and Clark National Historic Trail during the Bicentennial Celebration of the Lewis and Clark Expedition. The retracing of the Corps of Discovery route started in 2003 and will continue until 2006.

Aside from their historical and commemorative significance, these markers also will provide surveyors with a link to highly accurate positioning via the satellite-based global positioning system.

The exact positions (within two centimeters) of the markers in the series are determined through GPS sessions and will become part of the National Spatial Reference System. This coordinate system defines latitude and longitude throughout the United States.

NGS Data Sheet DH 2918 provides information on the Corps of Discovery Clarksville point at the Interpretive Center. It is at latitude 38 degrees 16 minutes 33.71011 seconds (North) NAD 83 (1997), longitude 85 degrees 45 minutes 47.04373 seconds (West).

The Peace Medal was installed on July 9, 2003, at The Falls of the Ohio State Park at the west end of Riverside Drive in Clarksville, Indiana. The Initial Point Chapter of the Indiana Society of Professional Land Surveyors set the monument marker in the park grounds overlooking the Ohio River fossil beds at the falls. Fossil beds are exposed when the river is at low stage, usually during the summer.

In the background is a statue of Captain Meriwether Lewis and Captain William Clark shaking hands when they met to go on their journey. In his book, “Undaunted Courage,” Stephen Ambrose states “when they shook hands, the Lewis and Clark Expedition began.”

Another smaller marker was later dedicated on October 25, 2003, at the site of General George Rogers Clark's cabin, which is also part of The Falls of the Ohio State Park. It is below a historical plaque titled “Lewis & Clark Expedition 1803-1806.” NGS Data Sheet DH 2913 supplies information on the point. It is at latitude 38 degrees 17 minutes 14.62546 seconds (North), longitude 85 degrees 46 minutes 36.71093 seconds (West).

This marker is located at the west end of Harrison Avenue in Clarksville, which was founded in 1783 by General George Rogers Clark, who was an older brother of Captain William Clark. Our town was the first American settlement in the Northwest Territory.

The dedication was conducted by master of ceremonies Victor McCauley, who called out the names of the people involved in setting the Peace Medal. J. Ross MacKay of the National Geodetic Survey, who is the Kentucky Geodetic Advisor for that organization, presented a replica of the Peace Medal to each member of the group. The Peace Medal is one of those being placed at the 12 National Signature Sites visited by the Corps of Discovery.

All the credit for this venture should go to the members of the Initial Point Chapter of the Indiana Society of Professional Land Surveyors. The setting of the marker was done in off-duty hours from their survey businesses. (Initial Point Chapter members taking part were Steve Marshall, Eric Rider, Terry Kendall, Raymond (Andy) Granger, Kirk McCauley, Victor McCauley, Brian Jackson, Harold Hart, Frank Ballintyn and Mark Gardner.)

This reenactment was planned and carried out by the Clarksville Historical Society. More than 500 people attended the event, along with the governor of Indiana and other dignitaries. The following day, October 26, 2003, saw the send-off of the core group of the Lewis and Clark Corps of Discovery Reenactors in their keelboat and two pirogues. They headed downriver to Fort Massac on their way toward their winter camp near St. Louis.

(Note: “Lasting Impressions; A Glimpse into the Legacy of Surveying” is available from Berntsen International (800-356-7388) for \$37.95, plus approximately 10% tax and shipping. It is also sold on eBay and through amazon.com. To read excerpts from the 192-page hardcover book, log on to www.lastingimpressionsbook.com)



