

February 2012

SIDE SHOTS

Professional Land Surveyors of Colorado

Volume 43, Issue 1



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Side Shots is the official publication of the Professional Land Surveyors of Colorado, Inc. and is published quarterly for the betterment of the surveying profession.

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Deadlines for editorials, articles, pictures and advertising are January 1, April 1, July 1 and October 1. All material received after the current deadline will appear in the next issue of Side Shots.

We would like to invite anyone who is interested to advertise in Side Shots.

Do you have something you want to sell, trade or buy? Why not use Side Shots for your next ad? We can also reproduce business cards for advertising. Ad space reservation must be arranged with Diana Askew, PO Box 704 Conifer, CO 80433; 303-838-7577. Ad copy may be sent to: diana.askew@plsc.net before the editorial deadline (January 1, April 1, July 1 and October 1).

Current Advertising Rates:

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We are fast approaching the 2nd annual PLSC Surveyor's Summit and Annual Membership Meeting at the Arvada Center, our highly successful combining of talent and resources into a single educational and networking event for our membership. Our education committee and executive director have been working hard to prepare for this. I am excited about the quality topics and speakers that are planned for this year's event. I also anticipate seeing many new faces at the Summit, as the education committee has been reaching out to a wider audience, including those responsible for ordering surveying services. I request that we, as members of PLSC, do our part in spreading the word to fellow surveyors and consumers of surveying services about this upcoming Summit. This is a great networking opportunity to connect with those that might be hiring in the future and those that are looking to secure surveying services.



In addition to the Surveyor's Summit planning, the PLSC refresher course instructors held their annual kickoff meeting in preparation to present another series of classes designed to reinforce existing surveying skills for those preparing to take the LSI and PLS exams. This opportunity to assist upcoming professionals is one of the many ways that the PLSC provides value to our surveying community.

If you haven't done so already, please go online at www.plsc.net or respond to your email reminders to renew your PLSC membership for 2012! The PLSC is continuing to work hard to efficiently provide you with news, lobbying efforts, educational resources and support, but we need your help to continue. To those who have already renewed, many thanks.

The PLSC Board of Directors named Alan Blair to chair the Legislative Committee. Alan served on this committee over the past two years and will provide the required leadership going forward. The committee is working on the sunset review process as well as working to provide a template for affidavit of corrections. We hope to have the template available for download and use in the coming months. Thanks to Alan for taking on this responsibility.

We are now only a few months away from the spring season. I hope that with the new vegetation growth comes many new survey opportunities for all of us.

Sincerely,
Roger D. Nelson, PLS, CFedS

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We have reduced the number of printed and mailed copies of *Side Shots*, beginning with this issue. If you did not receive one, I hope that you are reading the pdf version on www.plsc.net instead. Whether you read it as a magazine, on your computer, or catch it on your smartphone, it's your exposure to the content that counts. Use it to keep up with the latest news from the PLSC and the industry, and as always, consider sharing your knowledge and beefing up your resume/CV by contributing an interesting article that will benefit your peers.

The premier event of the year for the PLSC is coming up next month, the second annual Rocky Mountain Surveyors Summit at the Arvada Center. As you can see on the cover, we have the most impressive lineup of instructors ever. The course syllabus, registration details, etc. are described in this issue. As a professional surveyor, you really should make an effort to attend one, or even better, all three days of this event, including the annual membership and Board of Directors meeting. A Chapter Summit will be held on Thursday evening, March 1st, a vitally important event for any of you wanting to communicate the concerns of your regional chapter to the PLSC organization and to one another. This is how the PLSC evolves and improves to serve you better. A lot of people volunteer to work very hard to make this Summit event a reality, to further our mission of providing continuing education and a convenient gathering to promote networking. It also happens to be a lot of fun.

Membership renewals are coming in, and if you have done yours, we thank you. If you are still "on the fence" about renewal (no surveying pun intended!), or you were recently introduced to the PLSC, be sure to read, "What is the Value of PLSC Membership?" by Todd Beers, PLS in this month's issue. It is a very complete and inclusive review.

Other items of interest this month include "Sunset Review Explained" by Alan Blair, PLS, an excellent overview of the upcoming process that may result in changes to the Colorado Legislature's regulations of our industry. If you feel strongly that certain regulations should be changed, added or done away with, you will have ample opportunities to make your opinions heard during 2012. We also have an interesting contribution from Dr. Jan Van Sickle, PLS on the need for geospatial education and competency, and another from Earl Henderson, PLS on the subject of lost corners as defined in the BLM manual. Earl is currently serving on the Colorado board of the Department of Regulatory Affairs (DORA) representing the surveying profession.

I would also like to acknowledge the contributions to the PLSC of Gene Kooper, PLS, who resigned from the Board of Directors last year for personal reasons. He was the former Chair of the Legislative Committee, and the driving force in representing the PLSC in the challenging issues of continuing education and the sunset review process. He was one of my favorite contributors to *Side Shots*, including "Theoretical Exclusions in Mineral Patents," the cover story for the May, 2011 issue. I have known Gene for many years as a friend and colleague. He brought a great deal of technical and historical knowledge and integrity to the PLSC, and will be missed. I wish Gene the best of luck in all of his future endeavors.



My thanks go out to all who contributed to the hard work of making *Side Shots* a reality during 2011, from the authors, the officers, the advertisers, and the chapter representatives, to the good folks at the Publishing House who put it all together as a magazine. Your continued interest and participation is welcomed and encouraged. Happy New Year to everyone.

JB Guyton,
Editor, *Side Shots*

This Month on WWW.PLSC.NET

In the online version, click on the title to the right to download the documents.

The complete minutes of the September, 2011 meeting of the Western Federation of Professional Surveyors (WFPS), held in Seattle, including the summary reports of news from each state organization, can be found in the online version of this issue, at www.plsc.net/sideshots/sideshots.htm

PROFESSIONAL LAND SURVEYORS OF COLORADO, INC.

(In conjunction with the Northern, Central, Southern and CSRN Chapters)

2012 2nd ANNUAL ROCKY MOUNTAIN SURVEYORS SUMMIT “TYING THE WORLD TOGETHER”

WHEN: MARCH 1, 2 & 3, 2012

Registration begins at 7:00 A.M. and classes start at 7:30 A.M.

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SPEAKERS: Gary Kent, Dennis Moulard, Dave Pehr, National Geodetic Survey-David Newcomer, Al Morganfield, Pamela Fromhertz, George Moody, Ken Martinez, Jim Reinbold, Donny Sosa, Jill Sweeney, Dan Smith, Alan Blair, Kevin Williams, Ron Scherler, Randy Bloom, Gaby Neunzert, Larry deVries, Jan Sterling, Jerry Cordova, Aaron Willis, Sam Walters, Harold Baldwin

Courses and schedule subject to changes; please go to www.plsc.net for updated information and to register online.



PROGRAM:

THURSDAY, MARCH 1ST

PROFESSIONAL TRACK

7:30 A.M. – 5:30 P.M. **Mr. Dennis Moulard, PLS,**
“PLSS for the 21st Century”

BUSINESS & GENERAL TRACK

7:30 A.M. – 11:30 A.M. **Mr. David Pehr, Esq.,**
“Surveyors Civil Liability”

1:00 P.M. – 3:00 P.M. **Mr. Al Morganfield, PLS,**
“Easements-The Good, the Bad and the Ugly”

3:30 P.M. – 5:30 P.M. **Mr. George Moody, PLS,**
“Hydrographic Surveying Techniques and Mapping Applications”

TECHNICAL TRACK

7:30 A.M. – 5:30 P.M. **National Geodetic Survey-Dave Newcomer,** “OPUS-Projects Manager Training Workshop Day 1”

TECHNICIAN / GIS RELATED TRACK

7:30 A.M. – 9:30 A.M. **Mr. Ken Martinez, CommTech,** “The Pros and Cons of Survey in Civil 3D. You Be the JUDGE!”

10:00 A.M. – 11:30 A.M. **Mr. Jim Reinbold, Carlson,**
“Field and Office Solutions”

1:00 P.M. – 3:00 P.M. **Mr. Donny Sosa, ESRI & Mr. Jim Reinbold, Carlson,** “Carlson and ESRI Survey Workflow”

3:30 P.M. – 5:30 P.M. **Mr. Donny Sosa, ESRI,**
“GIS—Getting Started”

Lunch Keynote Speaker: Mr. Harold Baldwin, PLS,
Western Federation of Professional Surveyors (WFPS) Chairman, “Update on WSPS Activities”

EXHIBITOR SOCIAL 5:30 P.M. – 7:00 P.M.

PLSC CHAPTER SUMMIT MEETING

7:00 P.M. – 9:00 P.M.

Any Chapter Representatives are welcome and encouraged to attend this meeting, to express your views with other Chapters and with the PLSC President and Board of Directors. The PLSC “Mother Ship” wants your input on any topic you choose, such as education, legislation issues, publications, workshops, communications, etc. The PLSC Board



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wants to provide maximum value to members of every Chapter. This meeting is a venue for open and honest input. Please attend and be prepared to talk.

FRIDAY, MARCH 2ND

PROFESSIONAL TRACK 1

7:30 A.M. – 5:30 P.M. **Mr. Gary Kent, PLS**,
“ALTA/ACSM Land Title Surveys-An Introduction to the New 2011 Standards”

PROFESSIONAL TRACK 2

7:30 A.M. – 11:30 A.M. **Mr. Dennis Mouland, PLS**,
“Thinking Beyond Technology”

1:00 P.M. – 5:30 P.M. **Mr. Dennis Mouland, PLS**,
“Basic Logic for the Land Surveyor”

TECHNICAL TRACK

7:30 A.M. – 5:30 P.M. **National Geodetic Survey-Dave Newcomer**, “OPUS-Projects Manager Training Workshop Day 2”

BUSINESS & GENERAL TRACK

7:30 A.M. – 11:30 A.M. **Mr. David Pehr, Esq.**,
“Establishment/disestablishment of Roads in Colorado”

1:00 P.M. – 3:00 P.M. **Mr. Dan Smith, PLS & Ms. Jill Sweeney, CDOT**, “CDOT’s Professional Land Surveying Contracting Process (Qualification Based Selection)”

3:30 P.M. – 5:30 P.M. **Mr. Alan Blair, PLS, Mr. Kevin Williams, PLS and Mr. Dan Smith, PLS** “Road Right-of-Way Descriptions, a Different Perspective”

PLSC ANNUAL MEETING 5:30 P.M. – 6:30 P.M.



