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SIDE SHOTS

Professional Land Surveyors of Colorado

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SIDE SHOTS

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*Side Shots is the official publication of the Professional Land Surveyors of Colorado, Inc.
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Dear Fellow Members of PLSC:

Our Colorado weather has surprised us with both heavy doses of snowfall and beautiful spring weather, causing some confusion to the trees, shrubs and lawns, not to mention decisions about sending our field staff out to the project site! Hopefully we will have a continuation of the mild weather heading into the spring and summer for all of our outdoor activities.

We have just completed the Rocky Mountain Surveyor's Summit conference in late February and it was a big success. Attendance was the highest it has been for a number of years. The new format of Wednesday-Friday appears to have been well received by the attendees and limiting the tracks to three each day provided a more even ratio of attendees per speaker. Our initial keynote address on the first morning, presented by Dennis Moulard, touched on the theme of the conference: The Land Surveying Profession, Past, Present and Future. The incoming NSPS President, Mr. Tony Cavell, provided an inspiring speech during the lunch break on the first day of the conference, followed by an update of the NSPS organization's efforts. Hopefully those in attendance gained a better understanding of the advantages the PLSC members have in being involved with this national organization. Voting PLSC members also received the latest reference book by Paul Bacus entitled, "The Field Companion." The Chapter Summit meeting was held on Thursday evening and provided good input for the direction of the PLSC and enabled an opportunity to interface with chapter representatives from across the state. We are planning another chapter summit meeting on the western front in late summer or early fall. We thank the sponsors and exhibitors without whom the conference would not have been as big a success. There was a wide variety of topics presented by volunteer and fee speakers that sparked the interest of all the attendees. All in all, a great job of coordination and execution of the conference by the planning committee and volunteers chaired by Kayce Keane! Planning for next year's conference is already underway. As always, any input regarding topics or speakers is welcome.

There is some recent movement in the development of a surveying degree program in the State of Colorado-please look for progress reports in future *Side Shots* editions and on the PLSC website.

In the continuing effort to reach out to the next generation of potential surveyors, the PLSC sent Brian Dennis to the NSPS Youth Program in February. Brian was invited by the NSPS to present and provide input on the success of the outreach programs the PLSC has achieved over that past few years. Please see the article by Brian in this edition for more details.

continued on page 5

DEDICATED TO THE IMPROVEMENT OF LAND SURVEYING EDUCATION AND PRACTICE.

FROM THE EDITOR



Congratulations to everyone involved in participating in, working for, and sponsoring the 2016 Surveyor's Summit conference at the Arvada Center in early March. As Todd mentioned, attendance and interest was high. I was asked again to moderate the annual Chapter Summit meeting, which

was well attended. Nothing was held back; people spoke their minds and voiced their concerns to the officers who were there, which is exactly the point. A complete transcript of the meeting appears in this issue. My hope is that if you couldn't attend, you can still get a very good idea of what transpired. In addition to the collage of pictures on the cover, there are still more inside; you can watch for your own picture, or just see how many others you recognize.

This issue features a report from Brian Dennis on his trip to Minneapolis to represent the PLSC at the NSPS Youth Program meeting. This group was initiated by the NSPS to lead a national effort to recruit and retain young surveyors, and I'm certain that Brian had a lot of good experiences and ideas to share with the other state attendees.

Earl Henderson's Rule of the Month is on pincushions in the field as well as virtual or "paper pincushions." Warren Andrew's Control Points is about human and animal boundaries and the god Terminus. Gaby Neunzert has an excellent piece about the alternative idea of creating "centers of surveying education" to solve the problem of educating future surveyors. We have the cadastral letter from the BLM, the PLSC Board Minutes from January, a copy of Governor John Hickenlooper's Proclamation for Surveyor's Week (which began on March 21st) and a letter about Surveyor's Week signed by President Obama.

I have presented a summary of the many events that took place on my trip to Arlington, Virginia for the Spring NSPS Directors Meeting, followed by the Treasurer's Report, and the Chapter News.

Please consider sharing your knowledge and/or stories, and join our other authors who contribute to *Side Shots*. Your colleagues, as well as surveyors in other states, are interested in what you have to say.

JB Guyton, Editor, *Side Shots*

From the President from page 4

The GPS Committee has coordinated GPS Day 2016. This year the event will be held at the Compass Tools office in Centennial on May 21, 2016 from 10:00 am to 2:00 pm and lunch will be provided. Please get the word out and especially invite younger folks to the event. It is always a fun event and continues to evolve every year with new activities. Many thanks to Brian Dennis and Eric Carson for their leadership in the development of this important outreach program.

GIS in the Rockies is just around the corner, from

September 21-22, 2016 at the Cable Center in Denver. Please plan ahead for this informational event that includes a PLSC track.

Please enjoy the various articles included in this edition of *Side Shots*, and I hope all members have a great spring and summer.

Sincerely,
Todd Beers, PLS



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NSPS Youth Program

By Brian Dennis, PLS

The PLSC sponsored my attendance, as the Colorado representative, to the FIG/NSPS Youth Program held in conjunction with the Minnesota Survey Society Conference in Minneapolis in February of this year.

This youth program was initiated by NSPS, and is currently lead by Amanda Askren, to develop a national effort geared towards recruitment and retainment of young surveyors. The conceptual composition of the group is intended to be 1-2 representatives from each state. NSPS has a 38 state membership as of February; however not all states had representation at this meeting. The states with representatives were: Colorado, New Mexico, Texas, Florida, Minnesota, Wisconsin, North Dakota, Washington, West Virginia, Oregon, California, Michigan & Alaska. There may have been others that were not present at the introductions as folks filtered in and out of the conference throughout the multi day event.

The NSPS youth group is focused on young surveyors, defined as 35 years of age or younger, to embrace the changing landscape of surveying and its new generation of candidates. This was the second meeting for this group, the first meeting being last year in San Diego, which had approximately 15 attendees. This year's meeting had approximately 60 attendees. That's significant growth for only one year.

In addition to the NSPS youth program meeting was the FIG meeting, which is the international youth program. Surveyors were represented from numerous countries and continents including Jamaica, South America, Australia, Canada and Europe. Each gave a presentation specific to the surveying practices to their area. They also provided an overview and projection of potential survey candidates in their area and the educational institutions available to them. This provided a good overall feel for the survey community internationally. Companies such as Lieca and Trimble provided technology presentations and an overview

of country standings advancing those technologies. It became clear quickly, Europe is taking the lead in UAV/UAS operations.

The group function is to develop a national message for the future surveying community at a national level to be filtered through the state organizations and local chapters for implementation.

