

May 2013

SIDE SHOTS

Professional Land Surveyors of Colorado

Volume 44, Issue 2



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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.

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We have concluded our 2013 Surveyor's Summit and by the feedback that I received from attendees, the Summit was viewed as a success. Appreciation was expressed for the range of topics and quality of speakers. This event would not have been possible without the hard work and dedication of the PLSC education committee and those that assisted at the Summit. There are too many to name individually without missing someone therefore I would like to pass along my appreciation to those that worked so hard to make the event a success. We have committed to the Arvada Center for next year's Surveyor's Summit and I look forward to another great lineup and increased attendance.



I want to recap a few of the PLSC's accomplishments over the past two years. PLSC finances were managed to the budget, communication with chapter representatives has improved, but still needs work, the Central Chapter completed a membership drive, and the PLSC website has been revamped. I know there will be many suggestions for the new website and ask that suggestions be forwarded to Becky Roland for compilation and prioritization as the budget to make changes will be respected.

The PLSC is still working with our lobbyist to make sure that SB13-161 passes with current amendments to disallow "fishing" in Colorado. Our legislative committee has been successful to date working with PLSC's lobbyist to amend SB13-161, working with the engineers and architects representatives to present a united front, testifying at Senate committee hearings and continually monitoring newly introduced bills to assure the interest of professional surveyors in Colorado are protected.

The PLSC elections were completed prior to the Surveyor's Summit and I would like to welcome newly elected board members Kayce Wohlman representing the Northern Chapter, Leif Joy representing the Northwest Quarter Chapter, Patrick Green representing the Western Chapter, and Alan Blair representing the Central Chapter to the board of directors for a four year term. Todd Beers (CCPS), Peter Krick (WCLS), Bill Buntrock (CCPS), and Parker Newby (SWC/PLSC) round out the board with a remaining two year term. We will be naming an ex-officio member to the PLSC Board from the CSRN Chapter to complete representation from all chapters. Mike Bouchard was re-elected as Vice President and Terry Maw was re-elected as Secretary/Treasurer both serving a two year term. I again thank our membership for their trust in re-electing me as president for a two year term. I am excited that we have such diversity on our board and look forward to working alongside these individuals that have dedicated their time and efforts for the PLSC. The Board understands that member feedback is essential to our success and for improvements to be made, so be sure to contact chapter representatives to have your voice heard.

Looking ahead, the PLSC is in the process of finalizing our 2013 budget and objectives. Unfortunately these items will not be complete in time for inclusion in this addition of *Side Shots*.

Sincerely,
Roger D. Nelson, PLS, CFedS



The cover of this issue includes just a few of the many photos taken during the 3rd Annual Surveyors Summit at the Arvada Center that took place from February 28th to March 2nd. It was very gratifying to see so many people in the surveying/GIS community from all parts of the state gathered together for classroom instruction, vendor displays, the annual meeting, forums, networking, good food and camaraderie. If you were not able to attend this year, or were on the fence about going and held off, see this month's article, "What you Missed at the RMSS Annual Conference" article by Todd Beers. If you are a surveyor in Colorado, you really must participate next year.

I had the honor of facilitating the Chapter Summit meeting on the first evening of the conference. It was nice to see some familiar faces, and even nicer to meet some new people among the 27 attendees who expressed and exchanged their views on a variety of topics with the governance of the PLSC. The minutes of this meeting appear in this issue. The minutes from two Board of Directors meetings, and an NSPS update, can be found at www.plsc.net, as space did not permit inclusion in this issue.

This month there is an excellent article by Mark Johannes about the risks and benefits of going out on your own as a sole practitioner. A significant percentage of the professional land surveyors in Colorado have done

this, and I would like to hear your stories as well. Todd Beers has written an article on the subject of PLSC communications with the membership, Mike Bouchard has provided an update on the Western Federation of Professional Surveyors meeting in Salt Lake City, and Earl Henderson has written about his Rule of the Month, on plats to be deposited.

Brian Dennis has provided an article about the all new PLSC.net website. I think it will inspire you to go to your computer, tablet or smartphone and take a look. Warren Andrews has provided another thoughtful Control Points, The Cubit. He is up to number 20; I expect him to do at least 20 more in the future! Randy Bloom of the BLM has provided a cadastral survey letter and a notice about plats and field note locations. Pam Fromhertz included a notice about calibration baselines. Alan Blair has given us a Legislative Committee update. And last but not never least, the chapters have provided all of us with their latest news.

There is a membership application form included in this issue; current members should be receiving email notices, which make renewals quick and easy to do. You can also sign up on the website, or mail in the paper form. The important thing is to just get it done. If you are a practicing surveyor in Colorado, you need the benefits the PLSC provides, and the PLSC needs to hear from you!

JB Guyton,
Editor, *Side Shots*

This Month on PLSC.net

Please check the newly designed website for the following additional articles:

The National Society of Professional Surveyors Update, March 31, 2013

Minutes of the December 4, 2012 Board of Directors Meeting

Minutes of the March 21, 2013 Board of Directors Meeting

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What You Missed At The RMSS Annual Conference!

By Todd Beers, PLS

The 3rd Annual Rocky Mountain Survey Summit was held February 28-March 2, 2013 at the Arvada Center in Arvada, Colorado. The conference was successful with over 220 attendees participating in the event. The conference included attendees that traveled from the four corners of Colorado, plus Wyoming, New Mexico, Oklahoma, Oregon and Alaska to name just a few locations. In case you were unable to attend the event, we wanted to let you know some of the items you missed!

General Items of interest at the conference included the following:

- Over 15 exhibitors from Colorado and nationwide had an opportunity to showcase their services and supplies. The exhibitors presented a brief introduction regarding their services and several held individual raffles with some very interesting prizes!
- Competitive events including distance measurement estimate, pacing estimating, wiggle in and chain throwing contests. Plaques were presented to the winner of each contest.
- Our annual plat contest included 4 categories this year-Boundary, General, Topographic and GIS mapping.
- For the first there were opportunities for corporate sponsorships for the conference (9 gold and 1 bronze sponsor). The sponsors were able to display signs and provided handouts at their respective speaker track rooms. Each sponsor was recognized at announcements and during the morning track introductions. We look forward to continuing this opportunity at next year's conference.
- An exhibitor social on Thursday evening provided an opportunity for additional networking, socializing with attendees and discussions with exhibitors.
- The PLSC 2013-2014 Board of Directors were announced and introduced to the conference attendees at the Annual PLSC meeting held during the Thursday lunch hour.
- PLSC awards were presented during the Friday lunch hour.
- Raffles were held during each lunch hour with many prizes donated by the exhibitors, chapters and the BLM.
- A questionnaire for the attendees was distributed for completion and good input provided by the responses.
- Long time members (20 years and longer) of the PLSC were recognized during the Friday lunch hour and presented with special lapel pins. We are grateful for these long time members and hope to increase our membership in the future.
- The annual Chapter Summit was conducted on Thursday evening with 27 people in attendance representing the majority of the chapters of the PLSC. The Chapter Summit is an opportunity for the members of the 7 chapters of the PLSC to provide input into how the state organization is doing, identify items of interest for the organization to pursue and provide direction to the state organization. A very productive meeting was held and provided action items for the PLSC to take on for the 2013 year. Much appreciation to all in attendance for their participation.
- There were 4 tracks for attendees to choose from including Professional, Business\General, Technical and Technician. A brief review of the speakers and their respective topics of discussion is provided below:

The professional track included nationally and locally renowned speakers:
 - Mr. Jeff Lucas, PLS, nationally recognized author provided two days of spirited and enthusiastic presentations on "The Pincushion Effect" and "What Went Wrong-A Study in Surveyor Error and Omissions."
 - Mr. Larry Phipps, PLS, nationally known speaker provided four presentations; "Ethics for the Land Surveyor," "Traverse Analysis and Adjustment," "Implementing Value Pricing" and "ALTA\ACSM New Standards and How to Apply Them."
 - A new event this year was a "Survey Symposium" with the topic of Improvement Location Certificates. This was a panel event with input provided by the audience. This event was free to interested parties and included panel members from the Colorado Board of Registration, real estate professionals, title companies, PLSC Legislative Committee and practitioners of ILC's. A lot of great discussion occurred and follow up action items were identified. This event will continue in future conferences as one avenue to potentially provide direction for the PLSC legislative committee for the coming years. Don't miss this opportunity to have your voice heard!
 - On the local front two presentations pertaining to surveying in the City and County of Denver were provided by Mr. Warren Ruby, PLS on "A Brief History of Surveying in the City of Denver, The First 200 Years" followed by Mr. Randy Fortuin, PLS on "Surveying the City and County of Denver." Both sessions provided insight into the unique surveys performed in the city.

- BLM representative, Mr. Mark Smirnov, PLS discussed “Rocky Mountain Riparian Boundaries” which affects licensees practicing along the Rocky Mountains.