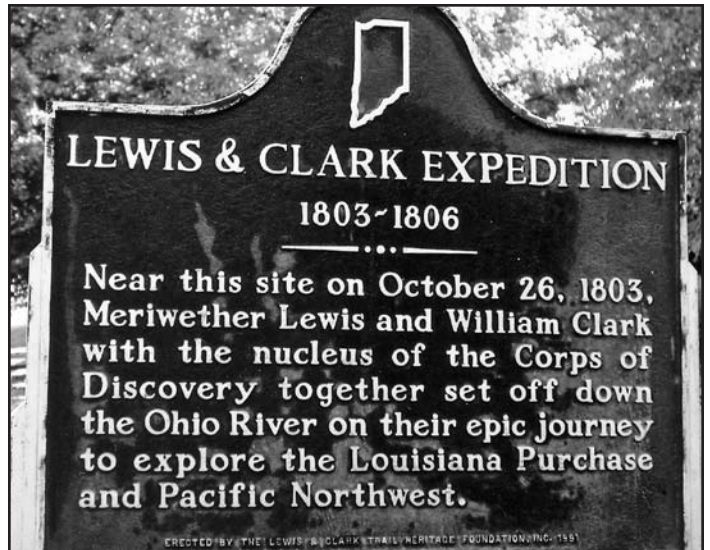
12-inch Peace Medal Monument at The Falls of the Ohio Interpretive Center in Clarksville, Indiana.



Near the Peace Medal Monument are statues of Captain Meriwether Lewis and Captain William Clark shaking hands when they met to go on the journey.



ISPLS Board member Harold Hart makes a GPS observation on the location of the Peace Medal Monument.



Indiana Historical Plaque by smaller maker placed at the site of General George Rogers Clark's cabin at The Falls of the Ohio State Park.

particular knowledge and skill that is beyond the ken of the average member of the public. Licensing of professionals is done to compensate for the public's lack of knowledge and thereby protect the public by insuring that any person offering his or her professional services has the requisite minimum knowledge and skill to provide professional services in a competent manner. In theory, licensing should eliminate the concept of caveat emptor that is generally paramount when members of the public deal with peers and tradesmen.³

With these comments in mind, hopefully it should be easier to determine the surveyor's professional responsibility and define where the practice of surveying ends and the legal practice begins. In all cases of doubt or where legal problems could be involved it is always good practice to recommend (in writing) that the client consult with an attorney.

References: 1. Gillespie, *A Treatise on Land-Surveying* at page 155 (Appleton & Company, New York, NY: 1881)

2. See e.g., *Koenig V. Skaggs*, Missouri, 400 S.W.2d 63, 67 (1966) also see *King v. Browning*, 246 Ga. 46, 268 S.E. 2d 653, 655 (1980)

3. Rona, *The Rise and Fall of the Learned Professions*, at page 6 (College of Engineering, West Virginia University, Morgantown; 1977)

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Why, Why, Why??

- Why do we press harder on a remote control when we know the batteries are getting weak?
- Why do banks charge a fee on "insufficient funds" when they know there isn't enough money?
- Why does someone believe you when you say there are four billion stars, but then he checks when you say the paint is wet?
- Why doesn't glue stick to the inside of the bottle?
- Why do they use sterilized needles for death by lethal injection?
- Why doesn't Tarzan have a beard?
- Why does Superman stop bullets with his chest, but then he ducks when a revolver is thrown at him?
- Why do Kamikaze pilots wear helmets?
- Whose idea was it to put an "S" in the word "lisp"?
- Why is it that no matter what color bubble bath you use the bubbles are always white?
- Is there ever a day that mattresses are not on sale?
- Why do people constantly return to the refrigerator with hopes that something new to eat will have materialized?
- Why do people keep running over a string a dozen times with their vacuum cleaner, then reach down, pick it up, examine it, then put it down to give the vacuum one more chance?
- Why is it that no plastic bag will open from the end on your first try?
- How do those dead bugs get into those enclosed light fixtures?
- Why is it that whenever you attempt to catch something that's falling off the table you always manage to knock something else over?
- In the winter why do we try to keep that house as warm as it was in summer when we complained about the heat?

Reprinted from The Kansas Surveyor December 2006

each employee even if the instruction is stated in these simple terms. This minor exercise should give you the reason for using contracts. Contract documents have little to do with trust, they're used to foster understanding and prevent misunderstanding.