I will continue to keep the PLSC and the membership informed of the initiatives and look for input and ideas moving forward. If you have any thoughts or ideas, email Becky Roland with the PLSC at broland@plsc.net and I will get those thoughts into the group discussions. ■



The poster features a stylized tree logo at the top center. Below it, the text reads: "LAMP RYNEARSON", "LEAVE YOUR LEGACY", "JOIN", "OUR TEAM OF PROFESSIONAL SURVEYORS AND ENGINEERS". To the right is an illustration of a surveyor in a hard hat using a tripod-mounted instrument. Below the illustration is the slogan "Work Here. Grow Here." and a silhouette of a city skyline. At the bottom, it lists "LAMP RYNEARSON COMPANIES" with logos for LAMP RYNEARSON, TZA Water Engineers, LARKIN AQUATICS, and LAMP RYNEARSON. The website addresses "LRA-Inc.com | TZA4Water.com | LarkinAquatics.com" are listed at the very bottom.

Rule of the Month: Pincushions, Binaries, New Board Rule 6.5.4.1 and C.R.S. 38-51-104

By Earl Henderson, PLS

If you're not familiar with the concept of binaries in astronomy, it's a term used to describe two stars that we see that are very close to each other. There are two types of binary stars. There are Actual Binaries where the two stars are in actuality very close to each other. And there are Visual Binaries where the two stars are actually very far apart from each other but from our perspective only appear to be close to each other, one being much closer to us than the other.

I'm reminded of these two types of binaries when I think of pincushion monumentation. An actual pincushion is where two monuments are found very close to each other, both of which claim to be representing the same corner. Most often these actual pincushions are a result of PLS's that don't understand proper retracement as it relates to the laws that govern land surveying, nor do they likely understand the errors involved in their work and the work of others in this and bygone eras. From a measurement point of view, the actual pincushion doesn't usually make sense, especially if you take into account the combined errors of the PLS setting the existing monument (either last year or 100 years ago) and the PLS setting the subsequent monument. From a legal point of view an actual pincushion doesn't make sense either as the decision to set a new monument very close to an existing one must be made as a result of some substantial evidence that clearly indicates that the existing monument is 0.15' off. And how often have we found evidence that specific?

Thankfully, we now have a new Board Rule that will, hopefully, cause pause among the PLS community prior to setting a second monument where one already exists that claims to be the at the location of the corner in question. If you haven't already heard about it, Board Rule 6.5.4.1 went into effect in September of 2015 and reads: "6.5.4.1 Documenting New and Existing Monuments. If a monument is set, as a result of a land survey, that represents the same corner or control corner of an existing monument, the professional land surveyor setting the new monument shall, on the resulting land survey plat, make note of the reason the professional

land surveyor did not accept the existing monument."

It's important to note that BR 6.5.4.1 does not prevent any PLS from setting a second monument. It only requires that if you do so you must explain yourself. That's a terrific thing because if you can't verbalize why you're setting a second monument then maybe you should re-think the idea. And if you can verbalize why you're setting a second monument you hopefully have good reason and substantial evidence to do so. And there are situations where good reasons exist and the evidence points to another location. Another benefit of explaining yourself on the plat is that all future PLS's that use either of these monuments will have an explanation, in writing on the face of the plat, so they won't have to bother you by calling you up and asking what the hell you were thinking? :)

But there's another kind of pincushion binary which I've defined as a Visual Pincushion Binary, better known as a paper pincushion. These are the visual pincushions which show up only on paper where a monument is indicated as being found, for example "0.15' North and 0.06' West of actual corner". In other words, the PLS has determined, again likely through what is only perceived to be very precise measurements, that the property corner does not fall at the found monument, but then the PLS, instead of setting their own monument and creating an Actual Pincushion, references the found monument without setting a second monument of their own. I'm only going to point out 2 of the many aspects of this situation that, IMHO, are descriptive of a total misunderstanding of our responsibilities as PLS's.

First, the paper pincushion seems to me to indicate that the PLS understands the legal implications of setting an actual pincushion because he/she doesn't want to follow through and set a pincushion monument. But they are also conflicted, or misguided, by their calculations. I wonder if the paper pincushion represents a subconscious understanding of retracement principles clouded by a desire to make the measurements and calculations work out to within 0.01'. Second, and

here's the rub, C.R.S. 38-51-104 requires that the PLS set monumentation at all corners once those corner locations are determined for each and every land survey. So since there's no choice but to set monuments at the corners you have determined, there should never be a paper pincushion ever. They simply should never exist. Any paper pincushion is a direct violation of C.R.S. 38-51-104. And of course if we ever set a monument, such as a reference monument to a corner location, our PLS# must appear on that monument cap (C.R.S. 38-51-104(b)), so the use of another PLS's monument as a reference monument is not acceptable either. And you can't just stamp "RM" on the existing monument. That PLS set it as an actual corner, not a reference monument and only his PLS# can appear on it. You have to set your own.

This is just an introduction to the many misunderstandings that lead to both kinds of pincushions. Long books have been written about this subject. If you take nothing else from this discussion, take this; if you find yourself about to create an actual pincushion, be able to verbalize your reasoning to a colleague. If you can't stand up in front of a group of

your peers, and with absolute confidence describe why you're creating the pincushion, you should likely re-think what you're about to do. If you can do this, then do it on paper as that is now the requirement. If you're about to create a paper pincushion, stop. The law forbids this. So don't.

Now...have I ever told you about star clusters? ■

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Control Points – Number 32

Terminus

By Warren Andrews, PLS

Have you ever though how important boundaries are to animals, and particularly, to humans? Paul Bacus comments on “Terminus” brought up the subject, which I’d like to expand upon.

For example, the only boundaries that fish and other sea creatures have are the coasts and shorelines that bound the water they’re in. (Granted, there are some creatures that can exist in both environments, such as seals and turtles, etc. but they are basically water creatures). Another classification of living things is all plants that are not able to exist except in the fixed soil they are rooted in. They are not basically mobile so boundaries don’t mean much to them except maybe to drop seeds across or randomly grow roots under.

But what about animals? After a great many millions of years, animals have learned that the territory they control means their physical survival. If it’s too small an area, there’s not enough food and they die. The drive, push, or instinct to survive is probably the most powerful thing for any living entity. (Why do you think people fear death so much?)

But to get back to the basic concept of territory and boundaries...humans have to own, control, or use a piece of land to satisfy this physical survival need that seems to be built into their genes, even if they are completely unaware of it as almost everyone is. (Why do you think Communism doesn’t work in practice, only in theory?)

Most educated surveyors know of the Egyptian tomb painting of the “rope stretchers” used to reestablish the farm boundaries after the annual Nile flooding wiped out



An ancient boundary stone.

the previous markings. But most probably the original inviolability and sacredness of boundaries goes clear back to India, to the Mohenjo-daro civilization of the Indus Valley or to the Ganges River Valley, ten thousand years and more ago. This comes through in practice with the much later Roman worship of the god Terminus, still today a good word in English, meaning boundary or end.

The Roman ritual of setting a boundary stone involved burning an offering to the god in the pit in which the stone was to be set. (Does this carry through today with the charcoal or broken glass or pottery under the G.L.O. stone to prove it’s the true and original section corner marker?) Also, the Roman boundary stone was inscribed with potent curses for anyone who moved it. (I guess they had land crooks clear to the beginning).