The technical track included a variety of subjects from GPS to GIS:

- Compass Tools provided a session on “Trimble’s MGIS High Accuracy Options, 30 cm, 10 cm and 1 cm.”
- Mr. Bryan Baker spoke on “GNSS Constellation update, New RTX Technology and FCC Narrowbanding Issues.”

Western Federation of Professional Surveyors Board of Directors Meeting, Salt Lake City, Utah, March 1, 2013

By Micheal Bouchard, PLS

The Western Federation of Professional Surveyors (WFPS) is an organization representing the surveyors of the western part of the United States. As part of its existence, it is dedicated to the education and dissemination of surveying knowledge to its members. The meeting in Utah was a collaboration of the Utah Council of Land Surveyors (UCLS) and the WFPS to produce the Annual UCLS Conference. WFPS members were the featured speakers and guests for one of the three days of the conference. So it was only fitting that a large portion of the WPSP BOD meeting focused on education. The Board has started putting together a list of speakers/subjects so that WFSP and surveying organizations will have a resource to use when developing programs, conferences or other informational venues. This is an ongoing process and I will keep you updated as the list develops and grows. Another educational program that the WFPS is championing is TwiST (Teaching with Spatial Technology). This is a program that teaches teachers about the Surveying professions and the disciplines that have become part of the profession. WFPS and the National Council of Examiners for Engineering and Surveying (NCEES) are working together to develop and sponsor a workshop for teachers to learn about our profession and then go back to the classroom and stimulate students towards our profession. I know what you’re thinking - Our profession could use some stimulation!

This is a partial report due to the fact that I have not received the official minutes of the last meeting, so I will defer giving the state by state report until later, and I will quit here. I will continue my report in the next issue of *Side Shots*.

- Mr. Harold Schuch provided “An Introduction to Geodesy” discussion.
- Ms. Pam Fromhertz, NGS State Geodetic Advisor for Colorado discussed “NGS Latest Developments.”
- Mr. Marcus Reedy, PLS discussed “Introduction of Mapping on Multiple Recording Platforms (3D Terrestrial LiDAR, Mobile LiDAR and GeoAutomation®).” These newer technologies can revolutionize the way we perform some types of surveys in the future.
- Ms. Alison Walls and Brian Hailey presented “Automate your drafting using feature codes — From field to finish using Trimble Business Center and exporting to Civil 3D.”
- Mr. Ken Martinez on “Civil 3D, Tips & Tricks for the Surveyor” providing insight into the software program from the surveyors point of view.

The Business\General track included subjects from title companies to Colorado State Boundaries:

- Mr. Geoffrey Anderson on “Real Estate Litigation: Where the Surveyor Fits In.”
- Our own Colorado attorney and long time friend of the PLSC, Mr. Dave Pehr, Esq. provided two sessions on “Where to Find the Sources of Colorado Survey Law” and “Case Studies that have Shaped Boundary Location in Colorado.” Both sessions were well attended and provided a lot of valuable history and background information pertaining to Colorado surveyors.
- Mr. Dean Rybal spoke on “Working With the Title Insurance Industry.”
- Mr. Earl Henderson, PLS, provided two sessions on “The Kinks & the Corners, A Brief History of the original surveys of the South and West lines of Colorado and the Four Corners Monument” and a roundtable discussion on “Colorado Surveying.”
- Mr. Bob Green, PLS presented “Getting the most out of Office Software and Unique Kinematic and Post Processed Solutions.”

The Technician Track included representatives from service providers and local speakers including:

- Our long time friend and instructor Mr. Gaby Neunzert on “Instrument Errors and Adjustments.”
- Mr. Ken Wright, et al provided a very interesting series of presentations on Paleontology and surveying in ancient times. Several projects were highlighted in this illuminating discussion.

Save the date for the 4th Annual RMSS Conference next year February 27-March 1, 2014 at the Arvada Center. We hope to see you there!!

Sole Practitioners in Land Surveying

By Mark Johannes, PLS



Mark
Johannes, PLS

Recently I joined the growing cadre of professional land surveyors who have gone out on their own as a sole practitioner. Since my first surveying job in 1984 I have worked at engineering or surveying firms, both large and small, so there was definitely risk involved in trading in the security of a steady paycheck and a regular schedule for the opportunity to build something of my own.

The reasons people have for starting their own businesses are legion. For some fellows I know, it was out of necessity, due to being laid off from their place of work. For others, it was simply a desire to be on their own and to have more control over their schedule, workload and type of work they wanted to do.

I felt that I too wanted to be on my own, to do the type of work I wanted to, to be home more, to take time off when I wanted and to be more involved with the PLSC and my Chapter.

One important objective I had with starting a business was to not go into debt to do it. That isn't to say one shouldn't borrow money to start their business. It just was something I did not want to do.

Before I started out I only had a truck. For the first few projects I borrowed equipment from a friend. Then I was presented with an opportunity to acquire equipment of my own when a gold mine wanted to get rid of all their old equipment gathering dust on a shelf. I was able to pick up some equipment in good condition for a great price. Another friend gave me a couple of tripods and a prism pole. These things enabled me to get started in the business and I have been purchasing new equipment as I have the means. I really couldn't have gotten this far without the help of some of my surveyor friends.

The advent of robotic and GPS equipment allows one person to perform most land surveying tasks individually. As for myself, I perform most of my work with a total station, enlisting the aid of my son, who is in college and lives at home. When the necessity arises, I borrow or rent a robotic instrument or a GPS system to complete a particular project.

Some of the challenges I have found are ones experienced by any business owner, be it large or small: bringing in work, performing the work, getting paid for the work, affording insurance, affording supplies and other items and not letting the business consume all of my time and energy. I have my wife to thank for making sure I am not working from dawn to dusk and making sure that I keep my life somewhat balanced.

To date, most of the work I have received came to me predominately through the relationships I have developed over the years. Certain individuals had heard that I had gone out on my own and contacted me. Other work has come from surveyors who had referred the work to me. Another opportunity for work has come through teaming up with other firms. Several times I have worked with another sole practitioner on projects that neither of us could do alone. I have also had opportunities to contract with larger firms that were experiencing a sudden, temporary increase in their workload but didn't want to add to their staff. Other times I have contracted with companies that had work in one of the other states in which I am licensed and who needed me to review and stamp their work.

Of course, having a robust website in this day and age is not only a good idea, it is critical. As time goes on, I am finding that more of the requests I receive come via my website. In addition to the obligatory Search Engine Optimization (SEO) and at the suggestion of another friend who started his business about 5 years before I did, I am trying to establish a more visible presence on the web by getting my name onto as many of the business search sites that are out there such as Yelp, Superpages, Manta, etc. Other avenues I have pursued are signing up with the Better Business Bureau and Angie's List. It is too soon to tell if any of these approaches are successful, but if I don't try it, I won't know.

One of the challenges involved with obtaining work involves competing against larger firms that have more extensive resources dedicated to obtaining contracts. One example is responding to an RFP that other, larger firms are preparing proposals for. These larger firms usually have people dedicated to just preparing proposals. On the other hand, I have to find time between field work, drafting, billing, obtaining supplies, phone calls, emails, running to the bank and being a husband and father to try to prepare at least a decent proposal.

Another challenge that arises from competing with the larger firms is how to present myself as being capable to perform the work when the other firms have much more in the way of resources and personnel. First, I have to accept the fact that there will always be projects I simply cannot or should not bid on. I do not want to commit to do something I know I cannot do in the time frame required. Second, for those projects I do feel capable of handling, I have to craft my proposal in such a way as to convince the prospective client that all of my time, energy and resources will be dedicated to completing the project on time, on budget and as accurately and thoroughly as possible. That is where teaming up with others can be beneficial.

One of my goals I set when I established my business was to gain a reputation for being responsive to

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clients. For the most part, I have been fairly responsive but there have been times when it seems that everyone wanted their work done right now (sound familiar?). When those times do happen I reach out to my friend who is also a sole proprietor and ask him to do some drafting or help me in the field. We both benefit in that I continue to meet my deadlines and I help his cash flow. And the arrangement is reciprocal. I help him when he needs it.

Speaking of cash flow, while having money coming in regularly is very important to any size business I certainly can say that it is probably the biggest cause of stress for me. Having a comfortable accounts receivable may look good in Quickbooks, but it generally fails to impress the mortgage or utility company and cannot put gas in my truck. I simply cannot imagine what it feels like to have to make payroll every two weeks, in addition to keeping the lights on at the office. Having a line of credit at the bank helps even out the cash flow, but it is only a temporary fix and only goes so far.

Having regular clients who pay promptly has helped to keep some money flowing into the bank on a fairly steady basis, but such clients are generally the exception, as most business owners can attest. So managing Accounts Receivable is another task I perform.

Having ventured thus far into the world of self-employment I can say that I am glad I made the decision. Sure, I have given up the security of a steady pay-

check and relatively secure future but I still have no regrets. I like the fact that it is I and I alone who is responsible for delivering a service that is done to my satisfaction.

Just as the small business owner is the backbone of our economy, the independent surveyor is vital to the land surveying profession. I think it would be great if the PLSC could provide some tools to help them succeed.