SATURDAY, MARCH 3RD

PROFESSIONAL TRACK

7:30 A.M. – 5:30 P.M. **Mr. Ron Scherler, PLS & Mr. Randy Bloom, PLS**, “CFeds Program Overview and What Would You Do and Why-a recent Interior Board of Land Appeals decision will be reviewed”

TECHNICIAN TRACK

7:30 A.M. – 11:30 A.M. **Mr. Gary Kent, PLS**,
“ALTA/ACSM Land Title Surveys-A Field Perspective”

1:00 P.M. – 5:30 P.M. **Mr. Gary Kent, PLS**,
“Surveyors Reports”

TECHNICIAN / GIS RELATED TRACK

7:30 A.M. – 11:30 A.M. **Mr. Gaby Neunzert, PLS**
“Elementary Surveying Mathematics-Surveying Math 101”

1:00 P.M. – 3:00 P.M. **Mr. Larry deVries, PLS**
“Application of Geodetic Surveying and Geographic Information Systems”

3:30 P.M. – 4:30 P.M. **Ms. Jan Sterling, PLS** “City of Aurora GIS Department & control network”

3:30 P.M. – 5:30 P.M. **Mr. Jerry Cordova, City of Fountain Water Department**, “City of Fountain Water Utility Project and Survey Control Network”

BUSINESS & GENERAL TRACK

7:30 A.M. – 9:30 A.M. **Mr. Sam Walters, M.S.E.F.S.L.**,
“The Risks Are Also Yours!!!!”

10:00 A.M. – 11:30 A.M. **Ms. Pamela Fromhertz, NGS Colorado State Geodetic Advisor** “Latest Developments in the National Geodetic Survey”

1:30 P.M. – 5:30 P.M. **Mr. Aaron Willis, PLS**
“Introduction to surveying for the general public, planners, title companies, abstractors & real estate professionals”.

Note: Program has been approved for 4 hours Real Estate Continuing Education Credit!!



FEE SCHEDULE 2012

(same pricing as 2008 and adding full day)

PLSC MEMBER: \$200 One Day; \$375 Two Days;
\$550 Three Days

NON-MEMBER: \$300 One Day; \$475 Two Days;
\$650 Three Days (2012 PLSC Members save \$100)

STUDENT: \$75 One Day; \$125 Two Days;
\$200 Three Days

EXHIBITORS: \$400 Three Days + \$230 for 2012
Sustaining Membership

An additional \$25.00 will be added to registrations received after February 20th, 2012. Catered breakfasts & lunches will be provided on all days. Online registration will be available at the PLSC web site (www.plsc.net).

GENERAL INFORMATION

SILENT AUCTION

We will be holding a silent auction during the conference. If your equipment room is cluttered up by equipment you are no longer using, please consider donating an item or two to the PLSC silent auction.

EXHIBITORS

In keeping with our traditional practice, our Sustaining Members and other exhibitors have been invited to display their latest products and services. Exhibits will

be in the Arvada Center entrance hall adjacent to the classrooms. Please visit their displays and show our appreciation for their continued support.

TRANSPORTATION TO / FROM CONFERENCE HOTEL

There will be a shuttle bus to and from the conference hotel each day. Pick up and drop off times will be announced prior to and at the conference.

Photos from 2011 Conference by Mike Greer



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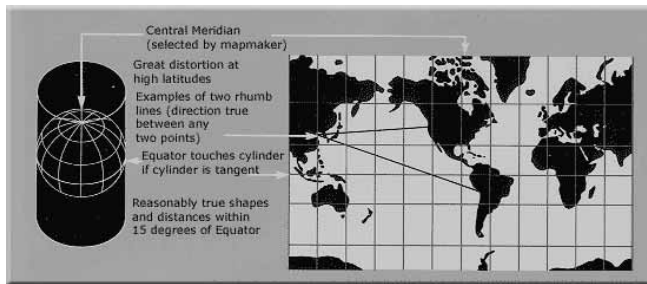
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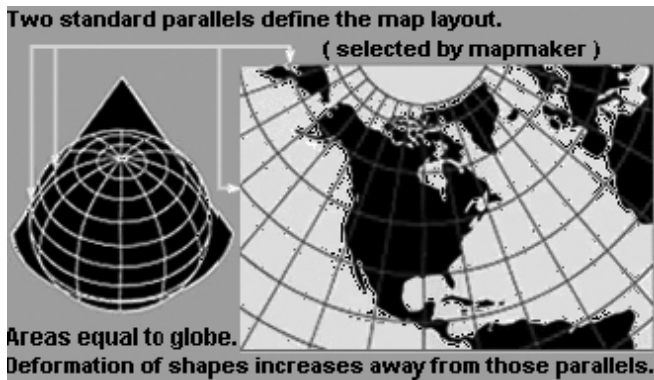
Control Points – Number 15

By Warren Andrews, PLS

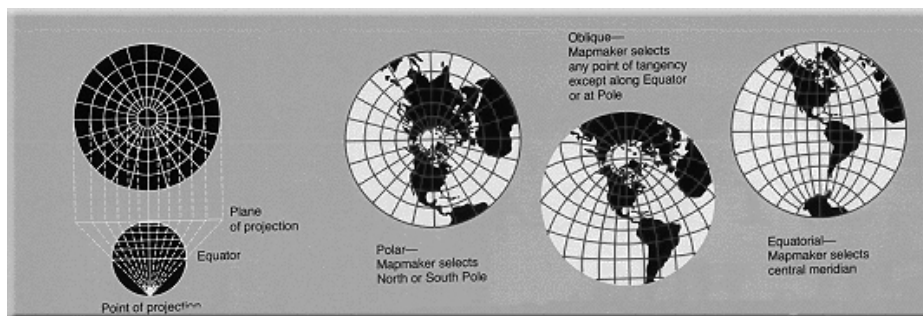
Map Projections



The Mercator projection shows courses of constant bearing as straight lines.



An Albers projection shows areas accurately, but distorts shapes.



A stereographic projection is conformal and perspective but not equal area or equidistant.

All images courtesy of USGS.

To most land surveyors the fact that the earth is basically a globe (roughly a sphere) really has no effect on their field work. They could join the Flat Earth Society and feel quite comfortable about it. But there are three allied professions where that is not true; the geodetic surveyors, the large area cartographers, and the geographers. (Actually, if you're using GPS nowadays and get curious about it, you could rapidly get into spherical trigonometry and map projections.)

The differences in the size and shape of the earth, from assuming its radius is 6,370 km (6,378 at the equator and 6,356 through the poles) begins to get kind of funny when you have to take into account the geoidal surface of the oblate spheroid due to gravity. (The geoid is the mean sea level surface and then the mountains are on top of that.) The GPS satellite positions certainly are affected by all of this.

Down through the centuries when the old timers (such as the Roman geographer Ptolemy), tried to describe and show where they were going or where they'd been the map was somewhat crude. One of the exceptions is the Piri Reis Map which is surprisingly accurate and a mystery as to who made it and particularly when in the very ancient days. Charles Hapgood's story about his decipherment of its projection makes a fascinating story in his book, *Maps of the Ancient Sea Kings*.

In trying to show the surface of a globe on a flat piece of paper, there are three principal approaches (plus a number of minor ones). One is to show equal areas, the second is to show equal distances, and the third is to show equal angles. You can't show more than one at a time, it excludes the other two, it just doesn't work. This is the frustration of the large area cartographer.

A solution for each of the three principal approaches are as follows:

1. Slip a cylinder over the globe and project points from the globe to the cylinder. If the axis of the cylinder is the same as the axis of the earth, the projection is true at the equator and increasingly distorted toward the poles. This is the concept of the Mercator maps.

2. Slip a cone over the globe (with the axis of the cone and the globe being identical) so that the cone cuts into the globe on two circular lines. The projection is true along

the two circular lines becoming slightly distorted in between the lines and increasingly distorted outside of the lines. This is the concept of the Albers Projection for Colorado state plane coordinate positions on a plane surface.

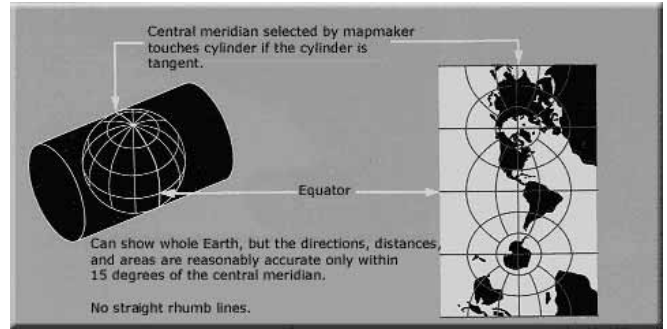
3. Put a flat plane against the globe tangent at one point such as the earth's north pole (or any other point for

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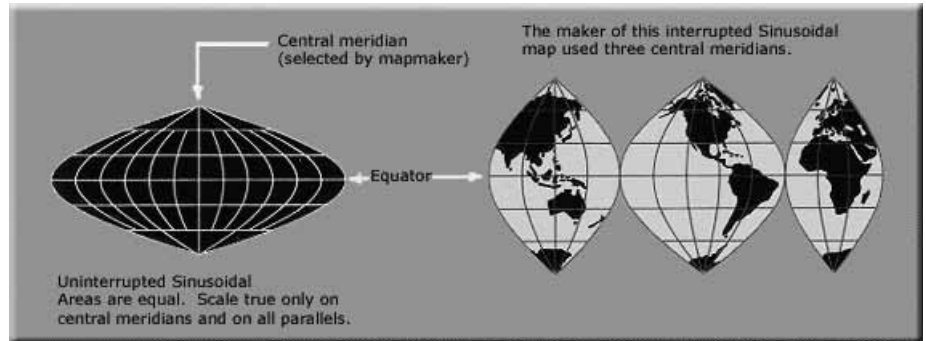
that matter) and project points from the globe to the plane. The further away from the tangent point, the more the distortion in area even though the angles (of the meridians) are true. This is the stereographic projection.

A variant on No. 1 is the Transverse Mercator, which has the tangent cylinder imposed over the globe horizontally rather than vertically. The north-south strips on each side of where the cylinder touches the earth (the tangent circle is the central meridian of the projected map) are quite useful for being close to true scale if you don't go too far away from the central meridian. This is the UTM or Universal Transverse Mercator used by the military and others (the distortion can be kept quite low).

Other projections are shown in Professor Porter McDonnell's book, *Introduction to Map Projections*, Second Edition, published by Landmark Enterprises in 1991. Some of the more unusual looking projections are the sinusoidal (which resembles a very fat onion), the polyconic (which looks like the top half of a heart), and the Strebe Shield projection (which looks like a heart with a big hole in the top). The Mercator, the Albers, the Stereographic and the Transverse Mercator are shown, along with the Sinusoidal.