7. The Litmus Test: Surveyors are such trusting souls. They frequently do all the work for the client then wait and wait for payment and in some cases never receive it. My advice is to ask for a retainer to test the client's sincerity. If they balk at paying a retainer or don't have the money at the time, there is probably a very good chance the same excuses or comments will occur when the final bill is tendered.

8. Invest in Your Spouse: Surveyors lament about how difficult it is to get good help at a reasonable price. After you invest all the time in training good help, they get their license and leave. As a result, many surveyors are forced to use their spouse in the office or field. My advice, as I indicated in another article on the subject, is to send the spouse to college. Even if he or she doesn't particularly like surveying, imagine the help of a two – or four – year degree in business management, accounting, civil engineering, or computer science would provide. If they do eventually become licensed as surveyors, imagine the relief you'll have if you get sick or want to go back to school yourself.

9. You Done Good: I apologize for the improper English but I ask you to remember the point. Pay is not the only thing that matters to an employee. We're all human and need some encouragement. My advice is to make a point of offering compliments for good work. For a good job, get a gift certificate and send the employee and their spouse to supper after work sometime.

10. Those that seek knowledge are knowledgeable: My experience has been that the best employees are the ones that are always willing to learn, to spend extra time at the office writing a computer program or to learn a new technique on the equipment. Consider encouraging these and all employees to attend seminars and schools. If you don't have enough money to support seminar attendance, then consider paying them an extra hour every week to sit down and study surveying at the office or give in-house training sessions on a regular basis and time.

These observations and advice are what I refer to as my ten commandments of business practice. (It has such an authoritative ring when I use ten of them.) While there is some jest in these comments, they have provided some good guidance for me over the years. Perhaps some of them may help you.

Knud is a licensed survey, engineer, and attorney at law. In addition to consulting work, Knud teaches at the University of Maine in the Surveying Engineering Technology program. (Reproduced with written permission from Knud Hermansen)

Are Your Employees Entering Confined Spaces?

By Ronald E. Koons, RoSaKo Safety

After our presentation at this year's convention several of us got into a discussion about when someone is actually entering a Confined Space. The next week during a presentation for the Wisconsin Annual Surveyors Institute the exact same question came up during a presentation on Confined Spaces. It sounds to me like a good topic for this article. Many companies have a policy that employees are not to enter any Confined Spaces. Then jobs are given to field crews that almost beg for someone to enter. If your employees are entering Confined Spaces then you have not only a liability, but a responsibility to give them the requisite knowledge to perform their job safely. We probably need to start by covering the basics for defining Confined Spaces (CS) and Permit Required Confined Spaces (PRCS).

A Confined Space is defined as:

- a) An area which has adequate size and configuration for employee entry.
- b) An area that has limited means of access or egress.
- c) An area which is not designed for continuous employee occupancy.

A Permit Required Confined Space:

- a) Must meet the criteria for a Confined Space.
- b) Must have the potential for: Hazardous Atmospheric Conditions (Toxic, Flammable, or Asphyxiating), or Engulfment, or Hazardous Configuration, or any other recognizable hazard.

The obvious normal PRCS's that a surveyor may come across would include both sanitary and storm manholes, vaults, lift stations, pits, inlets, and other underground structures. No one seems to question that if a worker climbs down into a 20' deep manhole that they have made a Confined Space entry. The first question that arises is if it is a *Permit Required Confined Space*. As you can see by definition there has to be some hazards associated with the entry for it to be considered a PRCS. However, you can't rule out any possibility when planning the entry. Could there be a lock of oxygen? Several years ago two surveying employees in Ohio died because of a lack of oxygen in a 12' deep manhole. It was my understanding that the system wasn't even connected to the main and had no inflow. There just wasn't enough oxygen to support life at just 12' down. More than likely there was another gas that displaced the oxygen in this case, but that is just conjecture. Could there be Carbon Monoxide? If a field vehicle is left running and a storm sewer inlet is close, there could be a direct path for the CO to enter and overcome an entrant. In an active system we never know what a business or even homeowner might put into the sanitary or storm system. If that flow hits just when someone is in a sewer there could be an instant disaster if preparations for rescue haven't been made in advance.