Some possible ways the PLSC could help are as follows:

I feel that the sole proprietor could be a valuable resource for large firms needing to address a sudden increase in workload without adding staff. Perhaps the PLSC could sponsor some sort of clearinghouse of information about sole proprietors available on a short term basis.

Another way the PLSC could assist the sole proprietor is by sponsoring more business-oriented workshops and classes, providing them with some basic business training.

I very much value my membership in the PLSC. It has been very beneficial to me professionally and personally. I would encourage all licensed surveyors to become members and reap the benefits.



Friday • June 7, 2013

8 a.m.-5 p.m.

Saturday • June 8, 2013

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How Can the PLSC Best Communicate with its Membership?

By Todd Beers, PLS

The PLSC Board of Directors has been reviewing the current methods of communication that we have in distributing and/or soliciting input from our membership. Over the last several years membership has declined and fewer members have been involved in the formation of policy and direction of the PLSC including legislation. The PLSC would like to inquire with the membership regarding the best methods for communicating in a timely manner in order to have input from the constituency and not have the decisions of the Colorado surveying community rest only on a small number of members.

Several communication methods are identified below that we would like to have input from membership regarding their use and ease of providing input into the PLSC leadership:

PLSC Website (www.plsc.net): There is now a new website for the PLSC membership!! The website went active in March 2013 and while we are still working out all of the kinks, it should prove itself to be an improved and friendlier version. As part of the website we have a page for communicating any feedback to the organization ("contact us" tab). Further refinements will depend on such feedback from the PLSC membership. The website allows an immediate input from membership with emails being read daily by PLSC staff (at plsc@plsc.net).

Questionnaires: At the Rocky Mountain Surveyors Summit held in March 2013, a questionnaire was developed and distributed in the binder provided to all attendees. The questionnaire was created to solicit specific responses from each recipient regarding issues with the PLSC, and the PLSC's coordination with chapters, etc. While the responses from the attendees were not overwhelming in number (18 of the 200 attendees) they have provided good input to the society. We plan on continuing with this effort at the annual conference and perhaps repeat the questionnaire and create additional questionnaires to be distributed through email and/or surveymonkey.com or a similar polling device. Would this type of solicitation for member input be used by the membership?

SurveyMonkey.com or similar interface: This type of personnel survey can be implemented for use by the membership as well. We can create a very broad level of questions to respond to or make it very specific in composition. The questionnaires developed through the year could also be distributed electronically in this manner. Advantages of this type of communication are that it would be timelier with a posted duration of time to respond to the solicitation. Results of the survey could

be provided to the PLSC BOD prior to its respective board meetings. Would membership be more available to respond to a five minute survey monkey solicitation?

Side Shots: Our quarterly magazine has always provided a means of communication of BOD meeting minutes, financial status, chapter news, etc. The concern using this as a main source of communication with the membership is the time delay from reporting of the activity or news and the delivery of the respective issue. There will always be some delay in the reporting of the information. The magazine will continue to be a valuable form of communication with the membership. Are there any suggestions for modifications or additions to the content of the magazine? I continue to hear only positive input from readers of the magazine.

Annual conference: The PLSC has an annual conference typically held in the first quarter of each year. This venue provides an opportunity for membership to meet with PLSC BOD membership (the majority of BOD members are typically present at the conference) and to network with other PLSC chapter leaders at the conference. Each conference will include an annual meeting of the membership where items requiring the vote of the membership are performed. In addition, a Chapter Summit is held the first evening of the conference and it is specifically meant for the direct communication of any issues, items of concern, input on direction, etc. related to the PLSC as a whole. If you are unable to attend the conference and/or Chapter Summit you are encouraged to contact any PLSC BOD member or chapter representative who will be attending in order to have your input provided in the discussions. Any other suggestions for handling membership input at the annual conference would be greatly appreciated!

Local chapter meetings: The PLSC has seven chapters geographically located throughout Colorado. Each chapter has its own BOD and meets regularly throughout the year. A portion of the PLSC dues are passed through to the chapters in order for them to have operating funds for their use related to chapter needs (BOD meetings, general meetings, chapter projects, publications, etc.). This venue provides a great opportunity for chapter membership to get their input heard. Each chapter currently has representation on the PLSC board as well as each chapter president or designated representative is invited to participate in the PLSC BOD meetings in order to assure input from each chapter is heard at the PLSC BOD level. If for some reason you are not getting reminders of chapter meetings please contact your chapter leadership to get on the meeting distribution list. At each chapter meeting there should be an agenda item for news from the



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PLSC that will have been summarized by the chapter representative who attended the PLSC BOD meeting or may have had other communication with PLSC BOD members. This is by far the best opportunity to provide your input and discussions with your chapter membership—you are encouraged to take advantage of this opportunity.

PLSC BOD teleconference meetings: The PLSC BOD meetings are generally every other month throughout the year, and the BOD communicates on issues requiring more immediate action by email. The meetings are currently teleconferenced (the board is looking into alternatives to teleconferencing such as GoToMeeting, etc.). There are PLSC BOD members who are chapter members who should be actively participating with the chapters' own BOD meetings in order to pass along input from the chapters at the meetings. All chapters have a PLSC BOD member or an ex-officio position on the PLSC Board (typically the president or designated person). In this manner, the PLSC leadership has contact with all of the chapters who are representing all of the state membership at each meeting. If you believe that your chapter is not being heard at the state level, please contact your local chapter leadership. In addition, some of the PLSC BOD members are attending chapter meetings throughout the state. The PLSC BOD asks that the PLSC BOD members be placed on the distribution list for chapter meetings as scheduled chap-

ter meetings and locations have been known to be moved on occasion. We can plan to attend if we are made aware of an upcoming meeting!

These are some of the avenues available for communicating with the membership. What will work for you, the member? Are there any other suggested avenues of communication that have not been identified above that we can potentially utilize? The PLSC seeks membership involvement as a whole—please participate in some way to get the most value out of your membership. The PLSC exists to serve the Colorado surveying community—please join in the opportunity to improve our profession through education, outreach and communication.

Please contact Todd Beers (PLSC Director) at tbeers@deainc.com, 720-225-4646 or Becky Roland (PLSC Executive Director) at broland@plsc.net, 303-551-3266 with suggestion to further the PLSC's communication with our membership.

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Rule of the Month

By Earl Henderson, PLS

6.5.5.1 Plats to be Deposited. All plats required to be prepared pursuant to Section 38-51-107, C.R.S., shall be deposited with the county in which said survey was performed and a copy of the plat shall be delivered to the client. *In addition to the requirements set forth in Section 38-51-107, C.R.S., a plat must also be prepared and deposited for any monument found substantially at variance (according to Rule 6.5.6), with dimensions shown on deposited or filed plats or if the monument results in conflicting boundary evidence which has not previously been shown on a plat deposited or filed in accordance with Section 38-51-107(1), C.R.S.* Said plat shall comply with all applicable provisions of Sections 38-51-107 and 38-50-101 C.R.S. (*emphasis added*)

I'm going to go out on a limb here and guess that most of the Professional Land Surveyors (PLS's) in Colorado know that they have to prepare and deposit plats in their county as described in the first sentence of this rule. Like other situations I've written about however, it concerns me that many PLS's may not read beyond the first sentence of the rule. There's a whole lot of meat after that first sentence.

I'm going to go out on another limb and guess that most PLS's are aware of the "20 year rule", which is actually Statute 38-51-107(2), C.R.S. "No plat shall be required to be prepared or deposited if the monuments accepted or set are within a platted subdivision that was filed in the clerk and recorder's office within the previous twenty years." This statute replaced an older version a few years ago that we all remember and that stated "No Plat shall be required to be prepared if the monuments accepted or set are within a platted subdivision which was filed after July 1, 1975." Personally, I think it's a good idea to have the rolling 20 year rule rather than the fixed date. Otherwise, 50 years from now there might not be any plats being deposited at all. That would of course be wrong, but that's a topic for another discussion.

Like I said, most of us know the 20 year rule and rely on it too, but the 20 year rule is an option of course. You can deposit a plat anytime you choose even though 38-51-107(2) allows you to opt out in some, but not all, cases. But remember that extra meat in Rule 6.5.5.1 I

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mentioned before? Those are some additional requirements that remove that option from the 20 year rule. In other words, just because you're working in a platted subdivision that was filed within the past 20 years doesn't automatically mean that you don't have to file a plat. Rule 6.5.5.1 gives us two situations in which we are required to deposit a plat, even if we're working in a very recent subdivision and states so directly regardless of the "20 year rule", Statute 38-51-107(2).

The first situation is *"for any monument found substantially at variance (according to Rule 6.5.6)."* Rule 6.5.6 allows us to use our "professional expertise and judgment" in determining if a monument is substantially at variance but also requires us to "meet or exceed the minimum standard of care". The first aspect of this situation that bears some scrutiny is that we fall under this requirement if ANY MONUMENT FOUND is substantially at variance, not just the monuments defining the lot we are surveying. Assuming we're surveying just one lot in one block in a recently platted subdivision, we are likely, and I would go further to say hopefully, going to locate a substantial number of monuments outside of our lot in that block and perhaps even some beyond the limitations of the block. So if any one of those is substantially at variance, we must deposit a plat.