This transverse Mercator projection is mathematically the same as a standard Mercator, but oriented around a different axis.



A sinusoidal projection shows relative sizes accurately, but grossly distorts shapes. Distortion can be reduced by "interrupting" the map.

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What is the Value of PLSC Membership?

By Todd Beers, PLS

As I reflect over the past few years of my career and my involvement with professional organizations & conferences, I seem to keep asking myself, "Why do I see a decrease in the PLSC membership and an apparent lack of interest towards the improvement of the Land Surveying profession?" Yes, we are in the middle of poor economic times but our profession continues on, and impacts large and small companies, communities, agencies and governments. I firmly believe that the PLSC and the associated chapters provide a vital role in the improvement of our profession and serve as a resource to our fellow surveyors and related industries where surveying plays a contributing part.

The PLSC is a professional organization of land surveyors and members of the public with an interest in the surveying industry. The organization consists of the PLSC Board of Directors (BOD) and seven chapters that cover the geographical extents of the State of Colorado. The PLSC exists to serve its members and the surveying profession as a whole.

When I discuss our state society with others in the community, I attempt to highlight some of the advantages and reasons for membership. Some of the "value" items listed below were culled from past articles (thanks to JB Guyton, Diana Askew and others), while others have been added that may not have been identified in prior sources.

The remainder of this article is meant to illustrate and highlight the various items of value that involvement in the PLSC can offer, starting with the largest event of the year, the annual conference.

The 2nd Annual Rocky Mountain Surveyors Summit is fast approaching and provides just one of the many "values" that PLSC membership affords. The Summit boasts a full slate of 3 days and four tracks (Professional, Technical, Business, General and Technician) of presentations, seminars and discussions for professional land surveyors and non-surveyors alike. There will be nationally recognized surveying experts such as Gary Kent, PLS (speaking on the new 2011 ALTA standards and surveyors reports), Dennis Moulard, PLS (speaking on the PLSS for the 21st century, state versus Federal law, and surveying beyond technology) and Ron Scherler, PLS (retired from the BLM, will be leading a discussion on a recent Board of Land Appeals decision) as well as local Colorado speakers touching on a wide range of subjects, and National Geodetic Survey representatives providing a two day workshop on GPS OPUS Project processing. Exhibitors, who are also PLSC sustaining members, will be on hand to display a variety of products and services useful to the surveying industry. In addition, this year we will be having a Chapter Summit where the 7 PLSC Chapter representatives will have a forum to interact with each other and indicate to the PLSC leadership what issues and/or items of concerns

they would like to have addressed in the coming year. Last year's conference was held at a new venue, the Arvada Center for the Performing Arts, in Arvada, Colorado. This year we will be returning to the Arvada Center. We received many positive comments from attendees and exhibitors from last year's conference, including, "Parking is no longer a hassle", "There were several seminars that were presented at the same time and it was difficult to choose which to attend", "The food was terrific and plentiful", "A wide variety of speakers and tracks provided something of value for everyone". A significant reduction in cost is offered for the attendees to the conference who are PLSC members, which nearly offsets the cost of a yearly membership. Please see the program lineup of speakers and presentations in this issue of Side Shots. For additional information and registration for the conference, please visit the PLSC website at www.plsc.net.

PLSC is highly involved in proposing legislation that affects surveying, education, continuing education and other relevant laws. Whether you agree or disagree with legislation that the PLSC has supported, you need to be a member to have your voice heard.

The PLSC is actively participating in the Sunset Review Process with the State Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors. The review process directly affects the laws that the surveying profession must adhere to. This effort is extremely critical and important and the PLSC is very involved. Through membership, chapters or through direct communication with the PLSC BOD, surveyors have the opportunity to have their opinions count.

The PLSC participates in the Rulemaking decisions which are made by the State Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors.

The PLSC participates in legislative activities in Colorado and at the national level.

The PLSC employs a lobbyist whose services can involve the monitoring of the State of Colorado legislature regarding upcoming proposed laws that can affect the surveying profession, to securing bill sponsorship of proposed association legislation, drafting of legislation, coordinating committee presentation, lobbying for passage of the legislation and securing gubernatorial approval.

The PLSC has a designated National Society of Professional Surveyors (NSPS) representative who attends the meetings throughout the year. This organization is dedicated to the Surveying professional and serves as our representative organization on a national scale.

The PLSC is a member of and has representatives who attend the Western Federation of Professional Surveyors meetings throughout the year. This organization of 13 states is dedicated to education, fostering common goals within the western states, and provides a western regional voice at the national level.

The PLSC is a member of the Qualifications Based Selection (QBS) Board of Directors. This organization is dedicated to the goal of basing selections by state and local governments for Architectural, Engineering and Surveying contracts upon qualifications and not only on fees.

The PLSC has informational and educational workshops at its annual meeting (as mentioned above) and through the Chapters. These workshops bring in speakers from around the state and around the country to speak on topics that are relevant to surveyors such as laws, ethics, CAD and adjustment software and latest technologies to GPS, GIS and control networks.

The PLSC sponsors educational opportunities for members and future land surveyors: The annual LSIT and PLS Refresher Course at the Jefferson County Administration Complex (for 2012), designed to help prepare survey interns to take their fundamentals and professional land surveying exams. If you have never attended this course, you may wish to consider it in the future. The Refresher Course has a lot of value to licensed surveyors as well as the interns in our profession.

The PLSC, over the past several years, has coordinated a speaker track at the annual "GIS In The Rockies" conference, further extending our profession into other related industries. This event provides an opportunity for the GIS arena of professionals to interact with, and understand more about, the surveying profession and leads to a better understanding of the similarities and differences between the two professions.

Scholarships in surveying, GIS or other mapping-related programs are available through the PLSC and the associated chapters. A dedicated committee has been formed in order to streamline the application process for the various scholarships and provide an outreach opportunity to get the word out to students regarding the availability of scholarships.

The PLSC has several regional chapters, one of which serves the area you live in. The chapters meet regularly and have workshops and guest speakers to discuss various topics of interest to land surveyors in that region. The meetings also provide members an opportunity to communicate with others and keep abreast of the latest techniques and equipment.

The PLSC has established a newer chapter, the Colorado Spatial Reference Network of the PLSC, and they have provided exposure for the organization on a national scale with participation in the NSPS National Surveying Day and assisting in the evaluation and educational outreach of GPS Reference Networks inside

and outside the State of Colorado. The CSRN is a statewide chapter and has been gaining momentum with membership and activities.

The PLSC journal, "Side Shots", is an award-winning, quarterly publication that keeps members up to date on important activities of the PLSC, the latest legislative information, articles of interest written primarily by Colorado professionals, and listings of upcoming events that would be of interest to surveyors.

The PLSC offers its members an insurance program which offers a full selection of commercial and personal lines of insurance to members of the PLSC.

PLSC members also save on UPS shipping services through our discount program.

However, all these benefits and services do not completely convey why a PLSC membership is so important to Land Surveyors in Colorado. Perhaps the most important benefit is the dissemination of information, including news of what is going on in our profession, data on the latest technologies, trends in and development of rules and legislation and government regulations, and the list goes on.

Or maybe PLSC's most important benefit is opportunity. The opportunity to network with peers from across Colorado, across the west, and across the nation through relationships with other state surveyor's societies. Another opportunity is to increase one's proficiency and efficiency through education and the acquisition of new skills in our ever-evolving technology. Being part of the PLSC provides members with the opportunity to make a difference in our profession and to our fellow citizens.

Though networking at the chapter level and the annual conference, I have personally benefited by forming relationships for teaming opportunities with fellow surveyors throughout the state that would not have been available without this networking source.

Finally, there is the benefit of active participation in the future of our profession. Surveying is rapidly changing - LIDAR, GIS and land information systems, GPS, CAD, new standards for surveys (2011). How many were involved in these just a few years ago? We are truly in the digital age. These new technologies are revolutionizing the way we do our work! We are facing higher educational standards, stricter requirements for financial responsibility and a mutual responsibility for competence. Beyond all of this lies the ability to help shape the future, in cooperation with other surveyors, doing collectively that which we cannot do ourselves. PLSC is and will be at the forefront of these developments.

I would like to encourage the membership to participate in some of our committees. We have several standing committees, some of which may need members and others that would benefit from new voices.

Some of these committees include:

- The "Nominations and Elections Committee, which makes and/or accepts nominations for the Board, and runs the elections. This committee generally handles award nominations for surveyors who have given to the PLSC, Inc. or the survey community in general.

- The Legislative committee, which composes and recommends legislation of concern to the practice of land surveying, is perhaps the strongest and most active committee of the PLSC, Inc.

- The Publications Committee handles all publications including Side Shots and brochures. JB Guyton is the Editor of Side Shots, and has taken care of the both the publication and editing of the magazine.

- The Education Committee coordinates the efforts to develop and present the annual conference, assists with the LSIT and PLS refresher courses and works with the chapters to coordinate topics and speakers for workshops. Other potential tasks could include the development of the Trig-star program and education outreach to high schools in the state to promote the surveying profession.

- The Liaison Committee has the duties to confer and cooperate with other professional organizations, educational institutions and other related organizations.

Currently they are associated with the Metropolitan State College of Denver Industrial Advisory Committee and need members to help contact organizations such as other colleges, Qualifications Based Selection (QBS) board, CEC (Colorado Engineering Council), IRWA (International Right-of-Way Association), and others.

- The Survey Monumentation and Standards Committee is assigned the task to study and recommend related standards and needs.

- The Membership Committee promotes membership benefits of the PLSC, Inc. and works to increase and maintain membership. Ideas such as mailing reminders for membership renewal, and offering free first year memberships to newly licensed surveyors and new LSI's are currently are being implemented.

- The Ethics and Fair Practices Committee has the duty to prepare and recommend a code of ethics to the PLSC, Inc. and other assignments and tasks as appointed by the board. One concern would be some of the discussion by counties on making their own standards for a quasi-ILC to be required of land surveyors. Some controversial issues challenging our profession include, but are not limited to, cutting corners on boundary surveys; City/County departments, title attorneys, lenders, or other parties pressuring surveyors to provide services outside accepted standards; technological advances eliminating the need for trained surveyors; and yes, Improvement Location Certificates also.

If we, as members of our profession, do not stand up and address these challenges, other experts may be making decisions for us. By becoming active in PLSC, Inc. committees, you can help address these issues. Member opinions and comments are welcome – we have multiple forums for these items, both through the PLSC, Inc. website "bulletin board" at <http://plsc.net/forum/forum.htm> and through submittals to *Side Shots*. We have created a Member Opinions section in *Side Shots* where submittals of that type can be printed.