Annually, there was the feast of Terminalia on February 23rd, the end of the Roman year.

Maybe the PLSC might bring back the celebration of Terminalia on February 23rd as a uniquely land surveyor’s day. What do you think? ■



The Roman God Terminus on a boundary stone

A Call for Action – for a Vanishing Profession

By Gaby Neunzert, PLS

Certainly since the founding of PLSC in 1966 and most probably earlier, the future of the profession called “surveying” was on the mind of its founders. As reflected by the minutes, the discussions circled “endlessly” around the topics of recognizing a surveyor as a professional individual with legal standing and a large array of intellectual tools. In the meantime, membership and registration decreased, with the banner carried by the “old timers” who started the career as a rodman with a transit and chain crew. Following below is an array of thoughts which differs from the past, in that all has been spoken and it is now time to act decisively. Expressed in a more modern context, for a property resurvey, it is now time to leave the comforts of an air-conditioned office with its computer and head to the field to physically gather evidence.

There is NO one-shot answer, but viable, high profile academic surveying programs, housed at regional *Centers of Surveying Education* (CSE) definitely would be a step in the right direction. Thus the following is proposed:

a) A NATIONAL organization, such as NSPS, or even a regional organization, such as WFPS takes on the responsibility of developing a model surveying curriculum under ABET guidelines and as a guide only, subject to modifications at a local level.

b) The ultimate goal of any surveying curriculum is to be about 4 years into the future. Most programs of the past were (are) 10 to 20 years behind the present. It would be money well spent by everybody to develop courses which at least reflect the current state of knowledge, before a “new” program is started. A team of experts could be hired to develop a course, for example: GPS, and then maybe even make it available for sale. Note: other than an exercise in math manipulation, there are probably no more than 5 GPS courses in the entire US.

c) With the curriculum in hand, and within the outline of several states forming a region, rather than state boundaries, one or several alternate locations can be selected as possible *Centers of Surveying Education* (CSE). Expanding beyond state boundaries would minimize local provincialism.

d) Rather than a virtual class setting, it is envisioned that each CSE is conventionally housed with a classroom and hands-on surveying laboratory. An electronic outreach program, especially at a pre-high school level, could be used to solicit future students and should be developed by a national entity.

e) For a setting within academia, the following is suggested:

1 – It seems that a free standing surveying program is unable to support itself, therefore it is suggested that that surveying be “housed”, for example, as an option within an existing civil engineering program. In order to maintain equal stature, it would require that the surveying faculty be a PhD tenure track faculty.

2 – In order to minimize the academic constraints, it is suggested that the surveying program be a free standing program, at a state supported Junior College. Even though possibly lacking in prestige, the most obvious advantage would be that it would allow non-PhD faculty to be recruited to teach.

f) Depending upon the physical setting of the CSE program, staffing is a problem. Learning from the past, at least 2 faculty members are needed, with alternating tasks of teaching and curriculum development/curriculum improvement, etc. With a single faculty, a startup program would very vulnerable to a person’s mental “burnout” and physical demands. Dual faculty membership would also allow participation for professional development in workshops and seminars. On a short time basis only, adjunct faculty could still be recruited from the ranks of local and licensed surveyors. In order to remain viable in a learning environment, students and staff need the interaction of several personalities.

f) A tentative annual budget, to be maintained for *at least 5 years*, is shown below:

2 ea. Faculty, salary/fringe	\$ 250,000
Office space, classroom	\$ 10,000
Equipment, purchase/rent	\$ 50,000
Curriculum/outreach activity	\$ 10,000

g) Since financing at a local level in the past has been less than successful, a top down financing of the CSE program is envisioned. Considering the unreported losses to the Federal lands from property infringements and especially as the biggest landowner in the country, the BLM could (should) take the lead with a hard line item financing. It should be emphasized that it is in the financial interest of both the Federal and State Governments to have competent and well educated surveyors in their midst. A second tier of financing could be established, by soliciting each state for a firm financial commitment toward the education of this necessary state resource. Finally, conduct an assessment of each surveying organization to make a contribution, proportional to their membership, and diverting a portion of the annual registration fee to the program. Obviously the above does not preclude industrial sponsorship, which definitely should be solicited. For a program to remain financially viable, it would be necessary to have at least a 5 year commitment. ■



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March 29, 2016

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 and officially filed from October 28, 2015, through November 13, 2015, and are now available in the Public Room, Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215. The surveys will also be available at <http://www.glorerecords.blm.gov>.

The accepted surveys 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>
Tps. 50&51 N.	R. 1 E.	NMPM	1624	Plat Only	11/13/15	3
T. 48 N.	R. 3 W.	NMPM	1624	Plat Only	11/13/15	6

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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PLSC Board of Directors Meeting Minutes

January 14, 2016

Attending:

Todd Beers, President
Kayce Keane, President-Elect
Alan Blair, Secretary/Treasurer
Paul Bacus, Northern Chapter
Patrick Green, Western Chapter
Leif Joy, NW ¼ Chapter
Steve Parker, Southern Chapter
James Rihanek, Central Chapter
Thomas Sylvester, Western Chapter
Roger Nelson, Past President
JB Guyton, NSPS Representative
Pam Fromhertz, NOAA/NGS
Brian Dennis, Young Surveyors Representative
Becky Roland, Executive Director

1. Approval of Minutes from previous meeting.

MOTION: To approve the October 2015 meeting minutes as amended. (Rihanek/Parker)

Approved unanimously.

2. Open director position

- a. Alan Blair's remaining term (through 2016)
- b. The Board reviewed the candidates.
- c. Each Director voted and Teresa Smithson was elected.
- d. Becky will call Teresa.

3. 2015 Budget Review

- a. The 2015 Financials were reviewed. There may still be one or two invoices to post.
- b. The estimated net surplus is over \$25,000.
- c. The Board discussed how scholarship and educational program support can be increased in 2016.

4. Logo revision

- a. Board consensus is to have potential versions at the Summit for voting then release to the membership for voting/competition.
- b. Becky will request logo designs from the membership and then send an online survey for voting by the membership after the Summit.
- c. Goal is to have a decision at the 2017 Summit.

5. Awards

- a. The Board discussed the total number of awards given by PLSC.
- b. It was noted that the awards do not need to be given annually, and there is no minimum number that needs to be given.
- c. The Board consensus is that the recognition of members and their efforts is important.
- d. Leif Joy will champion the awards program and thanked the Board for their input.
- e. The Board is asked to make nominations for the 2016 awards. Deadline is February 5.

6. Budget

- a. Steve Parker will ask Mike Bouchard for information on the scholarship fund's initial establishment and donor intent.
- b. Alan Blair and Becky Roland will be meeting with the Investment Advisor on the current market and where funds are invested.
- c. The Scholarship Fund and its use need to be added to the next Board agenda.
- d. Additional member benefits should also be discussed.

7. Silent Auction Table

- a. Need to note a minimum bid on all items.
- b. Tom Sylvester offered to help coordinate. Teresa Smithson will be donating an authentic Afghan rug, and should be asked to assist with the table.
- c. The Afghan rug should have a minimum bid of \$700.

