Recently, a fellow surveyor asked me the following question “Why does no one ever ask who surveyed that new building, bridge, park, road, etc.”

True enough, the public is often (if not typically) aware of the architect who designed a structure, or park, and the engineer who designed a bridge, scenic highway, or site plan. They are even likely to know the contractor who built it!

Meanwhile, the surveyor who provided the data for other professionals to design, and the contractor to build, remains anonymous!

Throughout history, the surveyor (with a few notable exceptions) has been in the background of the development of our country. All the while, being a vital component of the Backbone of Society!

Why is this the case?

Certainly, we surveyors don’t have to tell each other of the importance of the work of our predecessors, and indeed of ourselves. We are proud of our heritage. We worship at the altar of Mount Rushmore where our surveying heroes Washington, Jefferson, and Lincoln are immortalized (along with that “other guy”).

In fact, we revel in the self-shared glory of considering ourselves to be the “Last of the Rugged Individualists”. We consider ourselves to be that honest, and true, and selfless group of professionals who live by our own code of honor that can result in financial hardship to ourselves while we are in service to our fellow citizens.

In our interaction with other professionals, we are often expected to correct their work (or at least bring errors to light), and to hold the hand of the contractor to avoid costly mistakes, or catastrophe!

Surveyors have traditionally been the buffer

See Unsung Heroes, Page 10

John Pierce Offers Insight For Men After Battle With Cancer

A voice of experience is a voice worth listening to …

When doctors diagnosed John Pierce, 71, with prostate cancer in August of 2008, he knew the battle he was facing. His father had died of the disease.

“Men really need to be aware of their
Roger W. Hart, RPLS #4484

“I’ve got good news and bad news” goes the classic line. The same is true when it comes to the safety of land surveyors. The good news? According the U.S. Bureau of Labor Statistics, Surveying & Mapping ranks as one of the safest professions in the country. The bad news? In making that determination, those government bureaucrats are including all those old, fat guys that never leave the office.

The truth is that a lot of land surveying takes place at two of the most dangerous workplaces in the country: in and along roadways, and on construction sites. The key to staying safe out in the field is to observe the three P’s of Field Safety:

- Prepare for a safe work environment.
- Plan methods that maximize crew safety.
- Perform according to the Safety Plan and Work Rules.

Prepare for a safe work environment.
Creating a safe work environment starts at the office long before the survey crew sets foot on the jobsite.

Step One: Personal Safety.
Before the vehicle is loaded the supervisor should make sure each member of the crew is dressed appropriately. This doesn’t refer to the slogans on their t-shirts, that’s another topic. Dressed appropriately means things like pants that cover the entire leg, footwear suitable for the jobsite, a hat to protect from the sun, work gloves, and perhaps rainwear.

Step Two: Crew Safety.
Once everyone is dressed for safety it’s time to make sure the field crew is fully equipped with all necessary safety equipment. These items are more specific to the jobsite and may include basic safety equipment such as brightly colored vests for working in or near traffic, a hard hat for construction sites, dust masks, safety goggles, hearing protection, and a fully stocked first aid kit.

Step Three: Special Situations.
Lastly is equipment for especially hazardous situations loaded onto the vehicle. Extra traffic cones, signs, barricades, flashing lights. A crew may not need these everyday, that’s why preparation is so important. Those shiny new traffic cones don’t protect anyone back at the office.

Plan methods that maximize crew safety.
If more time were spent planning for field crew safety there would be a lot fewer accidents on the job. The first reason is that safety planning forces a field crew to assure that all the necessary safety equipment is in the vehicle.

The second reason planning is so important is that it forces a crew to consider potential hazards on the site so they can develop safe procedures. Some questions to ask before heading out to the jobsite include:

Is there a certain time of day when the crew faces increased safety risk?
This doesn’t just mean avoiding working along the freeway during rush-hour. There are other locations that can create their own hazards at certain
times of day. Schools see a huge surge of traffic on nearby streets when the bell goes off. If the school in question is a high school with teenage drivers the risk factor grows exponentially. Nearby factories can create similar situations when a shift ends. Another consideration might be the sun. It might be best to avoid surveying along an east-west road early in the morning or late in the afternoon when the sun may be shining directly into driver’s eyes.

Is there a time of day when crew safety is enhanced?
This most often occurs on construction sites. Some cities have noise restrictions that govern the hours when heavy equipment can operate. By working during those hours when the heavy equipment can’t, the crew can work much more safely. When crews are not forced to keep one eye on a bulldozer they often work much more productively as well.

Do certain areas of the project pose a greater risk to crew safety?
This may be a snake-filled swamp or a suspected crackhouse. Each job will be different. The important point is to consider the potential perils and develop a Safety Plan to minimize them.

In most survey offices the day starts out pretty much the same. The field supervisor instructs the crews on the day’s projects, how they are to be done, what steps to follow, and what to do if something goes wrong. Making planning for the crew’s safety a part of this routine will go a long way towards avoiding an accident.