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Questions

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- Print Primary Email in PDF/Printed Roster? _____
- Print Primary Contact info in Online Roster? _____
- Print Primary Email in Online Roster? _____

Default = No
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 ___ Yes ___ No
 ___ Yes ___ No
 ___ Yes ___ No

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- WCLS - Included
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- CCPS - Additional
- CSRN - Additional
- NCPLSC - Additional
- NW1/4CLS - Additional
- SCPLS - Additional
- SWPLSC - Additional
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Volunteer to participate in PLSC Standing Committees

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 Diana Askew, Executive Director
 P O Box 704
 Conifer, CO 80433
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The opportunity for 2012 membership ends July 1.
 Payments by Credit Card are only available through
 the Online Membership application at www.PLSC.net

An Article

By Jan Van Sickle, PLS, Ph.D.

GIS, Gematic Engineering and Remote Sensing are terms that have been in use for decades now. Each of them has several definitions. The variety may be explained by the rate of incredible growth and change in this period. Over the same decades modes of data collection on land, in the air and in orbit that were once intriguing possibilities are now practical and efficient tools. At the same time the capacity to manage and analyze the massive amounts of data these systems are capable of producing has not only kept pace but even outrun them in some respects. Presentation and display have evolved from computerized maps to a recognizable virtual reality. The scope has become worldwide and the applications ubiquitous.

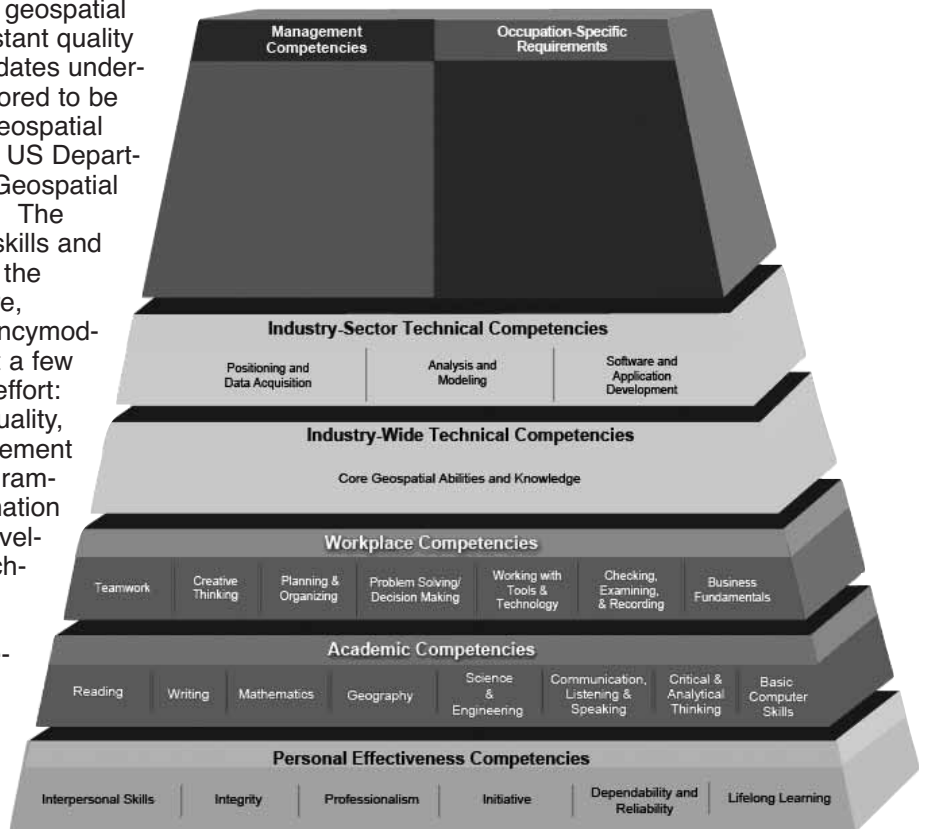
As the technologies shift, change and ultimately merge into one geospatial industry clients turn more and more to trusted consultants for advice and solutions. Professionals must become well-versed and capable of not only choosing but also applying the most efficient and cost-effective methods. Further, since information inevitably originates from all of these different sources and the client must, in the end be presented with a unified view of these data. Data integration capability is essential. In fact, integration is the largest part of the geospatial market.

It must be said that being such a purveyor of solutions has never been more of a challenge. The proper application of tools for data collections, data management processing and display such as Global Navigation Satellite Systems (GNSS), Remote Sensing and Geographic Information Systems (GIS) require knowledge in geodesy, photogrammetry, numerical analysis, IT, etc. as well as skill in measurement and communication.

In fact the growth in the required geospatial knowledge base has become so enormous and the pace of business so fast that it often seems as the Red Queen told Alice that, "It takes all the running you can do, to keep in the same place."

This obviously raises the question of education. It is simply not possible to be part of this geospatial revolution without preliminary and constant quality education. Both state and federal mandates underline the point. For example, I was honored to be asked to sit on a board with a dozen geospatial industry experts under the aegis of the US Department of Labor in order to develop the Geospatial Technical Competency Model (GTCM). The result was a profile of the knowledge, skills and abilities required for worker success in the geospatial industry. You can see it here, <http://www.careeronestop.org/competencymodel/pyramid.aspx?GEO=Y>. Here are just a few of the critical work functions from that effort: Earth Geometry and Geodesy, Data Quality, Satellite Positioning and Other Measurement Systems, Remote Sensing and Photogrammetry, Cartography, Geographic Information Systems, Programming, application development, and geospatial information technology.

Clearly, now is the time for comprehensive, robust and fully accredited programs of geospatial education. In fact, it is past time.



(Illustration: US Department of Labor)



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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CO-956
9655.2

January 3, 2012

Mr. John B. Guyton, Editor
Sideshots
3825 Iris Ave.
Boulder, Colorado 80301

Dear Mr. Guyton:

This letter is to inform you of official BLM cadastral surveys in Colorado that have been accepted from November 4, 2010, through October 28, 2011. These surveys were filed in the Public Room, Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado, 80215.

The accepted original surveys, resurveys, supplemental plats or remonumentations are listed below by township, range, meridian, group #, type, approval date and number of plats.

<u>Township</u>	<u>Range</u>	<u>Meridian</u>	<u>Group #</u>	<u>Type</u>	<u>Approved</u>	<u>Plats</u>
T. 15 S.	R. 98 W.	Sixth	1540	Plat & Notes	11/04/10	1
T. 15 S.	R. 97 W.	Sixth	1540	Plat & Notes	11/04/10	1
T. 4 S.	R. 03 E.	Ute	1534	Plat & Notes	11/04/10	1
T. 12 S.	R. 99 W.	Sixth	1538	Plat & Notes	11/09/10	1
T. 38 N.	R. 09 W.	NMPM	1561	Suppl. Plat	12/03/10	1
T. 12 S.	R. 71 W.	Sixth	1480	Plat & Notes	12/15/10	1
T. 1 N.	R. 02 W.	Ute	1142	Plat & Notes	12/28/10	1
T. 15 S.	R. 77 W.	Sixth	1537	Plat Only	03/02/11	1
T. 15 S.	R. 81 W.	Sixth	1539	Plat & Notes	05/10/11	1
T. 11 S.	R. 79 W.	Sixth	724	Plat Only	05/17/11	1
T. 15 S.	R. 75 W.	Sixth	1454	Plat & Notes	05/27/11	1
T. 17 S.	R. 72 W.	Sixth	1558	Plat Only	05/27/11	1
T. 11 N.	R. 82 W.	Sixth	1547	Plat & Notes	06/07/11	1
T. 15 S.	R. 68 W.	Sixth	1494	Plat & Notes	06/07/11	3
T. 41 N.	R. 7 W.	NMPM	1527	Suppl. Plat	07/01/11	1
T. 7 S.	R. 69 W.	Sixth	1541	Plat & Notes	07/07/11	1
T. 9 N.	R. 78 W.	Sixth	1544	Plat & Notes	07/15/11	1
T. 9 N.	R. 79 W.	Sixth	1544	Plat & Notes	07/15/11	1
T. 1 N.	R. 71 W.	Sixth	1564	Suppl. Plat	08/03/11	4
T. 11 N.	R. 88 W.	Sixth	1553	Plat & Notes	08/04/11	1
T. 12 N.	R. 88 W.	Sixth	1553	Plat & Notes	08/04/11	1
T. 14 S.	R. 68 W.	Sixth	1535	Plat & Notes	08/10/11	1
T. 35 N.	R. 8 E.	NMPM	1569	Plat & Notes	08/10/11	1
T. 33 N.	R. 17 W.	NMPM	1552	Plat & Notes	08/19/11	1
T. 1 S.	R. 76 W.	Sixth	1551	Plat & Notes	09/13/11	1
T. 1 S.	R. 77 W.	Sixth	1551	Plat & Notes	09/13/11	1
T. 42 N.	R. 10 E.	NMPM	1446	Plat Only	09/22/11	1
T. 2 S.	R. 1 E.	Ute	1567	Plat & Notes	10/13/11	1
T. 26 S.	R. 71 W.	Sixth	1515	Plat & Notes	10/28/11	1
T. 11 N.	R. 89 W.	Sixth	1553	Plat & Notes	10/28/11	1

As other surveys are completed, I will advise you of their acceptance. You may circulate this letter among the membership of the Professional Land Surveyors of Colorado.

Sincerely yours,

Randy Bloom
Chief Cadastral Surveyor for Colorado

Sunset Review Explained

By Alan Blair, PLS

The PLSC is providing input this year as the laws regulating the professions of engineering, architecture and surveying undergo a statutory sunset review. What is a sunset review? A little 21st century research provides the following information:

“Generally, a sunset law is a law that automatically terminates a state regulatory agency, board, or function of government on a certain date. A state legislature must act to continue the entity or function by passing a bill. Sunset laws cause legislatures to periodically review the need for state regulation or for advisory committees and to update the law creating the entity or function. These reviews seek to balance the need for regulation to protect the public interest with the need to ensure that industry and professions are not over-regulated.” (Source: <http://www.colorado.gov>) And, more specifically:

“The AES Board (Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors) is just starting to undergo the sunset analysis required of all regulatory programs in the state of Colorado.

The analysis is performed according to criteria set out in state law by DORA’s Office of Policy, Research and Regulatory Reform. Information about sunset criteria, submitting comments online about a sunset review, and other background can be found at www.dora.state.co.us/opr.