The second aspect of this situation that bears some scrutiny is the definition of "substantially at variance", which is not specifically defined by Statute or Board Rule. We can argue and discuss error ellipses, precision, significant digits, and other mathematical defini-

tions of variance, but to me there's one easy way to see it without question. If you locate a monument that you choose not to accept for any reason, then that monument would likely be considered "substantially at variance". There may be additional situations in which a monument can be termed "substantially at variance", but if you choose not to accept it, then in my opinion it must be "substantially at variance", otherwise you'd have obviously accepted it. Conversely, if you do accept a monument in its current location, then obviously in your "professional expertise and judgment" it is not "substantially at variance". Some other PLS might argue differently, but by accepting it you are obviously arguing in favor of that monument being accurate.

The second situation in which we are required to deposit a plat even in a recent subdivision is underlined for emphasis above and deals with *"conflicting boundary evidence."* Again, imagine yourself surveying that lot. If you choose not to accept a monument, that would, IMHO, mean that the unaccepted monument is conflicting boundary evidence. If you find a pincushion at any location, then you obviously have conflicting boundary evidence because they can't all be correct. If you set a pincushion in any location...well, there have been books written about that. Let's leave that one alone. There's already steam venting from my ears just thinking about it. But don't forget that conflicting boundary evidence can be many more things than monumentation found or set. Fences and other improvements can represent conflicting boundary evidence for example. A statement by the property owner or adjoiner (Parol Evidence) may represent conflicting boundary evidence. One of the reasons we're considered professionals is because we make these kinds of judgments. So if you set a monument in a recent subdivision thinking that you don't have to deposit a plat, before you walk away, look around. If the fence lines don't agree with your location, or if there's other evidence that doesn't comply with your location, you must deposit a plat unless, as is stated, that evidence is already shown on a previously deposited plat.

The list of possibilities that represent conflicting boundary evidence is, of course, infinite. But the overall idea remains the same. Don't blindly assume that just because you're working in a subdivision that was platted less than 20 years ago, that you automatically don't have to deposit a plat. I would feel awfully embarrassed to find myself in court, because of a monument with my LS# on it, for which I did not deposit a plat, but which either caused, or contributed to a lawsuit between neighbors, perhaps because it didn't agree with their fences, and which showed up on two other surveyors' plats working for those two parties in the law suit. How are you going to explain that to the judge?

Calibration Baselines

NGS in conjunction with CDOT and the PLSC is planning various CBL activities in June 2013. Currently we are looking at holding a "Users" workshop along with re-measuring the Durango CBL the week of June 10th and a "Users" Workshop along with re-measuring the Highline CBL the week of June 17th. A team was formed (Shawn Clarke, Roger Kelley, Scott Kimminau, Kevin Kucharczyk, David Kuxhausen, Chris Raml, JJ Rihanek, Jack Sparks, Dave Stewart) and they are exploring a site for another CBL in the Denver Metro area. If that all comes together we will look to install the new CBL June 20-21.

Please contact Pam Fromhertz, Pamela.fromhertz@noaa.gov, 303-202-4580, or the PLSC website for more details, plsc.net.

Control Points – Number 20

By Warren Andrews, PLS

The Cubit

How long is a cubit? This was the primary standard of length in ancient Egypt and became the basis for most of the length, area, volume, and weight measurements in the Western world. In its long usage, based on astronomical observations and measurements on the earth's surface, it was similar to the present day metre (intended as one ten millionth of the arc of longitude through Paris from the Pole to the Equator, measured from Dunkirk to Barcelona. See Control Points No. 10). In the book, *Secrets of the Great Pyramid*, by Peter Tompkins, there is a very lengthy appendix entitled, "Notes on the Relation of Ancient Measures to the Great Pyramid," by Livio Catullo Stecchini, a specialist in ancient measurements. Stecchini goes into exhaustive detail about the deviation of the unit of length from the measurements in Egypt. The north-south longitudinal axis of Egypt is at 31°14'E from Greenwich (They probably called it zero longitude in the original Egyptian system because Greenwich, England didn't exist for thousands of years yet!).

The north-south length of Egypt was measured at 7°30' to the north. This ratio is then 4/5 to 1/5 for Upper and Lower Egypt. The total number for 7°30' was 1,800,000 geographic cubits. There were 400 cubits to a stadium and 600 stadia to a degree. Millennia later, Isaac Newton had to delay publication of his *Mathematica Principia* to figure out the size of the earth for his theory of gravitation because he didn't know the length of the ancient cubit.

A complicating factor was when Lower Egypt and Upper Egypt were united in the First Dynasty, the priests recomputed the length of the geographic cubit and added 1/7 to make it the royal cubit (an even 1,500,000 cubits from latitude 24°06'N to 31°06'N). The number 7 then became important in their newer geodetic system.

A difficulty that the ancient mathematicians had was in calculating irrational numbers that didn't come out

even, such as π (Pi) where they used the approximation 22/7. They also used the 80 to 81 ratio in several places.

One critical relation that even the French developers of the Metric System had trouble with, and was the reason Thomas Jefferson (even though he wanted a decimal system of weights and measures) shot it down except for the currency, was time versus distance. The Egyptians had solved that problem that 1,000 geographic cubits equaled one second of time of rotation of the earth.

With all of Stecchini's comparisons and computations of ancient units and where they come from, he finally comes up with the value of 450 millimetres for the regular cubit and 525 millimetres for the royal cubit, but then shows where the three variations of the royal cubit come from — there are 524.1483 millimetres, 525.0000 millimetres, and 526.3231 millimetres respectively. The first is the scientific unit of Egypt and was used in the construction of the Great Pyramid. The second is 7/6 of the regular cubit of 450 millimetres, commonly used throughout Egypt and the standard for the Second Pyramid. The third royal cubit was related to volume and weight measurements and was the standard for the coffers of the Great and Second Pyramids. (I have personally seen the coffer in the Great Pyramid and it is an immense, hollowed-out granite block).

With all of Stecchini's theoretical calculations of the lengths of the 4 different new cubits, his prediction of the circumference of the base of the Great Pyramid is 921,452.72 millimetres. This compares with a very accurate survey by the professional surveyor, Cole, working from the ancient builders' scribe marks of 921,453 millimetres (that's over 3,023 feet!). You tell me the ancient Egyptian surveyors weren't accurate?



An inscribed Egyptian cubit bar. From the Liverpool World Museum; photo, Dave Lightbody.



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CO-956
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March 19, 2013

Mr. John B. Guyton, Editor
Side Shots
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 October 31, 2012, through February 13, 2013. These surveys were filed in the Public Room, Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado, 80215, and are available at <http://www.glorerecords.blm.gov>.

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

<u>Township</u>	<u>Range</u>	<u>Meridian</u>	<u>Group No.</u>	<u>Type</u>	<u>Approved</u>	<u>Plats</u>
T. 41 N.	R. 11 E.	NMPM	1410	Plat & Notes	10/31/12	1
T. 35 N.	R. 12 W.	NMPM	1392	Plat & Notes	11/13/12	2
T. 40 N.	R. 11 E.	NMPM	1410	Plat & Notes	11/14/12	2
Luis Maria Baca Grant No. 4			1410	Plat & Notes	11/28/12	2
Luis Maria Baca Grant No. 4			1410	Plat & Notes	11/28/12	4
T. 26 S.	R. 73 W.	Sixth	1410	Plat & Notes	12/11/12	1
T. 7 S.	R. 70 W.	Sixth	1597	Plat & Notes	12/31/12	1
T. 9 S.	R. 70 W.	Sixth	1597	Plat & Notes	12/31/12	3
T. 11 S.	R. 69 W.	Sixth	1597	Plat & Notes	01/10/13	1
T. 5 S.	R. 80 W.	Sixth	1595	Plat & Notes	01/31/13	1
T. 5 S.	R. 81 W.	Sixth	1595	Plat & Notes	01/31/13	1
T. 4 S.	R. 82 W.	Sixth	1595	Plat & Notes	01/31/13	2
T. 11 S.	R. 70 W.	Sixth	1400	Plat & Notes	02/13/13	2

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



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Mr. John B. Guyton, Editor
Side Shots
3825 Iris Avenue
Boulder, Colorado 80301

Dear Mr. Guyton,
APR 11 2013

This letter is to inform you of the location of official plats and field notes from the surveys of the General Land Office and Bureau of Land Management. You may circulate this letter among the membership of the Professional Land Surveyors of Colorado. All rectangular and mineral survey plats and field notes can be found in the BLM Public Room located at 2850 Youngfield Street, Lakewood, Colorado, 80215. We are in the process of scanning all survey plats and field notes and making them available online. With some exceptions, images of all mineral and rectangular plats can be found at <http://www.gloreCORDS.blm.gov>. New surveys (plats and field notes) can be found at this address within 90 days of official filing in the BLM Public Room. Mineral and rectangular field notes have, with few exceptions, been scanned. However, only a fraction of them are available online. Rectangular field notes from 1999 to the present can be generally found online. Mineral survey notes are not yet available online. We expect that in several years, funding permitting, all records will be available online. The table below summarizes the status and location of these records.