8. 2016 Summit

- a. Kayce Keane asked for volunteers for speaker liaisons. She will send the list of open positions.
- b. We will need registration assistance in the mornings, especially Wednesday.
- c. We need laptops and LCDs.
- d. Paul Bacus asked Directors to sit at different tables for lunch on Friday and get feedback on what legislative issues PLSC should be concerned with (i.e., County Surveyor, Continuing Education, etc.)
- e. JB Guyton requested topics for the Chapter Summit.

9. TrigStar

- a. Jan Sterling suggested that Tom Sylvester take over this program. Tom will consider this.

- 10. GIS in the Rockies
 - a. Steve Parker is now the Vice President.
 - b. They will partner with ASPRS in 2016. The minimum criterion is to make a profit and brand the conference.
 - c. \$3000 was paid to PLSC for their conference support.
 - d. Need to locate a new venue.
- 11. Chapter Reports
 - a. Southern – Annual meeting next Tuesday to elect new officers. Don Halsey will be the new President. They will develop their 2016 calendar at the meeting.
 - b. Central – meeting tonight.
 - c. Northern – continuing their regular meetings.
 - d. Western – met last night and meet each month.
- 12. Next meeting – TBD in April, Chapter Summit
- 13. Adjourn ■

Treasurer's Report

Account Balances:

PLSC Scholarship Fund Accounts as of 4/08/2016
 Checking = \$3,373.62
 Savings = \$50,976.38
Total PLSC Scholarship Fund = \$54,355.00

PLSC Operating Fund Accounts as of 4/08/2016:
 Checking = \$123,599.95
 Checking (2) = \$83,215.80
 ProPay Processed Credit Cards = \$110,498.52
 Savings = \$30,273.52
Total of PLSC Operating Accounts: \$347,587.79

PLSC Investments (From November 2015):
Operating Funds Investments (From November 2015)
 Franklin Templeton Investments = \$41,907
 American Funds = \$108,093

PLSC Scholarship Fund Investments (From November 2015)
 Merrill Lynch = \$36,749
 Franklin Templeton Investments = \$35,413
 American Funds = \$91,343

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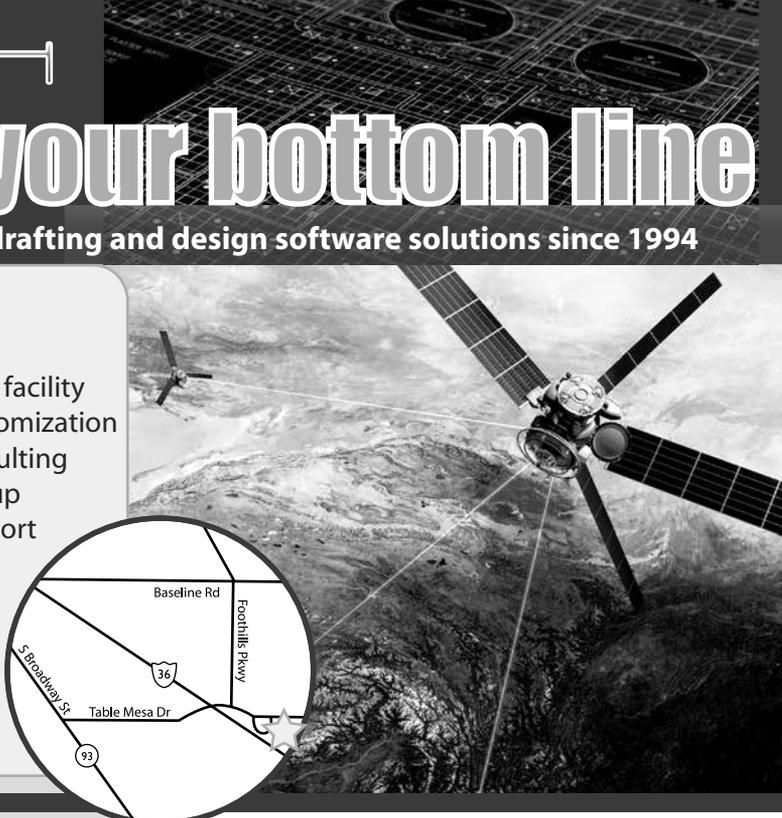
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WHEREAS, the nature of surveying has changed dramatically since the Colonial Era when it was defined by the description and location of land boundaries; and

WHEREAS, the surveying profession has since expanded to include hydrographic, engineering, and geodetic surveys; and

WHEREAS, professional surveyors provide important services through the use of legal principals, procedures, sophisticated equipment, and techniques; and

WHEREAS, the role of the surveyor is important in the development of Colorado; and

WHEREAS, there is occasion to recognize professional surveyors and important work provided for our communities, and to reflect on the historical contributions of surveying and the new technologies that are constantly modernizing this honored profession;

Therefore, I, John W. Hickenlooper, Governor of the entire State of Colorado, do hereby proclaim, forever after, the period between March 21, 2016 and March 25, 2016, as

SURVEYORS WEEK

in the State of Colorado.



GIVEN under my hand and the Executive Seal of the State of Colorado, this twenty-first day of March, 2016

John W. Hickenlooper
John W. Hickenlooper
Governor

THE WHITE HOUSE
WASHINGTON

March 18, 2016

America has always been driven forward by those who push the boundaries of what is known, give the dreams we envision the chance to flourish, and use the wisdom that is born out of our restless curiosity to shape a better future. Understanding land's importance in charting the course of our shared destiny, some of our Nation's oldest surveyors include our Founding Fathers. They knew, as you do, that in order to thrive as a Nation and as a people, we must first determine who we are and where we intend to go.

As you reflect on the impact surveying has on our country and work to empower young people to explore and define their dreams, I wish you all the best.

A handwritten signature in black ink, appearing to be "Barack Obama", with a long horizontal line extending to the right.

Report of the NSPS Spring Business Meeting

March 17th & 18th, 2016 – Arlington, VA

By John B. Guyton, PLS, Colorado NSPS Director

I attended the National Surveying, Mapping and Geospatial conference at the Crystal City Hilton in Arlington, Virginia in March, a large conference that was again held in association with MAPPS (Management Association for Private Photogrammetric Surveyors), and did my best to represent Colorado surveyors in the national meeting, and with our elected officials in Washington.

The multi-day meeting began with orientation and training on Tuesday, followed on Wednesday with Lobby Day, in which many of us from NSPS and MAPPS brought issues of concern to members of Congress. We had 4 new issues to pursue this year, due in part to the success of seeing past issues move successfully through congress, as observed by NSPS lobbyists John Palatiello and John Byrd.