Until early June 2012, the analyst reviewing the AES program, Bryan Jameson, will be gathering data, views, and information to evaluate whether the program should be continued without changes, continued with changes, or terminated. During the 2012 summer, he will write his analysis and recommendations. The sunset report will be published on October 15, 2012 and submitted to the General Assembly. Hearings will be conducted in the Legislature during the 2013 Session to determine if changes should be made to the statutes.

During this review of the program, anyone is welcome to provide their input to the analyst, either through the online option at the link above or by contacting him directly at bryan.jameson@dora.state.co.us.” (Source: <http://www.dora.state.co.us/aes/board/SunsetProcess-forAESBoard.pdf>)

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What could the review mean to surveyors, engineers and architects licensed with the State of Colorado? For those answers, I spoke with two experts on the protocols and politics of the process: Larry "Lefty" Leftwich and Paul T. Wrightwing.

First, Mr. Leftwich has this to say:

"This is an opportunity to continue and strengthen the DORA's powers to protect the public from predatory and incompetent vendors of professional services. The uninformed citizen is at the mercy of the low cost surveyor who does not follow the law and undercuts the diligent well-educated professional. I believe increased surveillance by the DORA is the only hope to preserve our proud tradition of diligent attention to detail and adherence to additional laws designed to clean up the profession. I further suggest that license fees be raised significantly to pay for the increased regulation."

For another opinion, Mr. Wrightwing offered this:

"The entire regulatory process exists to provide protection for the professional who cannot stand competition. The market economy is the only place to manage winners and losers in a capitalist society. Regulation and higher fees reduce access to services and goods and increase costs. Poor performers will not last long in a truly open market. I believe that consumers are far more competent than is generally perceived by the pro-

ponents of the Nanny State. Incompetence is consistently eradicated by the savvy consumer and should not be left in the hands of an equally incompetent government (is that redundant?) agency."

As chair of the legislative committee, I have participated in teleconferences with representatives of the other two professions to present a united position in providing input for the analyst. The engineers have suggested 3 issues for which they will seek legislative action:

1. Elimination of the municipal exemption
2. Continuing education requirements without a requirement to demonstrate continuing competency.
3. A Qualifications Based Selection requirement for government contracts similar to the Brooks Act (<http://www.acec.org/advocacy/committees/brooks.cfm>) requirement for federal government professional services contracts.

The PLSC BOD is discussing their position on these issues and other possible positions to present to the analyst.



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A Short Analysis of a Portion of the 2009 BLM Manual

Presented Humbly by Earl F. Henderson, PLS

I want to present my humble, and only partial analysis of Parts 7-1 and 7-2 of the 2009 Manual of Surveying Instructions. For the readers' benefit, they are reprinted here:

7-1. When every means of identifying the original position of a corner has been exhausted, the surveyor will restore the lost corner by applying proportionate measurement, which harmonizes surveying practice with legal and equitable considerations involved in controversies concerning lost land boundaries.

7-2. A *Lost Corner* is one whose original position cannot be determined by substantial evidence, either from traces of the original marks or from acceptable evidence or reliable testimony that bears upon the original position, and whose location can be restored only by reference to one or more interdependent corners.

Thus, if substantial evidence of the position of the original corner exists, it is an existent or obliterated corner. This position shall be employed in preference to applying the rule that would be proper only in the case of a lost corner.

In addition, once a corner is considered lost, it is the surveyor's responsibility to assure that the restoration method and the restored position comply with the statutory protection of bona fide rights requirements delineated in 43 U.S.C. 772 and 773 and as described in this Manual.

Underlining has been added, although I had a difficult time not underlining the entire passage.

First, I think it's important to note that the 2009 Manual is an update from the 1973 Manual.

The BLM hasn't changed their attitudes how surveying should be performed, and they shouldn't, because the laws governing surveying haven't changed. They've simply updated the language. That being said, there's nothing that I know of in the 2009 Manual that contradicts the 1973 Manual or any previous Manuals for that matter. The processes we must use in completing a survey of the public lands are still the same.

Second, there are some differences between surveying in the Public Land Survey System and in areas not covered by that system, such as a residential subdivision, but for the most part the concepts contained herein can be applied to virtually any retracement survey because our Common Law, through various court decisions, has confirmed them. And let's be honest, retracement surveying is the vast majority of the boundary work we do these days.

Now to the heart of the matter. In 7-1 did you read the words "every means"? That's a lot of means. Sometimes a fence is just a fence and sometimes it's not. That's why we get paid the big bucks, to make that determination. And that's only one means. But when you think about the whole sentence it says that in order to proportion a corner location you must first declare it "lost" and you can only declare it "lost" if you have exhausted every possible way to restore it. There are some that feel that there is always some means so it's impossible to ever declare a corner lost. But there's no disagreement legally that proportioning a corner location is a last resort. It means you've given up. It means every possibility of finding the original location has been exhausted, just like you are if you've done that much. But it also means something more, that

your primary obligation, in every retracement survey, for every corner, is to find the original corner by the best available evidence. That should be your mindset at the outset, not the end, of every retracement survey.

But I'll bet a lot of surveyors haven't put 7-1 together with the first paragraph of 7-2. The underlined portion of 7-2 says that testimony is a means. Therefore, if you follow this to its logical conclusion, you can only proportion a corner after you've already spoken to somebody, hopefully everybody. I've even been known to call my mommy before proportioning a corner, just for moral support. How many monuments can you imagine have been proportioned with that surveyor never having picked up the telephone? I'll bet it's more than one or two. Let's say you're retracing a Quarter Section for a farmer and the other 3 Quarter Sections are each owned by different farmers, and you can't find a monument for the center of section. Big surprise huh? You can't intersect the lines from the Quarter Corners to get the center of section until you've spoken to at least 4 people. And, if all four of those people testify that the fence corner is their property corner and has been for generations since it was first surveyed, and your research shows that all four properties are described as aliquot parts, where's the center of section? I hope no one thinks it's not at the fence corner, even if the intersection point is 33' away. If all you have is the testimony and the fence corner location then that's the best available evidence of the original corner location since it's the only evidence.

And this brings us to the last underlined portion, bona fide rights. The last portion of 7-2 says



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that it's our responsibility to protect bona fide rights. What the hell does that mean? I'll tell you. First, notice that 7-2 refers to the U.S.C. so this concept is not limited to Public Lands surveys. But in the situation above, the bona fide rights of the four property owners are distinct. They each believe that the agreed upon fence corner is their property corner and their property corner is the center of section by reference to their deeds so you don't have the right to change that. In fact, you have the *responsibility* to *protect* that. The fence corner is the center of section regardless of the mathematics. This is all the more reason NOT to proportion a monument to a location other than the fence corner. If a monument is set by proportion, that surveyor has acted against the bona fide rights of the farmers because now their deed description of an aliquot part doesn't appear to go to the fence corner, the physical evidence of their long held bona fide rights, but to some new monument nowhere near the fence corner. Two farmers have gained property and two have lost property with regard to their bona fide rights. And that surveyor can be held accountable for their actions. If a surveyor did such a thing, it could lead to the end of long friendships between neighbors, to lawyers and even to law suits. And when the judge rules against the proportioned monument, who do you think these mad as hell farmers are going to come after to recoup their legal fees? Not me.

STATE BOARD UPDATE

By Angie Kinnaird Linn, Program Director
State Board of Licensure for Architects, Professional Engineers,
and Professional Land Surveyors

Welcome to the New Year! Hopefully, it is a better one for the industry and the economy all around us.

Just like you, we have a lot going on at the Board these days. The following updates are some of the major priorities that may be of interest to you.

License Expiration Dates Have Changed for Architects, Professional Engineers and Professional Land Surveyors

By now, all Architects, Professional Engineers and Professional Land Surveyors who have an active license, an inactive license, or a retired license, should have a license with an expiration date of October 31, 2013.

Those who don't have a 2013 expiration date on their license may have an expired license. Licensees with expired licenses must apply for reinstatement to return their license to active status and continue practicing in the state of Colorado. Check the status of your license online at www.doradls.state.co.us/alison.php. If you need to apply for reinstatement of your license, click on the link to your profession in the Licensee/Applicant Services Box from the Board's homepage at www.dora.state.co.us/aes.

What do we hope to accomplish with this change to a common license renewal expiration date for all licensees?

- Having one expiration date for all Engineers and Land Surveyors eliminates renewal fee inequities. Currently, if you renew in June, you often may pay a different fee than if you renew in July, due to the change in our fees with the transition in fiscal years.
- Having one expiration date for all three professions associated with the AES Board (Architects, Engineers, and Land Surveyors Board) allows us to leverage communication channels through the Board's tools, industry association resources, and professionals talking to one another, to raise awareness of the renewal period. The anticipated outcome is fewer professionals practicing with an expired license and fewer disciplinary actions, both of which would be beneficial to consumers and to licensees.

- Having one expiration date for Engineers and Land Surveyors over the two-year license period increases our Division's efficiency by accomplishing the renewal process once instead of continually during that timeframe.

Again, it is very important to keep your contact information, *especially your email address*, current by visiting the Division homepage at www.dora.state.co.us/registrations and clicking the button on the left titled "Registrations Online Services."

The Sunset Process for the AES Board is Underway

The AES Board is undergoing the sunset analysis required of all regulatory programs in the state of Colorado.

The analysis is performed according to criteria set out in state law by the Department of Regulatory Agencies ("DORA") Office of Policy, Research and Regulatory Reform. Information about sunset criteria, submitting comments online about a sunset review, and other background can be found at www.dora.state.co.us/opr.

Until early June 2012, the analyst reviewing the AES program, Bryan Jameson, will be gathering data, views, and information to evaluate whether the program should be continued without changes, continued with changes, or terminated. He will write his analysis and recommendations in the summer of 2012. The sunset report will be published on October 15, 2012 and submitted to the General Assembly. Hearings will be conducted in the Legislature during the 2013 Session to determine if changes should be made to the statutes.

During this review of the program, anyone is welcome to provide input to the analyst, either through the online option at the link above or by contacting him directly at bryan.jameson@dora.state.co.us

Rule Changes on January 1, 2012 Affecting Surveyors

There are a few changes to the AES Board rules effective January 1, 2012 to make you aware of, all of which you may find at www.dora.state.co.us/aes/lawsrulespolicies.

Surveyor Applicants:

- Effective January 1, 2012, applicants who have been denied permission to take an examination for lack of experience credit have a specific timeframe within which to gain the credit and request reconsideration before the application is purged. Please refer to Board Rule 4.3.5.
- The requirements for a Board-approved 2-year surveying degree and a Board-approved 4-year engineering degree have been clarified. Please refer to Board Rules 4.7.2.2 and 4.7.2.3.