Perform according to the Safety Plan and Work Rules.
Eleanor Everet, said, “For safety is not a gadget but a state of mind.” Eleanor never did any land surveying but her words should be the motto of every surveyor. The most important piece of safety equipment is not an orange vest, it’s the brain. All the preparation and planning won’t do a bit of good if the field crew isn’t committed to maintaining a safe work environment.

Every firm should have a basic set of safety Work Rules. These cover instructions such as using traffic cones when near roadways, wearing high-visibility vests, etc. Things that shouldn’t need to be said, but should be said anyway. Besides general safety rules, some projects will require a specific Safety Plan in order to minimize risk to the field crew.

**BUILD A SURVEYOR...Part I**

**Become a Proctor for a CST Exam:** Follow in the footsteps of Roger McDonald at Lone Star College-Montgomery. Roger has vowed to proctor at least three CST exams every year. His first examination date for 2009 is April 18, and he has designated July 11 and October 10 as well.

Roger is setting the pace and would like to encourage you, your chapter or your business to sign up, commit and sign on to provide in your area the opportunity to create and encourage the growth of a “professional” surveyor.

You can host an exam on the same dates that Roger has chosen or you can set your own. You can host three, or you can host one or four. It’s your call.

The deadline for application to sit for a CST exam is six (6) weeks prior to the exam date. Seems like too far out? By applying 6 weeks in advance through TSPS, applicants pay the same amount, but TSPS benefits with a discount for handling the processing of the paperwork. And, if the applicant is a TSPS member, they receive a discount. It’s a win-win for everybody.

The dates and locations for the 2009 Certification testing are located on the TSPS website calendar. The proctor application should be sent as soon as possible, in advance of the test applicants due date. When you submit your application to be a proctor, your location will be added to the calendar.

Again, the application and information about the program are on the TSPS website located at [www.tsps.org](http://www.tsps.org) under ‘Education’; follow the link to GET CERTIFIED, or contact Brendan@tsps.org.

**The future of our profession is with those that are coming up through the ranks from entry level. Give them a better sense of confidence in their work and in turn, give yourself a well trained and more professional employee.**
TSPS Board of Directors approved their 2009 budget during February’s First Quarterly meeting, and committees met to hammer out agendas and ongoing projects for the state association. Be sure to check out the March issue of The Texas Surveyor for the full line-by-line 2009 state budget approved by directors.

Legal Counsel Mark Hanna led the Government Affairs Committee Meeting Feb. 7, and members were updated about pending legislation and other items of interest out of the 2009 Legislative Session that may affect the land surveying profession in Texas. The committee discussed plans for GIS Disclaimer legislation; attempts to make confidential names in cases deemed frivolous complaints against land surveyors; increasing Continuing Education Units requirements for surveyors; (to 16 CEUs); Sunset Reviews of TxDOT and the Texas Dept. of Insurance; a sales tax bulletin from the State Comptroller’s office to clarify what surveying services are taxable; margin tax revisions; and past attempts to repeal the sales tax on land surveying services.

Get a complete update in the March issue of The Texas Surveyor on happenings at the Texas Legislature, including the status of proposed legislation related to bidding government work.

TSPS President Michael Parker presided over a full room at the afternoon Board of Directors meeting, and he stressed his commitment to communication this year. “Ideas you have, that are good or bad, need to be passed on – from the local chapter member all the way to the top,” Parker said.

TSPS had 207 new members in 2008 … nearly the same amount as 2007, according to Executive Director Anne Glasgow. She also briefed the directors on the March Symposium in Waco; final statistics from the Cruise Convention last October; and the 2009 TSPS Strategic Planning session, to be held in August at the Airport Hilton in Austin.

Course & Speaker Development Committee Chair Fred Crawford told directors 10 new courses are nearing completion. Over the last six years, more that 60 course developers have received training, and 37 TSPS members have participated in Speaker Development training.

Education Committee Chair L.A. “Bud” Thompson said his committee hopes to conduct its first online Beta course by the end of the year, bringing TSPS into the online education market. Texas has also become #2 in the nation in the number of CST certifications awarded to Texas paraprofessionals through the CST testing program.

State efforts to directly help Texas land surveying students resulted in nearly $11,000 in scholarships being awarded by TSFI in 2008. Attendance at the June 13 board meeting is critical to the TSFI coffers as the annual Ray Wisdom BBQ and Auction is held in conjunction with the Second Quarterly Meeting. Proceeds from the auction go directly toward scholarships for land surveying students, and members should coordinate with their local chapters for auction item donation ideas. And don’t forget your wallets, too, and bid on some of the unique and high-end merchandise.

Surveying work at sites that are very hazardous, such as along streets or on construction sites present their own unique risks. Here are some tips for those dangerous situations:

**On the Road:**
- Maintain at least six feet of space between traffic and the work area.
- Whenever possible, face moving traffic.
- Avoid sudden movements that might confuse a motorist.
- Minimize crossing traffic lanes.
- Use the survey vehicle as a barrier between traffic and workers.
- Have one worker whose only duty is to provide immediate warning to coworkers about imminent hazards.
- Use signs, flashing lights, and traffic cones.