Let's try now to clear up the original question about when the entry actually takes place. The generally accepted definition at

OSHA is that entry takes place "when any portion of your body breaks the plane of the confined space". That could be a finger, your foot, an ear, heck even your nose. In a manhole the plane of entry is generally accepted to be the point at which the lid sets into the receiver. So keep in mind that your entire body or even a major portion of your body doesn't actually have to be in the confined space for an entry to occur. Just sticking a flashlight into the space while lying on your stomach is definitely a confined space entry. If there are hazards present, then you will have to make certain your employee is protected. If you are simply opening the manhole lid and observing the condition from above by sticking the flashlight into the space then you will first have to determine if there are any gas hazards. That can be done in most cases by taking gas readings even before the lid is removed by putting the probe into a vent hole. If no vent holes are present then you may have to move the lid just a small amount to get the probe into the area for readings. At any time that an employee breaks the plane of the Confined Space you must take all precautions just like you would, if you knew there was a hazard until the point you can prove that there isn't a hazard.

So now we know that breaking the plane of a Confined Space with any portion of our body is when entry occurs. Or is it? Several years ago a worker was checking on the level of a raw sewage tank. There was evidently something wrong with the level indicator. A manhole lid was removed and the worker simple bent down to look into the tank. No entry was planned at that time! What the worker didn't know was that the vent for the tank had been blocked.

When the lid was removed vast amounts of gas came out of the tank. This caused the worker to pass out and fall into the tank. The cause of death was from drowning in the raw sewage. OSHA cited the company for Confined Space violations. So in this case OSHA determined that if the Confined Space can harm you on the outside the

Confined Space regulations still apply!

Taking this a little further might even confuse you more. I have heard some definitions of entry that say if any portion or extension of your body breaks the plane of a confined space that entry has occurred. This might be critical for surveyors because many times a rod is placed into a manhole to determine an invert of the structure. From our previous example you can certainly see how just being above the manhole could create a serious situation. In any case that has to do with determining if the Confined Space standard applies it is almost a slam dunk for OSHA, if there has been an injury as a result of the Confined Space.

So how do we protect our employees even if an entry is not planned? I always recommend that gas readings be taken even if you are just opening the Confined Space and don't really intend for a human to enter. That will let you know up front, if there are any potential hazardous gases that may cause a problem. By the way, has entry occurred when you use a pick to pull up the manhole lid? Think about it!

"The generally accepted definition at OSHA is that entry takes place "when any portion of your body breaks the plane of the confined space".

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2007 Indiana GIS Conference, Crown Plaza Hotel and Conference Center, 301 S. Illinois Street, Indianapolis.

March 9, 2007

Indiana State Board of Registration for Land Surveyors meeting, Room W064, Government Center South, Indianapolis

March 24, 2007

ISPLS Board of Directors meeting, Headquarters, 9:00 a.m.

April 13, 2007

ISPLS Seminar, Essenhaus, Middlebury, Indiana, Speaker: Gary Kent, Topic: Rule 12 and the 2006 Revisions to the Indiana Survey Standards. 6 CEH Mandatory

May 4, 2007

Southwest Chapter ISPLS Seminar, Vincennes University, Speaker: Gary Kent, Topic: Rule 12 and the 2006 Revisions to the Indiana Survey Standards. 6 CEH Mandatory

May 11, 2007

Indiana State Board of Registration for Land Surveyors meeting, Room W064, Government Center South, Indianapolis

May 19, 2007

ISPLS Board of Directors meeting, Headquarters, 9:00 a.m.

July 11-13, 2007

21st North American 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

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