Licensed Professional Land Surveyors:

- A new rule regarding grading and drainage certificates and the responsibilities of Professional Land Surveyors has been promulgated into **Board Rule 6.2.3**.

Online Land Surveyor Monument Records System

During presentations to many of you in the past year, I made the representation in good faith that our online monument records system would be upgraded to a more robust database platform by the end of 2011, at the latest. That was based on good information at the time. Unfortunately, in the information technology world, things change. Things such as this are also not within my control and I apologize for making statements that raised expectations unnecessarily. My excuse is that I was excited about this positive change.

The good news is that the project is in the queue and slated for 2013. But, don't ask me to bet on that...today, anyway! Thank you for your patience and understanding on this issue.

Survey Quorum Opinion – Who can specify the establishment of the Basis of Bearing?

At the June 10, 2011 meeting of the Survey Quorum, there was a request for opinion regarding a county directing how and what to use for the basis of bearing, instead of allowing the Professional Land Surveyor to make that decision. The inquiry asked the following questions:

1. Is the Basis of Bearing Statement on a plat solely the responsibility of the licensed surveyor or can it be changed, modified or dictated by others? If so, by whom, and to what extent?
2. Is the policy of requiring a new basis of bearings every time a property is surveyed consistent with land surveying practice and procedures?
3. Do these requirements constitute practicing land surveying?

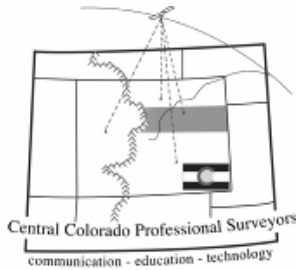
The Survey Quorum responded that:

1. There isn't a statute that states that "establishing a Basis of Bearings is the sole responsibility of a PLS." Section 38-51-106(e), C.R.S., only requires a statement by a Professional Land Surveyor explaining how bearings were determined.
2. Counties have been requiring subdivision plats be tied to their surveys and control systems for years, so this would appear to be the standard of practice.
3. Section 30-28-133, C.R.S., gives counties the responsibility for establishing subdivision regulations, so this would not constitute the practice of land surveying.

A client or government entity can require that certain monuments be used for the basis of bearing. The surveyor shall ensure the basis of bearing statement shall use one of the methods described in Board Rule 6.8.3, showing the mathematical relationship from the basis of bearing line to the survey, and label the basis of bearing line.

For reference to past opinions from the Quorum or the AES Board on the subject of Land Surveying, check out the Surveyors Q & A page on the AES website at www.dora.state.co.us/aes/surveyorsQA.

Let us know if you have any questions or concerns about any of these topics at aes@dora.state.co.us.



2012 Colorado Land Surveying Refresher Course

The Professional Land Surveyors of Colorado are offering a comprehensive Land Surveying Refresher Course beginning January 4, 2012. This course offers a review and self-study plan for those taking the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Surveying (FS) and Principles and Practice of Surveying (PS) examinations. The course is designed to aid candidates in developing and expanding exam-taking proficiencies.

Fundamentals of Surveying

<u>Session</u>	<u>Date</u>	<u>Topic</u>	
1	Wed., Jan. 4	Overview of NCEES Examination Basic Calculations/Use of Calculator	Alan Blair Gaby Neunzert
2	Wed., Jan. 11	Basic Calculations	Gaby Neunzert
3	Wed., Jan. 18	Horizontal and Vertical Curves	Gaby Neunzert
4	Wed., Jan. 25	Field Data Acquisition and Reduction	Gaby Neunzert
5	Wed., Feb. 1	Public Land Survey System	Randy Bloom
6	Wed., Feb. 8	Boundary Law I	Ed T. Bristow, Esq.
7	Wed., Feb. 15	GIS, State Plane, Geodesy	Dr. Jan Van Sickle

Principles of Practice and Colorado Specific

8	Wed., Feb. 22	Boundary Law II	Ed T. Bristow, Esq.
9	Wed., Feb. 29	Colorado Survey Law I	Roger Nelson, Todd Beers
10	Wed., Mar. 7	Colorado Survey Law II	Todd Beers, Roger Nelson
11	Wed., Mar. 14	Professional Practices	Alan Blair
12	Sat., Mar. 17	Mock PS and FS Examinations	Gaby Neunzert, Randy Bloom

The Wednesday evening classes will be 3 hours in length, starting promptly at 6:00 PM. The Saturday, March 17 session will consist of a mock FS and PS (including Colorado Specific) NCEES examination. The exam will start at 8:00 A.M. and end at 12:00 Noon.

Registration, Fee, Location

The fee for the entire course is \$400, or \$75 per 3-hour block taken individually. Online Registration will begin October 25, 2012. Visit <http://www.plsc.net/> to register and for further information. Classes will be held in the Fairmount and Morrison Rooms of the Jefferson County Courts and Administration Building (The Taj Mahal), 100 Jefferson County Parkway, Golden, CO. Use the parking lot and main door on the east side of the Admin and Courts building. Signage will lead you to Room 1552/1565. Contact Randy Bloom, 303-239-3856 for questions.



Faculty, left to right: Ed Bristow, Esq., Randy Bloom, Alan Blair, Diana Askew, Gaby Neunzert, Roger Nelson, Mike Greer, Todd Beers, and Dr. Jan Van Sickle.

(Photo by J.B. Guyton)

PLSC Board of Directors Meeting Minutes

October 5, 2011, 4:00 P.M. Conference Call

- Call to Order: 4:05 PM
- Recognition of PLSC Board Members and Officers:

Present: Officers; Roger Nelson, Mike Bouchard, Terry Maw, Diana Askew

Board: Todd Beers, Bill Buntrock, Gary Gable, Patrick Green, Peter Kent, Stan Vermilyea, Parker Newby

Exofficio: Kayce Wohlman

Nonvoting: Warren Ward, J.B. Guyton, Brian Dennis

Absent: David DiFulvio, Peter Krick, J.J. Rhineck,

Meeting was called to order at 4:05 P.M. - A Quorum was present.

- Welcome of Guests: Brian Dennis
- Additions, deletions and modifications to agenda:
 - No deletions or modifications – agenda approved.
 - Secretary - Treasurer; Terry Maw

Approval of Minutes from Previous meeting (8/17/2011): Motion by Kent to approve minutes as written, second by Gable. Discussion: No discussion, the motion was called. 8/17/2011 BOD Meeting Minutes was approved unanimously.

Roger has spoken to Peter Krick to serve remainder of Gene Kooper's board term. Motion by Todd to approve Peter Krick to serve remainder of Gene's term, second by Kayce. Todd - Peter was next on list of directors, is the last election after Rob Snodgrass. After no more discussion, motion passed unanimously.

Appointment to Chair Legislative committee. Roger asked for volunteers to chair the Legislative Committee. No acting PLSC Board member volunteered. The PLSC

Board approved the appointment of a non-board member to chair the legislative committee. Roger Nelson appointed Alan Blair to serve as legislative committee chair.

Bob Stollard's House. Diana has kept in contact – no further movement on issue – tabled.

PLSC 2011 Budget: Terry and Diana met in September and discussed items to cut/trim and talked about items to increase PLSC income – more members, summit and others. Roger – be conservative on budget. Need budget with what has been paid out to be given to the BOD at each meeting to see where we are financially. Budget – paid – to see what's left. Discussion on ways to reduce budget expenses – *Side Shots* to be electronic only or partially electronic – reduce print copies possibly to twice a year and electronic twice a year – cost of Side Shots +/- \$4 per copy might not realize much of a cost saving – stop or reduce courtesy copies – put a half page article in *Side Shots* that we are not going to send out courtesy copies and are going to an electronic copy. Motion by Todd for JB to announce our plan to cut out the vast majority of courtesy copies of *Side Shots* to non PLSC members and reference how to get an electronic copy, second by Patrick. Roger - *Side Shots* will be available on our Web site, if we cut off half of the copies we won't get a 50% savings on printing costs, probably a 33% savings. Motion passed unanimously. JB to phrase announcement appropriately.

2013 Sunset Review Process: Roger, need someone to chair and drive the committee to protect society – need to make decisions – need someone on the front range (see vote to appoint Patrick Green as chairman), JB, KC or Brian would

work. Roger – tried to keep to 1 to 1½ hours – went down to legislature during committee meetings? about 12 hours of work. Di, Gene and Roger have met with Engineer/Architects to plan how things should be done and set what is being proposed to the larger committee to protect surveyors. Any volunteers – need by next week. Can I get approval to appoint a non BOD member? Motion by Gary – Give Roger permission to solicit non BOD member to chair Legislative committee for the remainder of Gene's term. Second by Terry. There being no discussion, motion passed unanimously.

Status of research pertaining to Warren Andrews letter regarding donation for memorial for past PLSC Presidents – Stan talked with plaque maker – needs style, needs size and detail. Brass plaque with brass tags, etc – discussed style – Stan will get cost of plaque.

2012 Surveyor's Summit Status: Todd – slate of speakers set – sent to Di and JB to put in *Side Shots*. JB, summit program will be in next issue of Side Shots. Roger – suggestion – have seen other conferences have a plat contest – entry fee of \$20, award prizes – gift certificate for winner. Mike – Westfed would like to participate. New chairman to talk to us, not necessary on our own nickel – would appreciate help. JB - Westfed does a great program. Todd – part of program at the annual meeting – show value of being a PLSC member – things that have been accomplished.

Sample Affidavit of Correction. Roger – inquire about affidavit samples put on web site. Roger will resend to BOD to vote about putting on web site.

Reports:

President – no report

Vice President - No report

Secretary-Treasurer –
Treasurer's report -Patrick requests funds from the scholarship funds.
Motion – Patrick – To provide \$1000.00 of scholarship funding to WCLS for scholarships. Bill seconded. No further discussion. Motion passed unanimously.

Executive Director – no report

NSPS Governor – no report

Westfed – see report

MSCD – report in *Side Shots*

Committees

Legislative - no report

Survey Monumentation and Standards – no report

Membership – no report

Ethics and Fair Practices – no report

Education – at Thursday's Summit meeting wants representatives from each organization to meet, greet and discuss concerns – make it mandatory – chapters participation – open to all chapters – mini summit.

Liaison– no report

Special – no report

Trig Star – no report

GIS-in-The-Rockies – no report

Chapters

Southern – no report

Central – no report

Northern – no report

Northwest 1/4 - – no report

Western – no report

Southwestern – – no report

CSRN –no report

Next Meeting Date and Location:
December 15, 2011, 4:00 P.M.
Merrick conference room.

Being no further business, Maw moved and Beers 2nd to Adjourn.