I was able to meet directly with Rep. Mike Coffman and with the legislative aids for Reps. Ken Buck, Diana DeGette and Jared Polis, and Sens. Cory Gardner and Michael Bennet (direct meetings with all but Rep. Coffman were cancelled due to the Washington D.C. Metro shutdown), to ask for their support on the following issues:

1. Workforce Development legislation, to create a public private partnership to help assure development of the future geospatial workforce that America will need to

contribute to economic growth, preservation of property rights, home ownership and the rebuilding of the nation's infrastructure. It will address the critical shortage of PhD instructors in surveying in America's colleges and universities, while attracting the next generation of surveyors and mapping professionals.

2. The Flood Insurance Reform & Modernization (FIRM) Act. The National Flood Insurance Program is \$24 billion in debt, and current FEMA maps are using elevation data that is, on average, 35 years old and is lacking in an accurate inventory of structures and address data. The NSPS is recommending flood mapping reforms to help increase accuracy, including 3DEP (LiDAR/elevation data), structures inventory, address/parcel data, and streamflow information.

3. The Freedom from Government Competition Act. This legislation seeks to expand the use by the government of private sector surveyors, applying the so-called "Yellow Pages Test." It states that if there are private companies to be found in the yellow pages that provide services that the government is also providing, then those services should be subject to market competition to provide better taxpayer value.

4. The Digital Coast Act and the Hydrographic Services Improvement Act (HSIA). This would provide funding to NOAA to provide support for coastal mapping and management activities, as well as providing accurate geospatial data to end users, and reauthorizing NOAA's navigation-related hydrographic surveys of America's harbors and ports where most exports and trade activities occur.

On the following Thursday, I had my first meeting as the Colorado representative on the Western States Director's Council, chaired by Cotton Jones of Wyoming. There were 22 people in attendance, including 4 guests. A variety of topics, both new and ongoing, were discussed. A committee looking at issues around unmanned aircraft systems (UAS) was made permanent; a motion to increase travel to the meetings of the Western Federation of Professional Surveyors (WestFed) was made, to forge a stronger alliance and achieve a common cause; BLM procedures in Alaska were discussed; a motion was made to write a letter to the National Association of Realtors to amend their Code of Ethics to include language that Realtors not engage



Becky Roland and JB Guyton meeting with Colorado Representative Mike Coffman in his office.

in the location of property boundaries; the “sorry state of affairs” regarding surveying education was discussed at length, and a new proposal from Virginia was introduced; and several organizational and leadership issues were addressed.

The general membership meeting was held all day on Friday. I was honored to be presented with a certificate of appreciation to the PLSC by President-elect Jon Warren, for joining in their memorandum of understanding for membership in the NSPS.

Other topics discussed in the meeting include:

- Geodetic Certification committee is pressing forward. Many of you may have seen the online poll requesting input from our fellow surveyors across the country, if not please seek it out and complete it. Dave Doyle offered that they want to make a concerted effort to obtain professional input and support versus relying on recommendations from an academic panel. From my point of view, it appears to be a thoughtful and commendable approach.
- The NSPS Young Surveyors will be providing a signed MOU soon and they will have a non-voting seat on the NSPS Board.
- NGS 2022 Datum – Model Law. NSPS continues to work with NGS on templates we can provide the states to use in crafting legislation to recognize the new datums.
- NSPS is working on a white paper to share with our state associations to support professional licensing. We are aware of a tangible force within federal and



JB Guyton receives a certificate of appreciation for the PLSC from NSPS President-elect Jon Warren.

local governments that seeks to eliminate licensing, referring to it as an impediment to work force development and our economy.

- NSPS will develop “Best Practices Guidelines” which our membership can follow to help ensure Federal Trade Commission (FTC) Compliance.
- Our Joint Government Affairs Committee will pursue having the geospatial (or Geomatics) field included as a STEM discipline (Science, Technology, Engineering and Mathematics). This classification would open up sources of funding for grants, scholarships and tax credits targeted towards STEM majors. ■

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Scenes from the 2016 Rocky Mountain Surveyors Summit and Chapter Summit





Chapter Summit 2016 Summary

6th Annual Rocky Mountain Surveyors Summit, Arvada Center

March 3, 2016, 7:00 to 9:00 P.M.



JB (Guyton) (Facilitator): Introduction – This meeting is to allow the chapters to express their concerns and ideas to the board and to PLSC officers. We are taking notes, so please speak clearly. We will leave exactly at 9:00 and have 13 topics to cover. Tony Cavell of NSPS will speak at the end of the discussions.

Todd (Beers): This Chapter Summit is an opportunity to share, and we get value from it every year. We are looking for your input and direction, especially from western/distant chapters. Timeframe is limited; no side conversations please.

JB: Topic #1 is education. I will turn the floor over to Alan Blair

Alan (Blair): First, I would prefer the phrase “professional development hours” rather than “continuing education.” The PDH’s are important; would like to get more people to benefit from the offerings at this conference. Based on my own discussions at this meeting, my impression is that over half in today’s crowd have licenses in other states, many of which require PDH’s.

Paul (Bacus): From North Dakota to Texas and west,

only three states do not require continuing education, California, Arizona and Colorado. Texas uses a civil engineers formula, 12 hours instead of 15. We will need it for reciprocity and for reputation.

JB: This has been going on in Colorado for many years and we have been unsuccessful in requiring PDH’s, but will continue to try.

Paul: One of the problems has been that engineers don’t like it, and chemical and electrical engineers are rarely licensed. On #2, the County Surveyors issue, I wanted to let you know what we are doing. Statute gives permission for county boards to compensate county surveyors and they think they own a surveyor for a thousand dollars a year, work them to death. It is a misconception. Senator Martinez sent out a questionnaire that was unscientific and insulting, and may go on an attack next year. Will get the legislative committee to work on this; would like something on PLSC website about what we are doing and a way for people to provide feedback.

JB: On to #3, voting issues for Associate and full members.

Tom (Sylvester): Associate memberships are attractive because the fee is lower; my wife joined but does not get the magazine, *Side Shots*. Associate members should be receiving *Side Shots*.

Eric (Carson): Other organizations have different membership levels, and one option is that full members get the printed magazine and associate and youth members get only the electronic version. I like getting the printed one, but full electronic copies should be considered, since printing and mailing is expensive.

Todd: Becky, do we have an idea of the number of associates vs. full memberships?

Becky (Roland): I do not, but the major cost we pay is for the production, and the printing cost is minimal; each additional printed copy cost is minimal. But there are ways to enhance the pdf files posted on our website, such as page turning, links for sponsors, etc. Pdf's on website are free and shared with other state organizations. They love it.

JB: *Side Shots* is well read online in other states. I will send *Side Shots* to associate members if the board directs me to do so. I've talked to other states, and if emailed, they just don't read it as easily as a hard copy. You can take it to a doctor's office and read it then. Becky, would you like to talk about #4 through #6?

Becky: This year we have allowed people to renew their membership with this year's summit registration without having to log in, we also added a link where you don't have to log in to renew your membership. A number of people renewed with their summit, so I assume that worked really well. We were slammed in the last two weeks with registrations.

Dave (Kuxhausen): I thought it worked really well, and pleased with the trial run to test it this time. But the discounted rate was only a 2-week window.

Becky: Actually, no one paid the higher rate until the conference started.