Location of Official Plats and Field Notes for BLM/GLO Surveys in Colorado		
Record	Location	Comments
Plats- Rectangular	Public Room	Complete Record in Public Room
	Online	Complete Record online, pending verification. New surveys available within 90 days of official filing in the BLM Public Room
Field Notes-Rectangular	Public Room	Complete Record in Public Room
	Online	Incomplete: 1999 to present date.
Plats- Mineral	Public Room	Complete Record in Public Room
	Online	Incomplete. 99 percent available online. Known missing mineral survey plats are as listed: Mineral Survey No's 6654-6989, 7396-7507 and 8076-8281.
Field Notes-Mineral	Public Room	Complete Record in Public Room
	Public Room	Not yet available online.

The primary contacts for official plats and field notes is Merica Block, Lead Contact Representative, Colorado State Office, 2850 Youngfield Street, Lakewood Colorado, 80215, Phone: 303-239-3600, e-mail: mblock@blm.gov. Also available to assist in records research is Randy Bloom, Cadastral Survey Branch Chief, Phone: 303-239-3856, e-mail: rbloom@blm.gov.

Sincerely yours,

Randy Bloom
Chief Cadastral Surveyor for Colorado

The New PLSC Website Has Arrived!

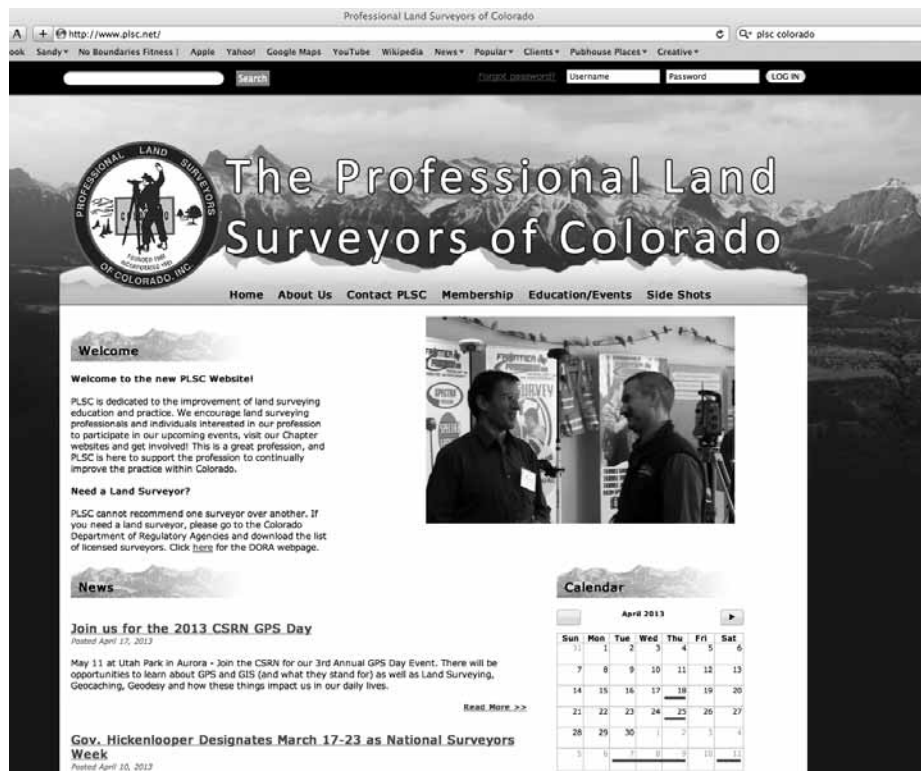
By Brian Dennis, PLS

Last year the PLSC was challenged by the membership to enhance the PLSC website. Our members wanted the website to have a “modern” feel and functionality and to present content that would add value to the membership and draw others to the site as well. The PLSC accepted the challenge and charged Brian Dennis (website committee chair) and Becky Roland (Executive Director) with this effort.

The website is still under construction due to an earlier than anticipated release date but already the site is demonstrating significant changes.

Current changes to the website include the addition of the new calendar and contact information for the PLSC Board of Directors and Legislative Committee members. We have also changed the format to lessen the drill down effect and make the information easier and faster to get to. We understand your time is valuable and you should be able to get in, see what you need and be able to move on to other items in a timely manner. We have been focused on this goal as we add content and features.

The “**Calendar**” is our solution to an old dilemma. The questions have always been the same which are: what date is a chapter meeting on? When is the PLSC conference? What date is a specific event either PLSC or chapter or other organization? What are the dates of the manufacturer’s events such as Trimble Dimensions or Lieca’s Conferences? There was no place to go to locally to get these answers easily without numerous calls or emails trying to find a person that was going to that event or meeting too. The calendar is designed to resolve this by having these dates in a central location for all to see at a glance. We placed this on the home page for quick, easy access so you can plan which meetings or events you want to attend or participate in, in advance. We are in the process of making the calendar editable by a representative of each chapter.



This will allow each chapter to go into the calendar and put in their meeting and event dates, including if it is a board meeting or general membership meeting. Until we have the access to the chapters fully implemented, please send your information to plsc@plsc.net and Becky or I will input them into the calendar for you. Please provide the name of the activity, date, place and chapter.

There are many ideas we are currently working on to add value to the content that is coming soon and includes:

Chapter News and PLSC News to provide each chapter a place to state any recent news they want to share with the membership. This will not replace the Chapter News section in *Side Shots* but will instead be an supplement and support to *Side Shots*, which is published quarterly. A good use of this section might be for chapter boards to solicit for open positions during elections or for unexpected vacancies. In addition, chapters can post exciting or interesting news about a

member of their chapter or event. For those chapters that have active websites, we can place a short “teaser” sentence or more with a link to your website for the full news feature. The PLSC News will be a vehicle to promote the annual conference and post the current activities of the legislative committee. This would include bills that are introduced by other organizations that may impact us indirectly and language and items that the committee is working on to directly impact Colorado surveyors. Perhaps a news feed to DORA is a possibility that we can add in the future.

Market News to provide the members with information on Colorado news regarding housing or land development, commercial construction and transactions and oil and gas or other interesting markets that may provide relevant information to help your business for marketing targets and planning. This would be done by publishing short paragraphs of each news feed and a link to the site with the full

article. Now you can quickly browse the news and pick the articles that are interesting to you instead of having to read through them all in full length to find what is important to you. This is being currently discussed to be a "Member's Only" section of the website for PLSC paying members, providing you information that is consolidated in one place that is not open to the public.

Industry News is for Land Surveying, GPS and GIS in general at a local and national level. Perhaps feeds to NGS, WSPS, NSPS, BLM, FEMA, Trimble, Leica, Topcon and other industry related businesses or organizations to keep you up to date with what is going on in the world that may impact you, including national legislative news. Remember the "Light Squared" event regarding potential GPS impacts? This would be the section to have that kind of news and information posted.

Education Opportunities listed, including the PLSC scholarship listings and college survey programs nationally with a listing of on-

line availabilities. I believe if we are going to have these great opportunities for financial assistance at the college level, we need to make the opportunities available for all to see and contact information for the interested party to know how to move forward and take advantage of these programs.

Member Spotlight is an exciting new addition to the website. This is intended for anyone who believes a particular member of the PLSC needs to be seen and recognized for a recent or lifelong accomplishment. It is time the PLSC had a place where the members can acknowledge one another outside of chapter meetings, and we have created that place. If you have a member of your chapter that you want to have recognized, then send us a photo and a paragraph or two describing why you want this person "spotlighted" or a bio of the person to highlight their commitment to the profession.

PLSC Sponsors are now being shown and listed on the website. At the bottom of the website homepage, you can now see who the

PLSC sponsors are. This is a great opportunity to have your company promoted and seen as a sponsor of the profession and the organization. We have always been thankful to our sponsors for their dedicated support and we are excited to have their logo and company names as part of the website to acknowledge that support.

There are many other ideas that are being discussed and others that we are determining how to execute, to continue to add value to the website. We are investigating how to make many of the news feeds, discussed above, automatic to keep the site current, always changing and fresh.

The PLSC membership asked for changes to the website and I believe we are delivering those changes. We still need input from the membership for content ideas and formatting ideas. We need to know your likes and dislikes and how we can make it better. This is your website and your opinions are valued. Surveyors are never short on opinions, so don't come up short now!

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Update from the Legislative Committee

Alan D Blair, Chair, PLSC Legislative Committee

Senate Bill 13-161 continues to move through the legislature. This is the bill that would reauthorize the Department of Regulatory Agencies (DORA) to continue to regulate the professions of Engineering, Land Surveying and Architecture when the current laws face sunset. "In public policy, a sunset provision or clause is a measure within a statute, regulation or other law that provides that the law shall cease to have effect after a specific date, unless further legislative action is taken to extend the law. Most laws do not have sunset clauses and therefore remain in force indefinitely." (Wikipedia).