Adjourned at 5:47 P.M.

Respectfully Submitted
Terry R. Maw
Secretary, PLSC



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PLSC Board of Directors Meeting Minutes

December 15, 2011, 4:00 P.M. Conference Call

- Call to Order: 4:08 P.M.

- Recognition of PLSC Board Members and Officers:

Present:

Officers; Roger Nelson, Mike Bouchard, Terry Maw, Diana Askew

Board: Todd Beers, Bill Buntrock, Patrick Green, Peter Kent, Peter Krick

Exofficio:

Nonvoting: Warren Ward, J.B. Guyton

Absent: David DiFulvio, Gary Gable, Peter Krick, J.J. Rhineck, Stan Vermilyea, Parker Newby, Kayce Wohlman

Meeting was called to order at 4:08 P.M. - A Quorum was present

- Welcome of Guests: Brian Dennis, Pamela Fromhertz,

- Additions, deletions and modifications to agenda:

Nelson – Add report from Pam Fromhertz – agenda approved with addition.

Colorado State Geodetic Report – Pam Fromhertz – NGS is transitioning from a State Advisor Program to a Regional Program by 2016. Geoid12 will be available soon.

Approval of Minutes from Previous meeting (10/05/2011): Motion by Beers to approve minutes as written, second by Bouchard . Discussion: Nelson has corrections – appointment to committee chair, there being no further discussion the motion was called. 10/05/2011 BOD Meeting Minutes was approved unanimously.

PLSC Scholarship procedure/ committee. Discussion concerning the makeup of the committee and procedures for use of scholarship funds. Motion by Maw, second Beers: Nelson to contact chapter presidents to get volunteers for the Scholarship Committee. No further discussion, motion passed unanimously. Nelson will try to contact within 2 weeks.

Bob Stollard's House. Askew has kept in contact with Dave Pehr– no further movement on issue. Motion by Bouchard, 2nd by Beers: Move forward with acquisition of the property, have Dave Pehr go forward and petition the court to review the will. After discussion motion called, passed unanimously.

PLSC 2012 Budget: After discussion of Northern, Central, Southern and CSRN proposed budgets, lobbyist and QBS dues; Motion by Green, 2nd By Beers to accept the 2012 proposed budget as submitted with possible changes to the budgets of the Northern, Central, Southern and CSRN chapters and include fees for a lobbyist at the \$1250.00 level. There being no further discussion, Motion passed unanimously.

QBS Colorado – Gary Gable has informed President Nelson that he can no longer make the QBS Board meetings and suggests that he be replaced on that Board. After discussion matter tabled.

2013 Sunset Review Process: Meeting 12/16 @ 8 A.M., Nelson will attend and take notes.

PLSC Treasurer's Report - As of 12/14/2011				
Account	9/30/2011 Balance	10/31/2011 Balance	11/30/2011 Balance	12/14/2011 Balance
Bank Accounts				
Checking General PLSC Inc	19,917.27	14,649.22	10,886.91	6,815.25
Checking PLSC Scholarship Fund Inc	3,385.62	2,285.62	2,185.62	2,085.62
Savings PLSC Inc	30,302.29	30,308.72	30,314.74	30,314.74
Savings PLSC Scholarship Fund	49,491.05	49,601.57	49,711.45	49,811.45
TOTAL Bank Accounts	103,096.23	96,845.13	93,098.72	89,027.06
Scholarship Fund Investment Accounts				
ICA	25,362.95	25,362.95	25,362.95	27,568.72
Investment at Merrill Lynch Investment	19,934.85	19,934.85	19,934.85	22,574.45
WMIF	25,006.62	25,006.62	25,006.62	25,233.69
TOTAL Investment Accounts	70,304.42	70,304.42	70,304.42	75,376.86
OVERALL TOTAL	173,400.65	167,149.55	163,403.14	164,403.92

a. Lobbyist: See Budget motion and Vote.

b. Sample affidavit of Correction: Legislative Committee working on a sample affidavit.

Status of research pertaining to Warren Andrews letter regarding donation for memorial for past PLSC Presidents – Tabled by unanimous consent.

PLSC Website, Updates, Protocol, etc. – Discussion on updating, content and ease of use. A committee of Brian Dennis (chair), Bill Buntrock, Roger Nelson and Terry Maw, will review the web site and offer suggestion for an update.

2012 Surveyor's Summit Status: Beers –needs help with someone to assure completion of assignments. Diana has the conference online signup ready to go.

Chapter Disbursements - Motion by Beers, 2nd by Buntrock. PLSC make a disbursement of \$3,000.00 for the Central chapter and \$750.00 to the Southern chapter. After discussion, motion called, passed unanimously.

PLSC 2012 Main Goals – Nelson – the PLSC needs to have 3 primary goals for 2012, they need to be challenging, stretching and attainable. After discussion and suggestions no consensus was reached.

Reports:

President – no report

Vice President - No report

Secretary-Treasurer – Treasurer's report and previous BOD minutes submitted and voted on.

Executive Director –Submitted account balances and verbal report during meeting.

NSPS Governor – next meeting up in the air, possible to have NSPS meeting at our Summit, Ward to breach subject with NSPS.

WFPS – next meeting Jan. 21, 2012 in Tempe, Az. Bouchard to attend.

MSCD – moving courses to online, not going anywhere.

Committees reports - tabled

Chapters reports - tabled

Next Meeting Date and Location: February 9, 2012, 4:00 to 5:30 P.M. Merrick conference room.

Being no further business, Maw moved and Beers 2nd to Adjourn.

Adjourned at 6:36 P.M.

Respectfully Submitted
Terry R. Maw
Secretary, PLSC

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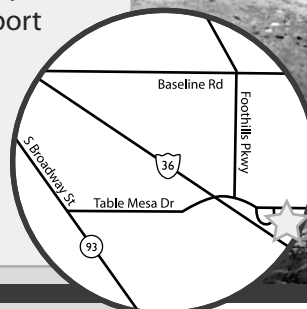
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CCPS

2011 is now history. CCPS elections are over and our new board is looking forward to 2012 activities. The officers are James Rihaneck, PLS, President, replacing Earl Henderson, who took a position with the State Board. Chris Raml, PLS, Vice President; Randy Zerr, PLS, PE, Secretary; Aaron Willis, PLS, Treasurer. The Directors returning for another term are Eldon Knoll, PLS; David Kuxhausen, PLS and Shawn Clarke, PLS. The newly elected directors are George Robinson, PLS and John Wilhelm, PLS, CFedS. We are looking for 2 people to take the remaining year term of Chris and Randy as they moved up so please consider being a Director for a year and contact any one of the current Directors.

Our General Meeting schedule for 2012 is:

January 26th –Table Mountain Inn - Golden
 April 26th- Double Tree – Iliff and 225 - Aurora
 June 28th – Table Mountain Inn - Golden
 August 23rd –Double Tree-Iliff and 225 - Aurora
 October 25th-Table Mountain Inn - Golden

Hope to see a lot of people at these as we get some exciting topics.

James (JJ) Rihaneck, PLS
 CCPS President

CSRN

Another year comes to an end and the CSRN, with bright new ideas, will bring in the New Year. Each year we have an election of various positions on the CSRN Board and for the first time we have added two members to the CSRN Board from non-surveying professions. This was always a goal of the CSRN to include members from adjacent professions to expand and

conduct outreach per our constitution and bylaws, and we finally have done it. First, I want to thank the outgoing CSRN Board members. Without their time, dedication and actions we would not be where we are today. Thank you! The 2011 outgoing Board members are Todd Beers, Treasurer; Pam Fromhertz; and Mat Barr, Vice President.

I am very excited to introduce and welcome our incoming 2012 CSRN Board members: Directors - Jon Doty, Larry Rector and Harold Schuch. In addition, the remaining CSRN Board members are: President - Brian Dennis, Vice President - Eric Carson, Secretary - Jan Sterling, Treasurer - Chris Duda, Director - Larry Devries and Director - Jack Sparks. WELCOME! The new members and positions as a result of the elections will be officially installed at our first meeting of the year, January 18, 2012.

We have begun working on our 2012 goals which include posting the PLSC and supporting chapter's scholarship opportunities on the CSRN website under a new tab on the front web page labeled "Scholarships". This is to address the ongoing dilemma of chapters having scholarship opportunities but not having a centralized place to post or make known those opportunities to eligible candidates. The CSRN website now provides that resource. We have already spoken with several of the chapter Presidents and Curt Sumner with ACSM/NSPS and so far everyone is excited to participate at different levels. For 2012 we will make contact with all of the chapter Presidents regarding this idea and how to move it forward.

The CSRN will be participating in the 2012 Surveyor's Summit March 1-3. We have already committed speakers for the CSRN track and are well on our way to participating in a great event. The CSRN track will be focused on GPS and on Surveyor to GIS work flows, including data transformations and passive networks.

The CSRN is now discussing its role in the legislative process through the PLSC legislative committee. The CSRN would remain focused on GPS and geodetic related items such as GPS positional tolerances or State Plane Coordinates and such to see if there is a need for a new statute or Board Rule or if an old Statute or Board Rule needs to be updated to better reflect the times with the active GPS RTN's now in play. If you have an idea or thoughts on current or non-existent Statutes or Board Rules, contact us.

The CSRN will also be representing Colorado in the 2012 Surveying USA Day. We have not received information as to the date yet but we will let everyone know as soon as we have it. We are planning on an even larger event than we had last year which had over 120 people in attendance. Stay tuned for updates and information. The CSRN has already started discussions for participating in the 2012 GIS in the Rockies conference in September. We will provide more details and information on our involvement as the event gets closer.

We are discussing increasing our involvement with the Boy and Girl Scouts of America for 2012. The CSRN believes this is an important part of our outreach effort to engage the youth. We have focused on the Scouts due their increased exposure to GPS for trails and maps. We want to further expose the youth to the fundamentals of GPS and to the Surveying and adjacent professions. If you are a Troop Leader or know someone who is and also believes this is a great opportunity to reach out to the youth and introduce them to Land Surveying and geodesy, contact the CSRN at info@csrn.us and let us know. If we don't show Land Surveying as a relevant profession to the youth now, Land Surveying may become a lost profession. Remember, eventually someone has to be there to replace us as we retire or move on to other things. The more

help and participation we have on this matter the stronger and more durable our profession becomes, I believe.

The CSRN has been monitoring the LightSquared issue. At this time, no resolution has been put in place. There are discussions about potential filters but no filter has been designed yet that resolves the problem fully. We will provide information through Side Shots when a resolution is complete so everyone will know what needs to be done to reduce or eliminate any unwanted effects.