**On the Construction Site:**
- Wear traffic vest and hard hat.
- Be extremely cautious around equipment with limited driver visibility.
- Make eye contact with the operator before walking in front of or behind any piece of equipment.
- Whenever possible, use lookouts.
- Suspend survey operations when uncontrollable hazards develop.

Here is one last piece of advice from another lady that never did any surveying either. When tempted to take shortcuts in safety procedures...
North Texas Chapter 2
Check out the many happenings in the Fort Worth area Chapter with this detailed report:

East Texas Chapter 4
Held a joint meeting October 7, 2008 with members of Chapter 23 near Ore City, Texas. Officers from both Chapters were installed at this meeting by TSPS President Michael Parker. A scheduled January 29, 2009 meeting, at Tyler Junior College, was to include speaker Michael Parker.

Dallas Chapter 5
More than 50 Dallas Chapter 5 members attended their January meeting, which included presentations by TSPS President Michael Parker and TSPS Government Affairs Chair Pat Smith, who alerted attendees to potential legislative issues in the 2009 Legislative Session in Austin. Learn more about Chapter 5’s activities and take time to check out their ever-growing chapter website.

Deep East Texas Chapter 6
Chapter 6 concluded a busy 2008 by revising their scholarship criteria, and 3 scholarships were awarded to three applicants for the fall semester that is was already underway.

Gulf Coast Chapter 9
Growing land surveying education in Houston colleges and universities continues to be a focus of this very active chapter ... but that just scratches the surface. Check out the latest Chapter 9 report to TSPS and be sure to visit their professional website. Make sure you check out their newsletter section and catch up on all things land surveying in the Houston-Gulf Coast area.

Alamo Chapter 11
Chapter 11 is sponsoring a RTK GPS Basics Seminar for the 2009 symposium, prepared by Chris Nelms and Trisha Lund. The beta session has held Dec. 13, 2008 in the office of AECOM, San Antonio. Shannan Carrozza was the moderator. Learn more about Alamo Chapter 11 activities.

Coastal Bend Chapter 12
November’s meeting included a presentation from Dr. Stacy Lyle on free and publicly available GIS programs and data.

On December 20, Chapter 12 sponsored a CEU Seminar hosted by Stacey Lyle and featuring Garey Gilley of the Texas Board of Professional Land Surveying. The topic was “Survey Challenge: Defending Yourself Against a Board Investigation”. The seminar was quite informative, and received excellent reviews.

Capital Area Chapter 13
TSPS representative to the Texas Geographic Information Council, Jack Avis, was January’s Chapter 13 speaker. Mr. Avis discussed the past relationship between surveyors and GIS professionals. He explained that past GIS “accuracy” was looser than it is now but that surveyors are using GPS more and more, GIS has become tighter and an invaluable tool for the surveyor. He suggested that surveyors should take a renewed look at GIS and the ways it can benefit surveyors and their business. There are more Chapter 13 activity reports.

Paso Del Norte Chapter 17
Chapter 17’s slate of new officers include:
President - Charles Gutierrez, RPLS
Vice-President - Bob Monroe, RPLS
Secretary-Treasurer - Larry Derwers, RPLS
Director - Able Ponce, RPLS
Director - Tom Rollag, SIT

Brazos Valley Chapter 20
Chapter President Henry Mayo attended a Career Fair sponsored by the Bryan-College Station Chamber of Commerce on Nov. 12th. There were more than 2000 8th-graders from schools in several counties in attendance. A planned meeting for January 22, 2009 was scheduled for Huntsville.

Heart of Texas Chapter 21
Chapter 21 members have recently discussed fund raising, college scholarships, SkillsUSA and speaking to local high schools, as well as keeping up to date by Don King on other items of business that have been discussed at the board meetings. Chapter 21 was also considering volunteering at March Symposium in Waco.
TSPS 2009 Symposium
March 20-21

A Surveyor’s Week Special Event

TSPS is thrilled to stage its annual Symposium during the Texas and National Surveyor’s Week commemoration. To mark this special time for the land surveying profession, a Geocache monument will be dedicated Friday, March 20 at 6:30 p.m. by the Texas Society of Professional Surveyors for the purpose of increasing public awareness of the land surveying profession.

This monument will be located outside the Texas Ranger Hall of Fame and Museum in Waco. Speakers will address the long association of the profession of land surveying as it intertwined with the history of the Texas Rangers. The contributions of land surveying to the historic settlement of the Republic and State of Texas will also be remembered. And Central Texas Chapter 3’s Michael Evans will also include comments about the value of having a Geocache Monument that will raise the awareness of surveying and rangering to the citizens of Texas. The monument is being supplied, and set, by Great Southwestern Land Services.

All are encouraged to attend this Geocache Ceremony, as well as a TSPS reception to follow in the Museum. Free tours of the museum exhibits are available to all in attendance. We’ll see you all in Waco!

Texas Ranger Hall of Fame & Museum

Don’t miss your chance to celebrate Surveyor’s Week at the Texas Ranger Hall of Fame & Museum Friday, March 20 at 6:30 p.m. Take I-35 to Waco; the museum is located adjacent at Exit 335-B (University Parks Drive). Follow the signs.