The process began last spring when DORA assigned an analyst to review the current regulations and laws. Your PLSC aligned with professional organizations of engineers and architects to find common concerns about the impending sunset of the laws regulating our professions. Roger Nelson and others met with these groups regularly. We also met with the DORA analyst and DORA administrators to provide the PLSC positions going forward with the legislation. The PLSC Board of Directors (BOD) decided not to present any

major changes to the legislation and to protect the laws and regulations as they currently exist from unfavorable changes.

The comment period ended in June while the analyst wrote his report to the legislature. The report was completed in October. There were 14 recommendations put forth by the DORA analyst in the report. Of those recommendations, the PLSC BOD (and the professional organizations representing engineers) decided to officially oppose the one which would have allowed land surveyors and engineers licensed in other states to offer to practice in Colorado. This provision was removed from the bill after testimony from President Nelson to the subcommittee on Business, Labor, & Technology. It has passed the full senate without the provision for "fishing" in Colorado.

The bill was introduced in the house and assigned to Business, Labor, Economic, & Workforce Development. The bill was debated and President Nelson once again testified as to the support from the PLSC mem-

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bership. It was passed out of committee without amendments and will go to the full house for a vote and is expected to pass without change.

Summarized History for Bill Number SB13-161

(The date the bill passed to the committee of the whole reflects the date the bill passed out of committee.)

02/04/2013: Introduced In Senate - Assigned to Business, Labor, & Technology.

03/06/2013: Senate Committee on Business, Labor, & Technology Refer Amended to Senate Committee of the Whole.

03/12/2013: Senate Second Reading Passed with Amendments

03/13/2013: Senate Third Reading Passed.

03/14/2013: Introduced In House - Assigned to Business, Labor, Economic, & Workforce Development.

03/28/2013: House Committee on Business, Labor, Economic, & Workforce Development Refer Unamended to Appropriations.

This should wrap up the legislative committee's work on Sunset with maintaining the status quo. The full text of the bill can be found on the Colorado General Assembly web site: www.leg.state.co.us. The original recommendations from DORA can be found on their web site. Or, Email me at aland207@gmail.com and I can send it to you.

The next mission for the legislative committee will be assigned by the PLSC BOD. There was a spirited discussion of issues and some good recommendations from the panel and audience revolving around Improvement Location Certificates at the PLSC 4th Annual Rocky Mountain Surveyors Summit. The committee has been charged with proposing changes to the legislation in the next session to address some of the problems that were identified. The committee has begun reaching out to users of ILCs to find solutions that will work for everyone.



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PLSC Chapter Summit

February 28, 2013, 7:00 P.M. • Arvada Center for the Arts and Humanities

In attendance/signed in:

Roger Nelson (President, PLSC); Becky Roland (Executive Director); John B. Guyton (Moderator); Chris Power (minutes); Steve Parker, SC, VP; Joseph Alessi, SC President; Daniel Hanten, SC Treasurer; Peter T. Krick, WCLS, PLSC Director; Patrick Green, WCLS, PLSC Director; Jonathan Kobylarz, WCLS, VP; Richard Bullen, WCLS President; David Kuxhausen, CCPS, VP; Chris Raml, CCPS President; Eric Carson, CSRN, VP; James Rihaneck, CCPS, Director; John Wilhelm, CCPS, Director; Shawn Clarke, CCPS, Director; Robert Hintz, NC; Laine Landau, NC, VP; Todd Beers, PLSC Director;

At side tables/not signed in:

Lynn Patten, Terrametra Resources; Pete ?; Marcus Reedy; Bryan Dennis; Paul Bacus; Warren Ward; Jerry Brenan, from Alaska

Agenda Topics:

1. For chapter representatives, is there anything still wrong with the PLSC parent organization and if so, how do we fix it?
2. Legislative advocacy, i.e. Sunset Review – are chapters supportive of this?
3. Education – status of remaining academic surveying programs.
4. How can communications be improved? (President Roger Nelson visited each chapter in 2012);
5. Consolidation of scholarships (new form has been completed);
6. Consolidation of website resources (PLSC.net is being redesigned);
7. Financial issues, complaints;
8. Are by-laws current or are changes needed?
9. Chapter membership drive/contest to increase PLSC membership (CCPS initiated membership drive).

Minutes:

Roger (Nelson): Introduction and welcome remarks.

JB (Guyton): Purpose of Chapter Summit is to remain in synch with all of the chapters; some progress was made last year. The Chapter Summit evolved because there used to be location and demographic differences across the state. It is intended to help provide one unified voice to advance our interests.

Roger: As a recap, the filming of the refresher course discussed last year is being done, will be on a variety of digital media made available to all of the remote chapters. Scholarship application form generic template has been updated, available to the chapters for modification. To improve communications, all chapters are now included on email notices. I was able to personally visit all of the chapters during my first two years as President. Website updating is in progress, should go live this week.

Robert Hintz: Was input solicited for website design?

Roger: A committee looked at it, provided input. This approach saved time, to allow faster progress. Will collect ideas to build upon it.

Becky (Roland): Website allows for much flexibility. Chapters can have their own page, customized for their needs.

Roger: Back to JB for the agenda.

JB: I would like to introduce Warren Ward to talk about NSPS.

Warren Ward: I like to attend each year to provide an NSPS report; I was blocked by an avalanche on Berthod Pass, but was in time for the ILC Symposium. The National Society of Professional Surveyors used to be affiliated with the American Congress of Surveying & Mapping (ACSM) years ago, now it is only the NSPS. The group is not affiliated with GPS people, only surveyors. Thirteen years ago they tried to get state members involved in the NSPS; if you are a member of a state society in Maine or Alaska, you are also automatically a member of the NSPS. If a state joins, it gets a seat on the Board of Directors. I am on two committees, attends board meetings on behalf of the PLSC.

By attending without state membership, we have some influence but no vote. We also do not pay dues. 18 states are "all in," Kentucky being the latest. 30 are expected next year. It costs \$40 more per member to join NSPS. Membership is now in the thousands and growing. What do they do? Every member benefits from their work. The NSPS was influential in lobbying to prevent LightSquared from interfering with equipment signals. They are involved in TrigStar, a program that is in 24 Colorado schools. The schools need a national sponsor. A formal testing system, the Certified Survey Technician program, is administered by the NSPS. They could develop a formal mentoring program also. I did an informational display for NSPS at the Four Corners Monument; they provided \$40,000 in immediate, needed funding. It is up to the members of a state society like PLSC to participate in an all-in program. A majority vote of the members present at the annual meeting would make it happen.

JB: In order to get this information to the full membership, your remarks will be published in *Side Shots*.

Roger: We might also fund Warren to travel to the chapters also.

JB: Now on to the first agenda topic. Is anything being done by the mother ship sticking in your craws?

Laine (Landau): I agree that we have made progress, but decisions still seem to be made by a small group. Todd and Roger have both come up to the Northern Chapter, which made a big difference. That is moving in the right direction, but more is needed. Demographics – a survey of constituents would be useful. Attending a conference like this is too expensive for sole practitioners, not just the cost but the time requirements. Website needs some control at the local chapter level.

Bryan Dennis: The website will be integrated with links, not yet complete. I can foresee expanding the website as membership grows, can consolidate web resources. The CSRN and the Northern Chapter sites are the only functioning ones right now.

Rob Hintz: There will be a place at the table if they want it.

Eric Carson: I would like to see a consolidation of resources on the web page, which would bring costs down, make it available to all chapters. Video conferencing would also bring people together more easily, their time is scarce. Video is inexpensive, compared to the teleconferencing service being used.

Chris Raml: Regarding CCPS, we are linked to the site now, but they have put cost up front, \$40/year, and are controlling the site now.

Bryan Dennis: There are two ways to consolidate: 1) PLSC hosts content, and 2) each has a page. Have 15 pages now, 30 is the limit. CSRN is 15 web pages already, so there are limitations to expanding.

JB: Getting information to webmaster in time for better turnout to meetings is an issue. Let's move on.

David Kuxhausen: I've had complaints about the Summit conference registration process. Some have paid the membership fee already and received no discount for adding a membership. Starting the website redesign just prior to this conference was a poor decision.

Roger: The lesson on that point was learned.

Laine: If meeting minutes were more detailed, it would help in better feeling what the issues are, and understanding decisions being made. Only the basics of the topics and the votes are shown.

Roger: We are trying to adhere to Robert's Rules of Order. People can phone in and listen, and participate if you like. They can't vote though, unless they are ex-officio chapter directors. That person should be the one responsible for getting meeting details back to the chapter members.

Eric Carson: That's why videoconferencing is so valuable, you can see faces! A call in line for a chapter conference call is currently very expensive.

Patrick Green: As chapters, we do need board people to bring information back to us, a system that works well. A summary in *Side Shots* is good, but a report from a person is better, more detailed.

Bryan Clark: As to Eric's idea, this was talked about last year, costs were sent out, and the idea died.