Tom: I would have liked to sign up in December, for end of year taxes.

Teresa (Smithson): I also wanted to sign up in December for tax purposes.

Todd: I would recommend opening registration by October 1st for that reason. Login information created confusion, needs to be crystal clear and easy. People will give this one shot and give up if they don't get through, same thing for registration.

JB: I think the Chapter Summit helped us get this improvement.

Becky: Absolutely.

Todd: It gets confusing having one email address as the key; it has to be based on one person. One person, one member of a company, one exhibitor, etc. must be figured out and make that happen easily.

Becky: To answer that, you can define the username to be different for each membership, but we don't have a combined, it's just one membership, one order.

JB: The next issue is still the PLSC website, but value added memberships also.

Dave: I've heard from some people today about value added. Some suggested having membership cards, and put the PLSC logo on them and NSPS logo as well.

Becky: I haven't had time to get those out before the summit but I will do that.

Todd: We used to get cards and stickers from Diana like certificates and cards. Are the cards hard copy or electronic?

Dave: Wallet cards were preferred. PLSC stickers would be good too.

Leif (Joy): Can vendors offer a discount, like 5% off for members who have a card?

Dave: I suspect that if you spoke to some vendors, they would be all over that. 5% might be high, but I'm pretty sure most would respond.

JB: We are now talking about ABET/education, #7. Some of you have been very successful lately.

Patrick (Green): We've got the initial ball rolling on a proposed degree program at Mesa State University, a 4-year surveying/geomatics degree, working with a department head. We have obtained letters of support from the county commissioners, the PLSC, NSPS and the WCLS. With that kind of backing, we stand a reasonable chance of getting something there. I expect more to happen after classes end in the spring.

JB: And they know that the PLSC will support it financially if they succeed.

Tom: I recall that the law is ABET or board approved. There seems to be a difference, some non-ABET are accredited without having a PhD instructor. Until we get a program in Colorado, we should have something on our website, an easy way for people to find out where to get their education. I've looked at the University of Wyoming and others.

Dave: I think it is great about Mesa State, but if the requirement is a degree in 2020, that means we need a program this year. I am not an advocate for this four year degree requirement, and it could kill our profession.

Alan: It's not a full four year degree, it's for 24 credits. I think we may be too aggressive in seeking a 4-year program when an associate's degree may be sufficient.

Eric: I agree with Dave, it needs to be in place now, and it is not. I feel that we are going the wrong direction in requiring a four year degree. Fewer people will enter the profession. A kid getting a 4-year degree in civil engineering would be better off.

Anthony (Whitlock): It's not clear that only 24 credits are required. I'm hearing that a 4 year degree is.

JB: There is a committee where you can talk about this subject tomorrow.

Tom: I have researched the Western Interstate Commission on Higher Education for people wanting to go to New Mexico for education. There is an agreement with most western states where a Colorado resident doesn't have to pay the full tuition cost for going to a neighboring state like Wyoming or New Mexico.

Brian: Getting the educational requirement clearly listed on the website is important, should be there tomorrow. A list of outside educational opportunities still hasn't happened, schools or on line sources. That should be on the website as well. We need to have someone step up to research this and get it done.

Todd: Continuing education is a very different thing from the degree requirements. We have had a list in the past for programs in the state, now we need it for surrounding states.

Teresa: I pull such lists off of other websites constantly, and most of those links are dead. As fast as links are posted, they become obsolete. Calgary is a consistent program; Puerto Rico graduates more surveyors every year than this entire country does, something like 50.

Steve (Parker): We have been working on career points of entry, career progression, all the way to where your career takes you. We get so many phone calls from people wanting to know how to become a surveyor. A flow chart on the website would be good, but links must be maintained. It is still better than long phone calls with everyone with an interest. If any of you could write your thoughts about career progression, please send them to me.

JB: I am going to ask Teresa, Patrick, Leif, Tom to think about an article on this subject, to show everyone where

we are. We all feel very intensely on this subject. We must take baby steps, but you have all made great progress.

Anthony: Until a program is in place to meet these requirements, can events like this count toward a degree?

Cathy (Lyon): It needs to be recognized that if you have a degree that has a lot of the same background information, more credit should be given for that coursework.

JB: This goes through the board, and we need to advocate for this, I agree.

Todd: Gene Kooper was the caretaker in his garage for the Metro survey equipment, and we are now in possession of it. It is older, and will do an inventory. We have been building up dollars over the past few years, and if we can contribute to a program to get it started, we are in a position to do so.

Tom: Central High School in Grand Junction could use such equipment.

Steve: There are a lot of military guys with survey experience who are looking for an entry here in Colorado.

Leif: I want to be sure we recognize the efforts of Tom and Patrick for their efforts with Mesa State.

JB: I would like to turn it over to Steve to discuss #8, chapter membership drives.

Steve: We have built a map to delineate chapter areas, in progress. Geocoding the counties with addresses. Lists will be sent to the chapters, to reach out to new people who are uninformed about the PLSC and those who are estranged. If we call people and invite them to chapter meetings, they come. Email, not so much.

Teresa: I live in Denver but I am a member of the Western Chapter. There is no schedule on the website of when the chapter meetings are held.

Steve: For the Southern Chapter, we had our calendar populated, but that wasn't enough. Then used "save the date."

JB: Theresa, we could do a better job on that.

Pam,: Do I understand that the chapters have their own websites? I have not been able to find them.

Becky: There is a chapter list at the bottom of the page, hyperlinked to the three chapters who have their own

sites. I don't go out to them, only post what is received.

Pam: You must let people know constantly of upcoming events.

Kevin: I agree. Emails are a struggle, dynamic. I send out some 200 emails before an event, and get 60 out of office or undeliverable replies.

Pam: I know there are services you can get to maintain listsurvs, people sign up and take themselves off.

Todd: This has bothered me for quite some time as well. We need to make sure that the chapters are interfacing constantly with the websites. A schedule should be sent in to Becky, not Becky going after them. Same with who is on your board after an election. Needs to be automatic.

JB: We have chapter presidents here; you need to get this information to Becky on a regular basis.

Todd: Meeting notices should be up front, on the front page. We have tried membership drives before, provide lists to the chapters. That chapter board will know 75 to 90% of those listed. You pick up the phone, get comments and feedback about why they are not members, find out if there were renewal problems, if they feel the PLSC isn't doing anything for them, and so on. That return will be significant.

Steve: Regarding calendars, are you using Google calendars?

Becky: No, not web based. It is part of the web site.

Steve: I could be populating the Southern chapter website with yours if web based.

JB: We are leaving right at 9:00 and must leave time for Tony, but we are making good progress.

Tom: As for #10, some of us on the Western slope feel a bit isolated and would like to invite officers to come to our meetings. Web meetings are good also.

Todd: We have had financial burdens but now have a budget, and would like to resume board meetings on the western slope, but we need to hear from all of you to tell us what's going on to pick a time.

Leif: That's a two way street, as we can drive over here too.