(Photos from Texas Ranger Hall of Fame & Museum website)

Accomodations

Hilton Waco Hotel

This year’s Symposium host hotel is the Hilton Waco Hotel.

The Hilton Waco is centrally located in Downtown Waco just blocks off of Interstate 35 on the banks of the Brazos River. The hotel is minutes from Baylor University, Waco’s Warehouse Entertainment center, and several local attractions.

Hotel Rates
Symposium attendees can receive a discount on their room if they make their reservation by Thursday, Feb. 19, 2009.

Earlybird rates, extended through Monday, March 1, are:
• Single – $119
• Double – $139

Hilton Waco Hotel
113 South University Parks Drive, Waco, Texas
Reservations: (254) 754-8484 Mention “TSPS”
Fax: (254) 752-2214
Or go to www.tsps.org and follow the link for online hotel reservations.

SCHEDULE-AT-A-GLANCE

Friday, March 20
7:00 a.m. - 5:00 p.m.  Registration
7:00 a.m. – 11:30 a.m.  Educational Sessions
11:30 a.m. – 1:00 p.m.  Attendee Luncheon Honoring 2008 TSPS Award Recipients
1:30 p.m. – 5:30 p.m.
6:30 p.m. – 8:00 p.m.

Saturday, March 21
7:00 a.m. – 2:00 p.m.  Registration
8:00 a.m. – 12:00 p.m.  Educational Sessions
12:00 p.m. – 1:00 p.m.  Lunch on your own
1:00 p.m. – 5:00 p.m.  Educational Sessions

A special “Thank You” goes out to this year’s Symposium Sponsors: Anco Insurance; Midwest A&E Supply, Inc.; Carlson Desktop Solutions & Geomatic Resources LLC; and TSPS Central Texas Chapter 3.

Directions to the Hotel

From U.S. Interstate Highway I-35, take the University Parks Drive exit 335 B West. The hotel is located at the intersection of University Parks Drive and Franklin Avenue.

Hotel Parking - Complimentary
Attendee Information

One form per person. Please print or type.

Name (first) ______________________ (Badge Name) ____________________ (last) __________________________________

Company __________________________________________________________________________________________________

Address __________________________________________ City ___________________ State ___ Zip __________________

Phone _____________________ Provide email for confirmation______________________________________________________

TSPS Member # ________ (required for member discount) RPLS# _______ PE # _______

REGISTER EARLY – CLASSROOM SEATING IS LIMITED!

Registration Fees (circle the appropriate price) Licensed professionals may not register as a paraprofessional attendee.

(does not include hotel or meals)

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Events & Education Sessions (All class sizes are limited – REGISTER EARLY!)

Friday, March 20, 2009

- 7:30 a.m. – 11:30 a.m. Changes to NGS Elevations Affected by Subsidence in TX 4 CEUs/4 PDHs
- 7:30 a.m. – 11:30 a.m. Land Descriptions: Preparation, Analysis & Perpetuation 4 CEUs/4 PDHs
- 11:30 a.m. – 1:00 p.m. Attendee Luncheon Honoring ’08 TSPS Award Recipients (No Extra Cost)
- 1:30 p.m. – 5:30 p.m. Oil & Gas Surveying – A Panel Discussion 4 CEUs/4 PDHs
- 1:30 p.m. – 5:30 p.m. RPLS Boundary Retracement 4 CEUs/4 PDHs

Saturday, March 21, 2009

- 8:00 a.m. – 5:00 p.m. Advanced Survey Technology (8-hour course) 8 CEUs/8 PDHs
- 8:00 a.m. – 12:00 Noon Professional Ethics 4 CEUs/4 PDHs
- 8:00 a.m. – 12:00 Noon Survey Math 101 0 CEUs (PP)
- 8:00 a.m. – 12:00 Noon Basic Survey Field Procedures Lunch On Your Own 0 CEUs (PP)
- 1:00 p.m. – 5:00 p.m. RTK Basic Operation & Troubleshooting 4 CEUs/4 PDHs
- 1:00 p.m. – 5:00 p.m. Survey Math 201 0 CEUs (PP)
- 1:00 p.m. – 5:00 p.m. CST Prep 0 CEUs (PP)
- Paraprofessional Course – See course description for prerequisite and requirements.
  • New Course

Payment: □ Check # __________ made payable to TSPS

Credit Card Acct # ____________________________ Exp Date ________ □ VISA □ MC □ AMX

Name of Cardholder __________________________________________ TOTAL _______________
FRIDAY, MARCH 20
7:00 a.m. – 5:00 p.m. Registration
7:30 a.m. – 11:30 Noon CONCURRENT SESSIONS