Roger: I didn't advance it or move it forward. I need someone on the board to be a champion of that cause, to move it along and get it done.

Becky: I have used GoToMeeting for videoconferencing. I can set it up, it works well. There is some feedback on cell phones, so a monitor is needed.

Todd Beers: I will take that on.

Joe Alessi: There has been confusion about chapter cooperation for the Summit conference, now that there are no longer local workshops, especially over finances.

Daniel Horton: Deposits of funds have been sent directly to the bank, cannot tell the details of what it is for. What is the formula for dividing revenues?

Becky: We are doing checks now, no longer doing bank transfers.

Roger: The operating budget for chapters is now rolled up into the PLSC budget, we are close to

breakeven after those distributions. There is no exact formula. I have been approached about doing a percentage distribution. The Summit is a huge source of PLSC operating revenue that's needed to operate. Basing distributions on the number of attendees from each chapter has been considered. Unsure of what the ideal system should be.

Todd Beers: An agreement on distribution was made. There have been two distributions.

Eric Carson: CSRN put in budget last year, didn't spend, never received distribution from the Summit. Net zero. Combined workshops, the effort was put in, but no distribution back.

Todd Beers: It was an oversight. If budget submitted, distribution should have occurred. It is driven by whether the PLSC budget had money to distribute. We need to communicate.

Roger: Should have received half of distribution. Will follow up.

JB: Let's keep some perspective; combining the chapter workshops was a big success. Let's move onto #2, Sunset Review.

Roger: A draft bill came out. At first reading the chair heard no testimony from the public. Draft bill then came out, included out of state "fishing" by surveyors not licensed in Colorado. We worked with our lobbyist to have that removed. March 6th is the next hearing. We will testify in support of the amended bill. Alan Blair is getting up to speak as Chair of the Legislative Committee. Each chapter needs a representative on it. I believe the Southwest chapter was lacking someone.

Laine: Fishing issue made us aware that we are a 3-industry group under regulation, and we are the smallest part. Surveyors are easier to dismiss, our voices less heard.

JB: Onto #3, Education. Lynn Patten is here to speak. He has a masters in mathematics, and is a very effective teacher. Lynn is currently one of the best sources of local education.

Lynn Patten: The Metro State program is dying. Westwood College graduated the last three students in October. Westwood might restart as a night program. I teach math at Front Range Community College but want to support the efforts of the PLSC, to fill the void. I began Terrametra Resources, dedicated to earth measurement from the ground up. The basics are taught. There are 3 math review courses, 5 math courses from the Westwood curriculum, modified. There are 3 special topics in development. I would like to link with the PLSC website. I need help from the Education Committee to get accreditation for professional development.

JB: Please understand that Terranova is online learning only.

Lynn Patten: It is a document format, 80% quizzes and 20% final exam, for a certificate of completion. Quizzes are emailed back. Need accreditation so the state would recognize it as a refresher course.

Roger: In the few states I am licensed in, if CEU's are required the board must review and approve content. Colorado has no CEU requirement.

JB: Lynn has a great syllabus that was previously used in his 2-year surveying program.

Eric Carson: Courses are great, but many surveyors aren't interested until they get more into the profes-

sion. Too many consider surveying a trade.

JB: #4 on agenda already covered.

Laine: Kayce says we should have a huge “everybody” meeting, not just one for conference registrants at the annual meeting.

Roger: We can open up the annual meeting for free over lunch.

JB: #5, Scholarships.

Laine: It would have been helpful to see the form.

Roger: The form is a template only, for each chapter to customize. We floated a suggestion from Randy Bloom at the BLM to make scholarships available for the CFedS training. There will be one awarded this year, details to follow, open only to PLSC members. Not yet sure of the selection process to be used.

David Kuxhausen: CCPS is also considering this, as we have had no response to the scholarship application. We want to open up education to anyone.

JB: Agenda #6 and #7 are also done.

Roger: It’s too late to change the distribution formula now, but don’t wait until next year to suggest changes, we must start early.

Todd Beers: We are starting in March for 2014.

JB: #8, By-Laws

Roger: There was a vote to change CSRN By-laws at the meeting yesterday. Can add two more non-PLSC members to your board, and they will not pay dues.

JB: Everyone in this room needs to be an emissary and an ambassador for the PLSC. Membership can be unaffordable, and we are sympathetic. What the PLSC board and chapters are doing is admirable. Increasing the number of dues paying members is necessary.

Laine: What tools can we get? Membership lists, lists of all licensed surveyors?

Roger: Free lists are available from DORA, these were already sent to every chapter president as an Excel spreadsheet.

JB: We are close to our time to end...

Roger: Closing remarks. There is a systematic problem with organizations using volunteers. Ideas are easy, turning those into action is hard work. I get silence when I ask for someone to stand up and volunteer. The same 10% of the members are active every time. Who is the next 10% going to be? Need to say, “I will own that. I will make sure it gets done.”

Steve Parker: Wants to pitch to others, where is the value? Is this printed?

JB: Yes – see the Todd Beers article in *Side Shots*.

Roger: Mention legislative initiative, such as fishing, etc.

Laine: Must also create value. Our last meeting (Northern Chapter) was 30 people. Give presentations on topics that people want to see.

JB: Needs to inspire people, to get bitten by the bug.

Roger: We will be honoring our long-standing members tomorrow with lapel pins. Part of the “Closing the Horizon” theme of this Summit.

JB: This concludes the Chapter Summit. To all here in attendance, and anyone reading minutes of this meeting in *Side Shots*, please provide me with suggestions for new agenda items for a 2014 Chapter Summit, should there be one. Thank you all for your participation and input.

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CCPS

Thanks to all who made the 3rd Annual Surveyors Summit a success. There were many local and nationally known speakers who rounded out three days of seminar tracts loaded with great topics. When not in a presentation you were shown the latest in technology and services offered by the PLSC's sustaining members and/or vendors. The CCPS iPad raffle was a success and we hope the winner is enjoying his new toy. It was great to see all of you there!

Our special project for 2013 is to construct a new baseline in the Denver Metro area for all members of the land surveying community to utilize. Finding a suitable location is turning out to be a daunting task and we could use your help. Please contact Pam Fromhertz, our Colorado NGS advisor, or Shawn Clarke if you think you have a location that would work.

The CCPS hopes to continue to have just as interesting a list of topics and speakers at our general membership meetings this year as we have had this past year. I want to give thanks to everyone who was willing to donate their time and give presentations as one of our guest speakers or sponsoring vendors. These meetings are put on for the benefit of our members and we want to have speakers and topics that everyone will enjoy. If you have a speaker in mind please let me know. These are great venues to discuss anything regarding the land surveying profession. If you haven't attended one yet we hope to see you on Thursday, April 25th at the Double Tree in Aurora. Bring a friend.

The 2013 CCPS board of directors consists of: Officers; Christopher Raml, President; David Kuxhausen, Vice President; Mark Wilson, Secretary; Aaron Willis, Treasurer. The directors are Shawn Clarke, George Robinson, John Wilhelm, Terry Pickering, Kevin Kucharczyk, Ken Baker, and Tony Perazzo. Thanks to all of you who serve on our board.

Please visit us at www.centralcosurveypro.com for contact infor-

mation, meeting details, and general CCPS news.

Christopher Raml, PLS
CCPS President

CSRN

The Colorado Spatial Reference Network is planning an active year with several events planned. The CSRN wants to reach out to people interested in the GeoSpatial world and how it is used in their profession.

The big news for the CSRN is the changes to the By-Laws. Some minor wording was changed but one change will affect the direction and future of this organization. The CSRN By-Law changes were voted on at the PLSC General Meeting held on March 1, 2013 and the voting members were unanimous in their acceptance of them. The major change concerns the Board of Directors. Of the five directors, two directors do not have to be members of the PLSC. This opens the board to a more diversified group to guide the CSRN in the future.

The CSRN schedule for this year so far is:

April 18th, Thursday, CSRN Board and General Membership Meeting to be held at Woody's Tavern, 7095 E Evans Ave, 80224, 5:30 to 7:00 P.M. I want to hear from CSRN members and discuss what interests them.

Tentative: May 11th, Saturday, CSRN GPS Day, to be held at Utah Park, Aurora, CO, from 10:00 A.M. to 2:00 P.M. Members are invited to come to meet, share knowledge, talk about the direction land surveying is headed in the future and, enjoy a lemonade & hot dog.

June 20th, Thursday, CSRN Board and General Membership meeting, location and time to be determined and open to suggestions.

August – September, a Saturday, location and date to be determined, CSRN & Northern PLSC Chapter Picnic and general membership meeting.

September 19th, CSRN Board and General Membership meeting,

location and time to be determined and open to suggestions. One of the things to be discussed is nominations for CSRN Board Members in 2014.

November 21, Thursday, CSRN Board and General Membership Meeting, location and time to be determined and open to suggestions. General Elections for the CSRN are October 15th to November 5th. Welcome new board members and plan transition to 2014.

Events / meeting locations and times will be emailed out to CSRN membership and posted on the CSRN website, www.csrn.us.