Becky: PLSC receives phone calls and emails as we discussed, from people wanting to get into this profession and need advice. I have been sending them to two people but need more. It's a half hour

conversation, basically mentoring. If you are interested in serving in this capacity, please email me. And follow up with me that those people have heard from you. Also, DORA wants a list of acceptable courses/titles that DORA would accept, as they don't have the manpower to do this. When they are evaluating transcripts, there are no guidelines for what courses are acceptable.

Teresa: Course works on transcripts have a catalog attached to it, very structured and easy to do. People who are not surveyors are reviewing a transcript, could use a course list reviewed by surveyors about which courses that are acceptable.

Becky: DORA is open to participating.

Todd: We need to have a further conversation, as the number of courses is unlimited. We need to know how to go about this.

JB: This will be on next year's agenda for sure. Let's move on to #11, the by-laws. If there are no comments, it would be good to skip.

Brian: I would like to say that people can email concerns to me or Steve or Paul on the legislative committee, outside of this meeting.

JB: Thanks Dennis. Are there any other topics of concern, things not being addressed?

Leif: I think you're doing a great job.

Todd: When I started, there was a distinct disjoint between the PLSC and the chapters. I think we have changed and moved in the right direction, but we are always striving to make sure we are all where we need to be.

JB: We talked last year, but do we need to do a Chapter Summit every year? Attendance seems to be growing. Some want to do them more often.

Dave: I absolutely agree that this should be done annually.

Brian: Twice a year would be better, with more movement on issues that you can tell the membership about.

Tom: More often is a good idea, but for those who have to travel long distances, this is convenient when combined with this conference; a midyear meeting might have a much reduced attendance.

Becky: Perhaps if a board meeting is held elsewhere in the state, it could be combined with a chapter summit.

JB: We would have to get enough of a quorum for practicality, enough attendance in person or on the web.

Shawn (Clarke): If you don't try this year, next year will be the same list of topics with nothing done. I understand that it's a practical thing, but I think you should make the decision to try it.

Devon (Arnold): We are more likely to take actions if we meet every six months. A year seems like forever, too easy to put it off.

Brian: I could commit to September.

Tom: We have a chapter meeting in March, will try to organize and see if we could do a board and chapter meeting in September.

Todd: August or September possible, should also have call-in capability. Need action items prior to a meeting, see where we stand. We need to keep doing what we are doing here tonight, focus on how to improve across the board.

Steve: On the southern chapter website, referrals are an issue. If someone calls looking for a surveyor and it's a really good lead, I will send it to somebody I trust. Otherwise, I set up a reference page on the website that has all of the surveyors there. I wondered if this could be done on a statewide level.

Dave: It's hard to do, any list implies a hierarchy.

Becky: We did discuss this on the board; we discussed color coding surveyors who are PLSC members.

Steve: On the southern chapter, we don't discriminate, we list everybody. But you could make the icons better for PLSC members, or sustaining members. There's a little form if you feel you've been left out, and I will put them on there.

Brian: You could pay a \$20 fee to have a listing, to get some revenue also. The problem is that companies go in and out of business as fast as people change companies.

Eric: There is an added benefit to being a member or sustaining member. In *Side Shots*, that goes not to the public but to other surveyors. Having them highlighted on a website would be visible to the public.

Todd: We have a website committee, and have talked about having a sustaining member page with hyperlinks. Steve is the chair, Brian also on committee. We are always looking for added value for members. Do we want to venture into something identifying businesses on a statewide basis, and where would that list come from?

Steve: For our chapter, it began with a Google search, but another dozen wrote, asking to be on it.

Anthony: The sustaining members are usually Jacobs, Woolpert, Farnsworth, or large companies. We don't take cold calls for lot surveys. That's why we push them toward small shops.

Steve: It is a benefit to surveyors because they are being found.

Becky: I cannot recommend anyone now, so I send them to DORA, which is a big list that doesn't tell them anything.

Cathy: When people pay their dues, we should ask if they want to be included on the website for cold calls, and they fill in the information.

JB: Good comments. Is there anything else before we turn this over to Tony?

Brian: The website committee is Becky, Steve and me, and there isn't enough time to put everything on the site we want to have on it, so we need other people to give information to us. We need other people to help.

Steve: Just in the past week, I've had three volunteers willing to assist with content.

Todd: I received extra funds in the budget if we need additional programming or other website resources that are not just volunteer efforts.

JB: I will now turn the floor over to Tony Cavell, president-elect of the NSPS, until 9:00.

Tony (J. Anthony Cavell): The hospitality here in Denver has been overwhelming. Accept the baton handed to you by your predecessors and be prepared to pass it on. I wanted to respond to comments I heard tonight from the perspective of an outsider.

Anthony: Do you really get calls from people interested in the profession? Who are these people, other than your own children? I don't believe it.

Tony: The most common thread I've heard is, "Look what works for the engineers, this is what surveyors should be doing." It's wrong. Also, there is parochial pride, such as if a degree is required, we must provide one by ourselves for ourselves, in each state, which is unattainable. But the nation doesn't need enough surveyors to support 50 undergraduate degree programs.

Devin (Arnold): I was introduced to surveying in high school and got interested in it in my 20's. We need to get into the schools.

Tony: The average age of discernment is the more important question; most were not seduced by the profession until their mid-20's. We have programs for high school; TrigStar is the flagship, for college scholarships and matching funds for teachers. It answers the old question for math teachers of what is a student to do with their math education when they get out of school. You have to pick your targets; my preference is for people in their mid-20's who are married, may have kids. For undergraduate programs, you need to graduate at least ten students a year. For 50 states, if you do the math, you end up with too many surveyors. I think a regional program, where a regional tuition is charged, is a good idea. NSPS is busy, we try to have this and many other topics covered regularly. We have 53 committees and subcommittees. President Warren has assigned the task to me of making sure every one of these is populated. External affairs alone has 20 subcommittees. Others are budget, bylaws, certification, education, government affairs, membership (attracting, retention and benefits), elections, professional practice, standards, and public relations. Imagine how much we can achieve together. (Applause).

Brian: To wrap up, Tony and I were both in Minnesota this month. At the PLSC and NSPS levels youth are being targeted for recruitment and retainment. There were about 80 folks there. It was a fantastic meeting,

things are being done. People often ask what the national association, or "we" are doing, but I thought the more important question is, "what are *you* doing?" If you personally aren't doing anything, get involved.

JB: This concludes the Chapter Summit for this year. Thanks to all of you for coming. ■

Open letter to the editor of the Utah UCLS Newsletter:

Dear Editor:

The PLSC Editor of the Colorado Professional Land Surveyors publication, *Side Shots*, courteously let me have a copy of your Page 7 in Volume 4, Issue 11 of March, 2016. Thank you for using my Control Points Number 31 article, "What Would You Do?" verbatim as filler material for Utah surveyors in your newsletter.