We have begun efforts as an advisory panel with a Colorado jurisdiction and two of the Colorado RTN providers. This has been a goal of the CSRN for several years but we had to establish ourselves as a credible resource regarding RTNs and I believe we have accomplished that goal and will continue this effort through 2012 and the future. I am not at liberty to release the names of the persons or jurisdiction at this time that are involved, since we are very early into the process, but we can say our efforts are paying off and the Colorado RTN end users are the beneficiaries.

This is just a sampling of the ideas and efforts already initiated for the 2012 year. Looks like an active year for us and those involved. We always need people to participate. If some of these ideas appeal to you and you want to participate, contact us or visit our website at www.csrn.us.

We look forward to hearing from you soon!

Brian Dennis, PLS
CSRN President

NC-PLSC

Presently the Northern Chapter is obtaining final comments on our Colorado Laws Booklet for 2012

and will be going to print in February. Paul Bacus has been spearheading this endeavor and the surveying community benefits from his laborious efforts. Angie Kinnaird-Linn has been kind enough to review this document and provided us with lots of comments. DORA is very excited about this effort and looks forward to its statewide distribution. Please plan on picking up this booklet for yourself or your company at the PLSC conference this upcoming March for a nominal fee.

The Northern Chapter is still working on the records preservation issue for Larimer County. Recently a meeting took place between key County representatives and our Chapter's representative, Laine Landau. The goal of the meeting was to develop action items leading to the preservation of Exemption Plats and Boundary Line Adjustments currently housed in the Larimer County Planning Department files. All parties are in agreement that the goal is worthwhile and a list of action items was developed. The NC-PLSC was tasked with figuring out how we can assist in providing the necessary labor and to elicit funds from whatever sources we can find. We have volunteered to provide expert labor to the effort but due to concerns about liability, Chad Washburn, a Larimer County official, is looking into the possibility of appointing specific PLSC members as deputies. While we would still be unpaid, the thought is that the County's insurance would provide an umbrella under which to operate. For anyone interested in potentially being appointed for this task, please inquire Laine Landau (laine.landau@gmail.com) for more information.

As identified last spring, funding for the recording fees has remained the biggest obstacle in the effort to preserve these records. The Northern Chapter intends to donate a minimum of \$500 toward fees with the possibility of more. If any

members would like to make a specific donation earmarked for the preservation of the Larimer County Planning Department Exemption Plats and Boundary Line Adjustments through re-recording clean scanned images, please send donations to PLSC, Northern Chapter c/o Rob Hintz rhintz@fcgov.com

Kayce D. Wohlman, PLS
President, NC-PLSC

NW 1/4 CLS

Well, we have hit the end of 2011 and survived another year. Up here in NW Colorado the big story is the continuing economic downturn, which was discussed during our last Chapter meeting held November 3rd at a local Steamboat Springs watering hole. Turnout for this meeting was slim, however we hope to have better turnout next year!

Discussion regarding the local and national economy centered on what opportunities land surveyors could explore, including construction surveying, and energy exploration. Needless to say, land development and land transfers are a little down from what we are used to. Some of the other things discussed were the continuing LightSquared controversy, the continuing expansion of GNSS with the launch of Chinese and European satellites, and what the future will bring in the GNSS arena. We also continued our discussions regarding the re-establishment of section and 1/4 section corners, and the controversies created when re-established positions do not agree with previously accepted 2nd or 3rd generation monument locations. Can you say "corner of common report"?

In the meantime it has been sunny, warm and dry up here (not a good thing for the skiers!) We are hoping for snow, and looking forward to 2012! See you all next year!

Jeffrey A. Gustafson, PLS
Secretary-Treasurer, NW1/4

SCPLS

On December 9th the Southern Chapter held its annual Christmas party at La Renaissance in Pueblo. This year almost 30 people gathered together to meet new friends and reconnect with old ones. Everyone there enjoyed a wonderful meal and refreshments.

After dinner we had a Chinese auction that brought a lot of fun and laughter as people kept "stealing" gifts from each other.

The election of Chapter officers is underway and the new officers will be installed at our meeting in February.

Thank you,
Mark Johannes
President, SCPLS

SWC/PLSC

The PLSC SW Chapter has no new news to report at this time as our November meeting was cancelled.

Our next Chapter meeting is January 10th at 5:30 PM, Christina's Bar and Grill, Durango, when the March workshop will be a topic of discussion.

Rob Trudeau, P.L.S.
President, SWC/PLSC

WCLS

This report for Western Colorado Land Surveyors is being prepared prior to our January 11, 2012 meeting but will be published in Side Shots after the results of our election. We will be counting ballots and installing our new officers

at our January 11, 2012 meeting. The nominees are:

President, Richard Bullen; Vice President, John Kobylarz, Mark Wagner; Secretary/Treasurer, Brian Bowker; Board of Directors: Les Doehling, Mike Drissel, Patrick Green, Peter Krick, Scott Thompson, Rick Mason and Tom Sylvester (automatic as immediate Past President).

We have an excellent slate of officers. I am sure that our chapter and the PLSC will give them the same tremendous support I received during my term.

It has been a true privilege serving as President of Western Colorado Land Surveyors for the last two years. At every opportunity, members of our Chapter stepped in to take charge or help in all of our undertakings. In particular, I want to thank Richard Bullen, our

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Vice President, for his support and for organizing the summer picnic; Brian Bowker, our Secretary/Treasurer, for all of the duties he has to perform and for getting all of our mailings out, reports in, and generally keeping me on track; Dennis Shelhorn for organizing and handling all of the details of our Spring Seminar; Peter Krick for his organizing and preparation of the food for all of our regular meetings, for his presentation concerning surveying in Florida and the review of the new ALTA Standards, and congratulations on his recent appointment to the Board of the PLSC; Les Doehling and John Kobylarz for heading the scholarship committee; Scott Thompson for his presentation about the nuances of surveying in the Town of Fruita; Patrick Green for keeping us informed of the happenings in the Mesa County Surveyors office and for serving on the

Board of the PLSC; and Mike Drissel for his participation and continued interest in the State Board of Licensure for Architects, Professional Engineers, and Professional Land Surveyors.

Special thanks goes to Rick Mason, who started us on the path of Trig Star participation, served on the legislative committee for PLSC, and was my constant go-to guy for help on everything from meetings, nominations, advice, to overall moral support. Rick recently retired and is moving to Maine to be with his family. He will be sorely missed.

I know that I am leaving out folks who have made excellent contributions during these last two years. I apologize for my short memory. Now that I am over 65, I can use it as an excuse, but there is really no excuse if I have left out

worthy participants.

We had members traveling all the way from Basalt and Ouray and points in between to attend our meetings. Everyone participated with good discussions during our presentations (and like surveyors, there were often differences of opinions expressed).

Overall, I could not have asked for a greater group of professionals with which to be associated. I know you will all continue your enthusiasm for the profession and our area and support our new officers as they take over.

Thomas W. Sylvester,
P.E. & P.L.S.
President, WCLS

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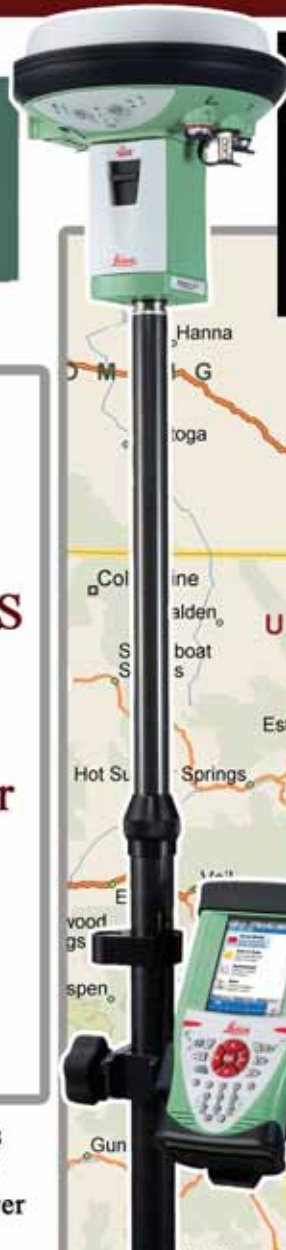
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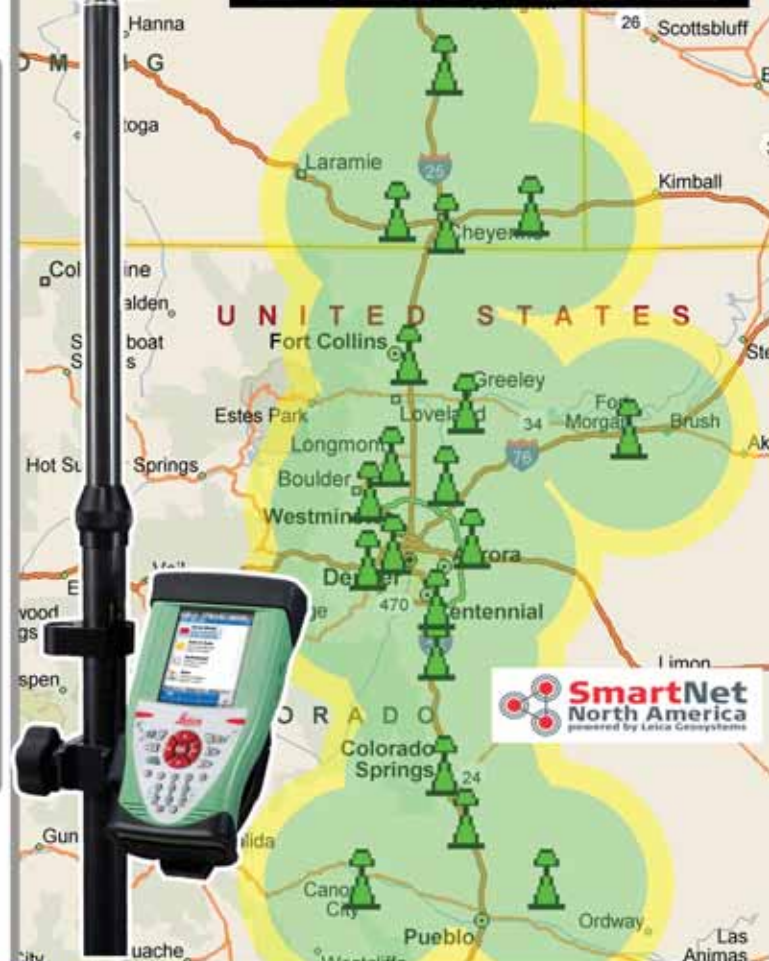
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