Changes to NGS Elevations Affected by Subsidence in Texas
Dr. Gary Jeffress, RPLS; Greg Hauer, RPLS; Ms. Renee Shields, Dir. National Height Modernization Program; and Cliff Middleton, Texas Geodetic Advisor.
The National Geodetic Survey is in the process of identifying unreliable coastal elevation benchmarks in Texas and to notify users that the published elevations are now unreliable due to the affects of subsidence. The subject benchmarks are located along the coastal counties in Texas and will be of concern to surveyors who issue Elevation Certificates and in establishing elevations on the North American Vertical Datum of 1988 (NAVD88). This four-hour seminar will educate surveyors on which benchmarks are likely to be affected and the process of notification. Alternate methods of elevation determination using GPS along with the CORS and OPUS solutions will be discussed.
(Surveyors – 4 CEUs; Engineers – 4 PDHs)

Land Descriptions: Preparation, Analysis and Perpetuation
Michael Newton, RPLS, LSLS
Students will learn techniques to prepare data and analyze descriptions in order to honor the past, present the present and protect the future. Gathering needed data and learning to apply it properly will be illustrated in exercises geared toward the student being able to analyze, prepare and leave a clear representation of a survey.
(Surveyors – 4 CEUs; Engineers – 4 PDHs)

FRIDAY, MARCH 20
11:30 Noon – 1:00 p.m. Attendee Luncheon Honoring ’08 TSPS Award Recipients
1:30 p.m. – 5:30 p.m. CONCURRENT SESSIONS

Oil & Gas Surveying – A Panel Discussion
Moderator: Michael Evans, RPLS; Panelists: Brian Miller; Karen Reid, JD; Bill O’Hara, RPLS, LSLS; Jon Stigant, Geodetic Manager; Nedra Foster, RPLS, LSLS
This 4-hour Panel Discussion will include 5 Panelists and a Moderator. The panelists will be introduced by the Moderator, and each will give an approximately 10-15 minute description of what their relationship is to Oil and Gas Surveying, and what each panelist feels is a crucial item not being handled correctly by some surveyors, or one point which the panelist feels is not well known and should bear discussion by those practicing Oil and Gas Surveying. After which the panelists will take questions from attendees, as directed by the moderator.
Objectives to be taught;
1. An understanding of Railroad Commission requirements as they pertain to Oil and Gas Surveying.
2. An understanding of TBPLS requirements as they pertain to Oil and Gas Surveying.
3. An understanding of GLO requirements as they pertain to Oil and Gas Surveying.
4. An understanding of Regulatory requirements as they pertain to Oil and Gas Pipeline Surveying.
5. An understanding of Oil and Gas Industry requirements as they pertain to surveying.
(Surveyors – 4 CEUs; Engineers – 4 PDHs)

RPLS Boundary Retracement Course
Paul Carey, RPLS, LSLS
This course is to present the principles of boundary reconstruction and provide numerous exercises for attendees to practice solving various boundary reconstruction scenarios. This course may be taken as part of a series of courses to help candidates prepare for the Texas RPLS exam.
Key Points:
• Determining seniority of surveys and the retracement of original survey lines
• Partitions, simultaneous conveyances, and evaluation of the written instruments.
• Determining Seniority of Tracts & Deeds and the application of Junior/Senior Rights
• Application of Dignity of Calls, 4 Corners Rule, and Exceptions to the Rules
• Recognizing conflicts, ambiguities & discrepancies in boundary reconstruction
(Surveyors – 4 CEUs; Engineers – 4 PDHs)

*CEUs* – Continuing Education Units for Registered Professional Land Surveyors (RPLS). In order to earn CEUs, you must attend a session in its entirety. Please plan for early arrival in order to process necessary registration paperwork. No CEUs will be awarded to attendees who sign-in 10 minutes after a session has begun. You may not attend portions of different seminars during the same time slot. The maximum number of CEUs that can be earned at the TSPS Spring Symposium is 16. Monitors will assist attendees in completing the appropriate documentation that is to be submitted to TBPLS.

*PDHs* – Professional Development Hours for Engineers (TBPE does not have a pre-approval process for courses that offer PDHs to engineers. TBPE allows 1 PDH per 1 contact hour of instruction. All courses are subject to final acceptance from the TBPE upon submission of renewal.)

*PP* – Paraprofessional Course. These courses are designed specifically with the survey paraprofessional in mind and have not been approved for CEUs by TBPLS. No CEUs will be awarded for attending paraprofessional courses.)
**Advanced Survey Technology**

*Bob Hysmith, RPLS; Martin Richardson; John Clark (8-Hour Course)*

Surveying technologies are rapidly changing the way surveyors perform their work. This course will explain some of the different technologies that are in use today and how today's surveyor can incorporate those technologies in their business. Topics include digital orthophotography, LiDAR, ground based scanning, and robotics. By the end of the seminar attendees will be able to identify various survey technologies, what they do, their limitations, and recognize how these technologies can be used on various types of projects.

(Surveyors – 8 CEUs; Engineers – 8 PDHs)

**Professional Ethics**

*Robert L. Young, RPLS and Fred Crawford, RPLS*

This course will cover the realm of professional ethics for surveyors and engineers as laid out and defined in the “TSPS Canon of Ethics”. Students will become familiar with the “canon” and learn to recognize legal ramifications of non-compliance. They will learn to apply ethical standards to business practices and professional situations, and be provided with additional resources concerning professional ethics.