Jan Sterling,
CSRN President

NC-PLSC

The Northern Chapter is now selling 2013 booklets titled 'The Subdivision'. For those of you who haven't received yours, please send a check to the Northern Chapter, PO Box 674, Loveland, CO 80539-0674 for \$20 and we'll get a copy mailed to you. Northern Chapter members should already have their copies by now. Paul Bacus has been spearheading this endeavor and the surveying community benefits from his laborious efforts. Join me in thanking Paul for his time and passion for our industry.

The PLSC Summit Conference was certainly a success this year. Of the presentations that I personally saw, I took away quite a bit and have already put that knowledge to good use; money well spent. The Northern Chapter had two of its finest members recognized with the 'Distinguished Service' award: Paul Bacus and Walter 'Wally' Muscott. The Northern Chapter is proud to have them among us and we're delighted to see them recognized formally.

We're starting a new project for 2013-2014. There seems to be a VRS 'hole' in the northeast corner of our state. Our Chapter is interested in working towards getting a CORS station set up in this area. Right now we're in the discussion phase and trying to find people to aid us in this endeavor and hopeful-

ly find other entities to help sponsor this effort. This isn't something that is just going to happen overnight so any support you would like to provide, we'll take it.

In addition to this large project, Northern Chapter is going to hit Trig-Star hard next year. A handful of surveyors in our area intend on adopting a school and helping those kids as a mentor and guide. We're hopeful that sowing these seeds will help the youth in our area learn more about our industry and show them the importance of mathematics. If you're interested in being involved or sponsoring a school in our surrounding area, please let us know.

The last official meeting before our Chapter's summer hiatus will be May 1st. Join us for dinner, a presentation and conversation as we wrap up this year. Stay tuned for a summer picnic. Our Chapter intends on having a baseline check where we surveyors can check our equipment to ensure the accuracy and precision of our equipment. This will be in collaboration with the CSRN and hopefully the Central chapter. Details will come via email and through the new website.

Kayce D. Wohlman, PLS
Northern Chapter President

NW 1/4 CLS

Hello from Northwest Colorado... The snow is melting, the birds are singing, the phones are ringing and it is time to get back to work. Oh wait, it's still snowing! Springtime in the Rockies.

The main bit of news up here centers on the continuing efforts of a couple of our chapter members to get a CORS operating in Steamboat Springs. Walter Magill and Tom Effinger have been in the forefront of those efforts. Together with Pamela Fromhertz with NOAA they have found a site for the equipment and have recorded some data that NGS has found acceptable. We are keeping our fingers crossed that the installation will meet NGS standards once it is finalized. For now the station will not be Glonass

capable, and will be broadcasting corrections by radio from the site. Future improvements may include a radio repeater on top of one of our local mountains and upgrades to the equipment to enable Glonass capability.

We hope to have our first chapter meeting of the year soon. In the meantime we are all busy getting our ducks in a row for the summer survey season.

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

SCPLS

The March Board of Directors meeting was held in Pueblo. Special guests included Todd Beers and Brian Dennis. The meeting was very productive as numerous record keeping and schedules were developed. The board reviewed our Constitution and By Laws. Todd Beers assisted in the development of our budget. Numerous financial issues were discussed including the scholarship program. The IRS status of the Professional Land Surveyors organization will determine other options for the use of the scholarship funds. Discussions included scholarship funds for the C Fed designation.

Steve Parker has developed a Web page for the Southern Chapter which will be linked to the PLSC Web Page, www.scplsc.net, currently under construction. The web site will include list of members, calendar of events and meetings.

Mark Johannes and Steve Parker were appointed as representatives from the Southern Chapter for the PLSC meetings and activities planning for the annual summit. Steve Parker has been appointed as a liaison between the SCPLSC and PLSC. Brian Dennis updated the board on legislative issues. Dan Hanten was appointed the committee chairman for the Golf Tournament held in August. Nathan Lira was appointed chairman for the Christmas Party.

Todd Beers provided a list of current Southern Chapter Members along with a list of all Surveyor

Interns and PLS Surveyors located in the Southern Chapter area. The board will contact these Land Surveyors as a membership drive.

Future Membership Meetings will include: Conceal Carry for Land Surveyors, and The UAV demonstration at Ft Carson.

Joseph Alessi, PLS
President, Southern Chapter

SWC-PLSC

The SWPLSC held our most recent chapter meeting on Tuesday, March 13 in Durango. We discussed the recent installation of a CORS station at the La Plata County Airport and the possible addition of RTK/radio capabilities to the station.

We are still discussing the refresher course and how to get information to the west slope. One of our members drove (through a snow storm, from Cortez) to the class only to find it had been cancelled due to the storm.

The annual Four Corners Area Seminar is scheduled for June 7 & 8, 2013 at Fort Lewis College in Durango. We have a good lineup this year including Dennis Moulard, Milton Denny, Pamela Fromhertz and Alison Walls. Registration will be available soon at www.plsc.net.

Our next meeting is scheduled for May 14. We will be hosting Warren Ward on behalf of the NSPS as our guest speaker. Look for time and location in the upcoming email.

Joshua J. Casselberry, PLS
President, SWC-PLSC

WCLS

You are invited to attend the Western Colorado Land Surveyors Spring Seminar on Friday, May 17, 2013. Mr. David Pehr, Esq. will be our guest speaker. We had the pleasure of having Mr. Pehr as one of our guest speakers last year and were so impressed that we decided to have him back again this year.

Morning session: Civil Liability and Surveying;

C H A P T E R N E W S

Afternoon session: Case Studies That Have Shaped Boundary Locations in Colorado.

Place: Grand Vista Hotel, 2790 Crossroads Blvd @ Horizon Drive, Grand Junction, CO. 81506

Cost: \$150.00 early registration, buffet lunch included; \$175.00 after May 1st.

Contact: Peter Krick, (970) 256-4003 or Richard Bullen, (970) 245-4921.

Time: 7:30 – 8:00 Registration
8:00 – 12:00 Morning session
12:00 – 1:00 Lunch
1:00 – 5:00 Afternoon session
WCLS will have its Chapter meeting following the seminar. War-

ren Ward will give a presentation on NSPS. Don't miss out on the great training and the fantastic Grand Valley.

Richard Bullen, PLS
President, WCLS

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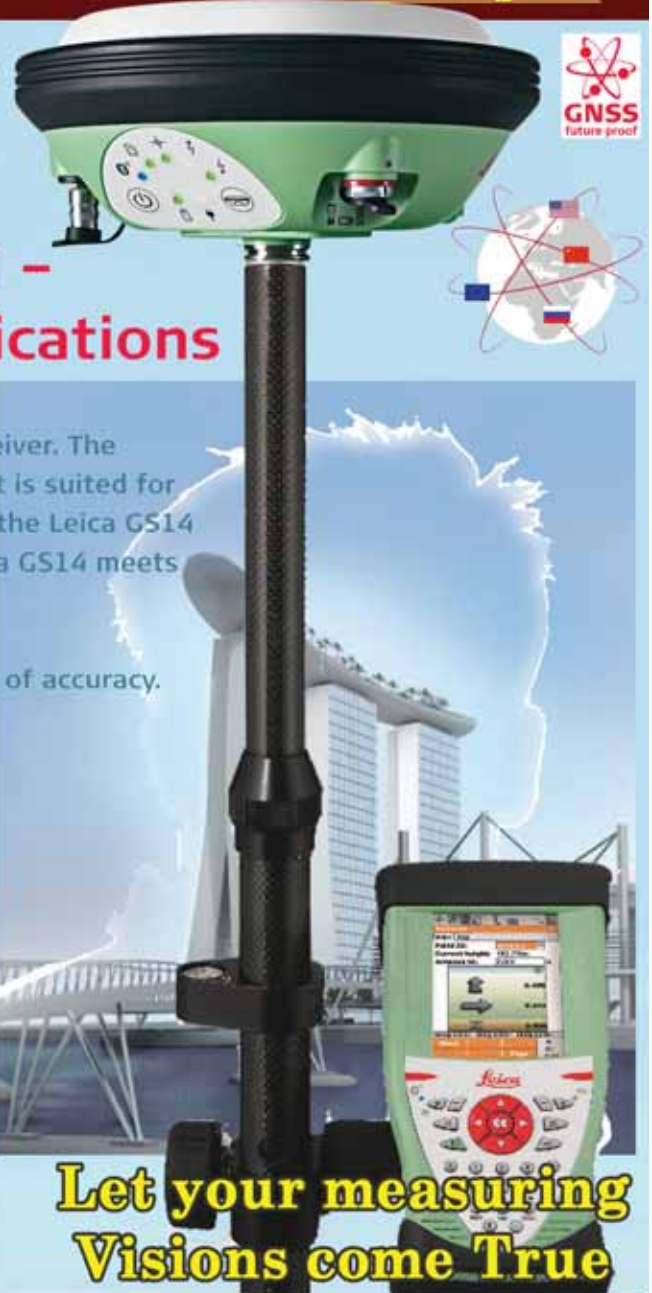
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