(Surveyors – 4 CEUs; Engineers – 4 PDHs)

**Survey Math 101**

*David McDow, RPLS and John Barnard, RPLS*

The Surveying Math 101 seminar is a basic math course designed to expose individuals to basic surveying math computations. The Math 101 seminar will prepare students for topics covered in the Surveying Math 201 seminar and will help prepare them for Level 1 of the NSPS Certified Survey Technician Exam. Basic math computations relating to conventional surveying techniques will be demonstrated and real field survey scenarios will be provided for attendees to solve. By the end of this seminar attendees will be able to; manipulate equations to solve for a missing variable, solve right triangles for the missing elements when given two known elements, derive angles, distances, and new coordinates from given coordinates. Attendees should bring a scientific calculator and be familiar with its operation.

(PP)

**Basic Survey Field Procedures**

*Roger Hart, RPLS*

This basic field procedures course is designed for the beginning field crew member or for anyone that wants to better understand the “why” of proper survey procedures. Attendees will learn the proper usage of equipment and rules of safety in the field and basic notekeeping necessities and tips on good public relations.

(PP)

**RTK Basic Operation & Troubleshooting**

*Trisha Lund, RPLS and Chris Nelms*

Real Time Kinematic (RTK) is the most common method for the use of GPS in Land Surveying today. This course will explain to the novice or intermediate user the basics of RTK surveying, as well as the definition of relevant terms. Topics covered include how to set up the equipment, check the radio performance, search for sources of error and troubleshooting the RTK performance. By the end of the seminar attendees will be able to recognize and accurately use common RTK terms, identify components and functions of an RTK system, assemble a virtual RTK system, determine where to setup a base station – receiver and radio, and determine the radio range on a quad map. The course will prove useful to those wishing to learn more about this very valuable surveying tool.

(Surveyors – 4 CEUs)

**Survey Math 201**

*Joe Webber, Jr., RPLS*

The Surveying Math 201 seminar is an intermediate math course designed to assist those individuals preparing for advancement within their company; preparing for one of the first 3 levels of the NSPS Certified Survey Technician Exams; or reviewing their math skills for the Surveyor-In-Training Exam. Math computations relating to conventional surveying techniques will be demonstrated and real field survey scenarios will be provided for attendees to solve. Concepts that will be practiced are the ABC’s of Trigonometry, using Law of Sines and Law of Cosines to solve for missing elements of oblique triangles, and using Vertical Angles to determine height. Attendees must have a basic knowledge of calculators, right triangles and algebraic manipulation.

(PP)

**CST Prep**

*James Redmon, RPLS*

The Certified Surveying Technician (CST) program is a nationally recognized exam and has been endorsed by the Texas Department of Transportation as well as other organizations. This course has helped many individuals prepare and successfully complete the CST exam.

**Thanks to Our Friends and Sponsors:**

- **Anco Insurance**
- **TSPS Central Texas Chapter 3**
- **Carlson Desktop Solutions**
- **Geomatic Resources LLC**
- **Midwest A&E Supply, Inc.**
- **TSPS West Central Texas Chapter 18**
Unsung Heroes  
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between an approvable (but not buildable) plan, and one that can be constructed. In my 40+ years of surveying, I don’t recall ever being presented with a plan from an architect in which all of the incremental dimensions added up to equal the overall total dimension shown.

Likewise, rarely have I seen a design plan from an engineer that doesn’t require some level of recalculation. It almost seems as though the better technology becomes, the more plans tend to be “cartoons” that look good, but are often not mathematically or geometrically sound.

In spite of the importance of the services surveyors provide to fellow professionals, and to the public at large, we are often held in low esteem by our fellow professionals and others with whom we must work, even those for whom we toil in apparent selflessness!

Why do we not get the respect that we think we deserve?

There are several schools of thought with regard to this question.

Some say that it is due to the low requirement for the formal education necessary as a prerequisite by more than half of the 50 states to qualify for taking the examinations to attain licensure as a surveyor. Some even question the professionalism of surveyors due to a lack of formal education. While I understand that the title “professional” may be defined to be applicable only to those who have attained some prescribed academic degree requirement, I do not believe that formal education and professionalism are synonymous. Professionalism, as it is typically understood to be defined relative to the services one provides, is a personal achievement that is based on character and the manner in which individuals conduct themselves in the pursuit of their work. It is not based on the number or hierarchy of degrees one holds. There are many instances in which this is evident in society.

Still, the concept of aligning the title of professional with formal education is becoming more and more prevalent, and should not be discounted. It is certainly true that exposure to the broad opportunities in surveying practice is much more available to students in surveying-related college and university programs than it is to an individual who merely gains experience while working for a licensed surveyor whose services are limited to only one, or a few, of those areas of practice;

"... we are often held in low esteem by our fellow professionals and others with whom we must work, even those for whom we toil in apparent selflessness!"

Others say it is because we bid our services against our competition to the ultimate lowest price. There is much evidence of this, also. Why would clients perceive that our services are worth more than we seem to believe them to be? When someone continues to lower the cost of services in order to “get the job”, clients will think one of two things: 1) this person must not think his/her services are worth much; or 2) this person must have been trying to cheat me with the first price quoted since it has now been lowered.

Neither perception is a good one for the surveyor, and our profession in general. Even if one “bids” for work, it makes sense as professionals for us to understand the cost of doing business and the value to the client, and the public, of the services we provide;

Still others say it is because we don’t present ourselves to the public in the same manner as do other professionals. Many believe it is a result of our relative inability to articulate well what it is that we do, and that our work is much more than simple applications of mathematics. Additionally, it is perceived that we do not dress appropriately for the situation at hand. An uncle of mine once stated that people are supposed to judge you based on what is on the inside, not on your appearance outside. One of his sisters remarked, “If they don’t like what they see on the outside, they may never bother to look at what is inside”.

How many times have we heard it said, “We are our own worst enemies”?

There is some element of truth in all of these things regarding us as a whole. However, other professionals suffer from negative perceptions also.

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Doctors get sued more often than we do. Lawyers are reviled constantly. Engineers are sometimes considered by some to be Nerdy. Some consider architects to be aloof and illogical.

Contractors are sometimes put into the category with those who are considered unscrupulous.

The list goes on and on!

So why are all of them more well-known, and in spite of the criticisms, much more prominent (and yes, respected) in the minds of the public, and young people who are planning for their futures?

What do they have that we don't have? What do they do that we don't?

How many times have we heard the radio commercials extolling the virtues of the architect? How much press is there for EWEEK and MATHCOUNTS?

While personal, local, and state efforts are critical for presenting ourselves as professionals, and our profession as a viable career option, without a national effort similar to those of doctors, lawyers, architects, engineers, and even contractors, our chances of gaining the recognition and respect due to us remain seriously hampered.

Why are organizations such as the AMA (doctors), ABA (lawyers), AIA (architects), NSPE and ASCE (engineers), AGC (contractors), and even MAPPS (professional photogrammetric surveyors) more effective than are our national organizations (ACSM and NSPS) in their efforts to influence legislation and policy, present the professions they represent as viable career options, and be well recognized by the general public.

I think a very important reason is because the practitioners they represent recognize that, while the registration laws governing their practice are state laws, and unity of effort at the state level is critically important, they will only have an impact on a national scale by acting collectively.

The reason that these other organizations are so effective isn't because they care more, or that they have more talented and persistent flag bearers than we do.

It is because their constituents support their national efforts to a higher degree. A higher percentage of potential members support all of these organizations than do those of our national organization.

I don't want this to come across as a sermon chastising those who are not members of ACSM/NSPS. While that would be a wonderful thing, in my opinion, the message here is that we must find a way to act together, not against each other.

It is a proven fact that what we seek will not just happen. We have to work for it.

We must temper our desire to think of ourselves as rugged individualists with the reality that only by banding together will we be able to make a difference in our quest for more prominence and respect as a profession.

As we gather here tonight, Department of Labor Auditors in Maine are refusing to recognize surveyors (licensed or not) as professionals.

FEMA has decided to allow practitioners in Flood Determination companies to file Letters of Map Amendment using the online eLOMA option.

Surveyors are being cast by some as being irrelevant due to new technologies that allow almost anyone to gather geospatial data and integrate it into documents that appear to the public to have the same (if not higher) reliability than those prepared by surveyors.

Surveyors are being asked to bid their services to other professionals, although those professionals were selected using Qualifications Based Selection (QBS) criteria, commonly known as the Brooks Act.

There is concern that our profession is dying because we cannot attract enough young people to sustain it.

These are but a few of the challenges that we face.

What form the collective effort will take to accomplish our goals is less important than the fact that it must occur.

So, are we unsung heroes, or are we out of touch with the realities that surround us?

I suppose it is a little bit of both.

Our contributions to the well-being of our fellow citizens are clearly under-recognized, if not unappreciated.

On the other hand, we must understand that only through substantial effort on our part will that recognition come.

These are tough economic times, and it is natural for us to look inward toward the sustainability of our respective businesses. I wish that I had a simple solution that would restore the confidence necessary to overcome the situation.

Unfortunately, it appears that finding that solution will be difficult. All of the tenets on which I have always depended for a successful surveying business are still valid, but without consumer confidence, obtaining work will still be difficult.

Still, I am confident that you share my concern for the present, and future, well-being of our profession.

Now, at the beginning of my 11th year as the Executive Director of ACSM/NSPS, my resolve to address the challenges we face remains undeterred.

I trust that you will, if not immediately, then as times get better, join me in banding together through a stronger and more sustainable national presence that is not only desirable, but essential.
## Coming Events

### MARCH

**March 5-7**

**Heart of Texas Retracement Seminar - SOLD OUT**  
Instructors: Jerry Goodson, Ben Thomson, Greg Smyth, Bill O'Hara, Davey Edwards and Paul Carey  
Wulf Cedar Creek Ranch  
Brady, Texas  
**Members: $450 RPLS (includes lodging)**  
**$220 Paraprofessional**  
**Non-Members: $550 RPLS (includes lodging)**  
**$275 Paraprofessional**  
16 CEUs

**March 20-21**

**2009 TSPS Symposium**  
Hosted by Central Texas Chapter 3  
Instructors include Dr. Gary Jeffress, Robert Young, Fred Crawford, Michel Newton, Michael Evans, Paul Carey, Martin Richardson, Bob Hysmith, John Clark, David McDow, John Barnard, Roger Hart, Trisha Lund, Chris Nelms and James Redmon  
Hilton Waco Hotel  
113 South University Parks Drive  
Waco, Texas  
Rm Rate - $119  
16 CEUs available, as well as paraprofessional courses  
Surveyors Week Celebration, Ceremony  
& Reception at the Texas Ranger Hall of Fame and Museum (Friday, March 20)  
6:00 p.m. – 7:30 p.m.  
Interstate 35, Exit 335B  
Waco, Texas

### JUNE

**June 12-13**

**Second Quarterly Board Meeting and Ray Wisdom BBQ & Auction**  
Radisson North Austin  
6000 Middle Fiskville Rd  
Austin TX 78251  
512-451-5757  
(Radisson North Austin is located on the West side of IH-35, directly across from the Doubletree Hotel, where TSPS met in 2007.)  
Rm Rate - $105

### AUGUST

**August 27-30**

**Strategic Planning & Third Quarterly Board Meeting**  
Hilton Airport Hotel  
9515 Hotel Drive  
Austin, TX 78719  
512-385-6767  
Rm Rate - $109

### OCTOBER

**October 22-24**

**58th TSPS Convention & Technology Exposition**  
Renaissance Hotel  
9721 Arboretum Blvd.  
Austin, TX 78759  
Rm Rate - $155

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## The Wise Owl

"Dear Tide:

I’m writing to say what an excellent product you have! I’ve used it all through my married life, as my Mom always told me it was the best. Now that I am in my fifties, I find it even better!

In face, about a month ago, I spilled some red wine on my new white blouse. My inconsiderate and uncaring husband started to berate me about how clumsy I was and generally started becoming a pain in the neck.

One thing led to another and somehow I ended up with a lot of his blood on my white blouse. I tried to get the stain out using the bargain detergent I use on his clothes, but it just wouldn’t come out.

After a quick trip to the supermarket, I purchased a bottle of liquid Tide with bleach alternative, and to my surprise and satisfaction, all of the stains came out!

In fact, the stains came out so well the detectives who came by yesterday told me that the DNA tests on by blouse were negative. Then my attorney called and said that I would no longer be considered a suspect in the disappearance of my husband.

What a relief! Going through menopause is bad enough without being a murder suspect!

I thank you once again for having such a great product. Well, gotta go. I have to write a letter to the Hefty bag people.”

Watch your backs boys these are dangerous times.

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K & E optics Metrology Division Precision Sight Level Model # 9092-3A with case, level rod, and tripod base. This equipment is in good working condition and was recently calibrated. Pictures available upon request. We paid $9000.00 for this equipment and are asking $7000.00. If you are interested email me at denak@stsurvey.com.

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See Classified Ads, Page 14
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family’s history,” said Pierce, RPLS #2011. “My dad died from it, and my grandfather on my dad’s side died of it.”

Aware of the odds that he might face his own struggle with cancer, Pierce faithfully got annual checkups that included the PSA blood test. This check on the health of the prostate is recommended annually for men over 40.

“I got one every year, and I had a number (test result) of around one,” Pierce said. “That’s what they want. But in ’07, it went up to three … in ’08, over 4.6.” His doctor recommended a biopsy, and of 12 samples taken, only one came back cancerous. However it was rated a 7, a sign of an aggressive, even advancing condition. He was given options for treatment, including radiation and prostate removal. Upon researching the treatments and his own circumstances, he opted to remove the prostate via a robotic surgery. The procedure was completed Oct. 23, lasting 3 hours.

“It had more cancer in it than they thought it was going to have,” Pierce said. “Depending on your age when it’s discovered, it can be slow-growing or very aggressive. Also, the older you are, the less likely they do surgery.”

That makes early detection all the more critical, he said. Annual examinations, while uncomfortable, can literally save your life and avert the grief your family will endure upon diagnosis of cancer, he said. And even knowing his family history, the positive test results of the biopsy were hard to handle.

“It was a shock, but not really because my dad had it,” he said. “You go into a period of denial. It’s just an emotional thing, when you wake up and someone tells you, ‘you’ve got cancer.’ It’s a shock, and I was told over the phone!”

Pierce said he and his wife made the decision fairly quickly to remove the prostate, and he credited pre-operation physical therapy for making his recovery so speedy. But now as fears for his own health subside, he’s on a crusade to alert family, friends and surveying colleagues about the need for annual prostate exams.

“If anyone has any questions, I’ll talk to them,” he said. “But I know many don’t want to hear about this. My father never had a physical, as far as I know, before he was diagnosed. And once you get it, it will spread, so you have to have that annual physical and keep up with it.”

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