Yours truly,
James Warren Andrews, PLS
E.M. (Engineer of Mines, CSM)
CO PLS (School of Hard Knocks)
M.A. History (University of Colorado)

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CCPS

Greetings CCPS members and *Side Shots* readers. The big news is that the Colorado Survey Conference is all wrapped up and so is the first quarter of 2016. The conference was a success and attendance was up from years past. The CCPS was delighted to see the improved attendance and added interest in our profession. I would also like to take some time to thank the CCPS Officers and Directors that have been serving the last couple of years and help make the CCPS and our annual PLSC conference so successful.

If you happen to see these folks at work or around town please let them know that you appreciate the extra time and effort that they take out of their busy schedules to make our organization successful.

President: David Kuxhausen, PLS

Vice President: Kevin Kucharczyk, PLS

Secretary: Mark Wilson, PLS

Treasurer: Aaron Willis, PLS

Directors: Devon Arnold, PLS; Brian Socia, PLS;
Anthony Perazzo, PLS; Shawn Clarke, PLS;
Robert Boehm, PLS; Scott Thom, PLS;
(one vacancy)

As you can see, there is still a single opening on the board for another enthusiastic member. If you or someone you know is interested please don't hesitate to reach out to me directly.

Some of you may have noticed that some of our general meetings will no longer be taking place at the Aurora Doubletree Hotel. We have observed a significant drop in attendance at this location and will be moving all of the general meetings to the Golden, CO location until we can identify a suitable venue to supplant the Aurora Doubletree. We understand that this may create some difficulty for some of our members that live in the Southeast area, including myself. For that we apologize and will be attempting to secure a location that is more centrally located for ease of access to more of our valued members. In the meantime, the CCPS BOD is working on a venue for this summer's 2nd annual Surveyor's Social where we can all get together again, enjoy some food and drinks, and engage in some meaningful conversation about our beloved profession. Stay on the lookout for our email announcements!

David J. Kuxhausen, PLS
CCPS President

NC-PLSC

The Northern Chapter met at King in January in Windsor where I lead a presentation and discussion on the new 2016 ALTA standards. We met in February at Tait with Brian Dennis presenting the growth and outreach opportunities anticipated with GPS Day and ways we can contribute as individuals and as a chapter.

We did not meet in March since many of our members were attending the excellent Surveyor's Summit presentations. It was an inspiring 3 days. Kayce Keane did an incredible job shepherding us through the whole process and the event went very smoothly. I was very

impressed with King Surveyors, CDOT and Denver Water all sending 20+ attendees to the event. That shows a real commitment to education. Also notable was the number of younger surveyors in attendance. Or maybe I am now old enough that everyone is starting to look young.

April saw us at the Loveland Chamber for a presentation by the extremely well-prepared Joyce Young and Christy Thomas from DORA. They spoke to us about the application process for the LSI and the PLS exams. We have posted their handout on the northern chapter website. They will be incorporating a few updates and will make the presentation available on the DORA site shortly as well. Kevin Bowman, our secretary-treasurer, proposed this topic as a good outreach opportunity to provide a service to younger surveyors, and judging from the turnout, he was right on the mark.

The programs have been informative and well attended. The only issue we've had is that we haven't made quorum since the non-business holiday dinner meeting. Because of this we will be conducting e-mail voting to ratify our budget and to vote for next year's PLSC Northern Chapter leadership. We need to re-structure our term expiration dates so we have a more staggered term since some overlap in tenure would be beneficial.

I anticipate that we will continue to offer great programming, but in order to do that we need volunteers to step forward and lead. Our chapter is small and many of us have volunteered in many roles over the years and we have some great new members who have stepped up and thrown themselves into the group, bringing new ideas and enthusiasm. Please consider contributing what you can so we can continue to serve the surveying community in Northern Colorado. If you are interested in serving as President, President-Elect, or as a Director, please contact Kevin Bowman so he can add your name to the ballot. If you know someone who would be a great fit for one of the above roles, please nominate him or her.

Laine Landau
President, NC-PLSC

NW 1/4 CLS

The NW1/4 met on March 16th, 2016 at the Craig Clarion Inn and one could not have wished for a finer group of characters. After the usual run through of business and Treasurer's report, we got into the four main items of interest for the evening: Commercial drones, County Surveyor status, the Base station and Mesa County Extended Network, and surveying in British Columbia.

The subject of commercial drones came up as to regulation by the FAA. There is a lot of new and evolving information on this matter and there were two local County Surveyors (Moffat and Rio Blanco) that were getting entirely different answers from their attorneys and technical advisors. It appears that most government entities and even private companies are using an exemption process as opposed to having a licensed pilot operating the drone. The key seems to be using

the drone “in house”- not selling whatever product is produced to a third party. However, even on this matter, there is not clarity and consistency from the FAA. A week after the NW1/4 meeting, I bumped into a photographer using a drone for commercial real estate purposes near the base of the Steamboat Ski Area. He was using an exemption and said he had clearly stated to the FAA that he was selling the photography to other parties. He also indicated he had looked at the topographic software and hardware that could be attached to the drone but had ruled them out at the moment due to cost. I didn't even get into the surveying licensure issues that could be raised, but I guarantee you that it will become a major issue shortly. Producing maps that show contours and property lines is clearly surveying and defined as such by Statue and state regulations, but this gentleman had no inkling of that fact.

We were a few weeks ahead of the current situation with the County Surveyors. Three present members, Peter Epp, Leif Joy and Tom Effinger, are the respective County Surveyors of Moffat, Rio Blanco and Routt Counties. They had attended the Colorado Summit conference in early March and left with an unclear picture of the future status of the County Surveyor. Then, low and behold, a few weeks later, the bill to abolish County Surveyors is reintroduced in the Legislature. The budgets for County Surveyors in all three local Counties is minimal- \$3,500 to perhaps \$10,000 if you count health insurance- so it is nothing in the overall County budgets. (\$87 million for Moffat County including the Memorial Hospital) There was consensus that surveying and its benefits are poorly understood by the general public, thus it becomes an easy target for a Senator or State Rep attempting to “save” the public money. In reality, the money is almost a nonexistent issue.

The third topic was the radio broadcasting off of the Steamboat Base. Many local surveyors are using Mi-Fi's and the internet to create a virtual base and thus the base radio broadcast is mostly irrelevant to them. It was decided to leave the Base radio on for now as there is no downside to it.

Lastly, surveying in British Columbia was discussed as a topic as I had recently visited the provincial capitol there, Victoria, and spoken at length with BC Land Title and Survey. Essentially, all the land title and original survey records for the entire province are housed in one building. The system used to be part of the provincial government, but was privatized about ten years ago. There are wonderful original color maps from the 1850's of the original townsites of Victoria and Vancouver in mint condition. They are in an atmospherically controlled room and covered with a plastic film. British Columbia also has nine different sectionalized survey systems, which now have all been converted to meters! Perhaps we should appreciate the relative simplicity of our own sectionalized survey system...

Brian T. Kelly, PLS
President NW ¼ Chapter

SC-PLS

The 2016 Southern Chapter annual meeting in January was a great success; the board of directors planned out the year, and seated the new directors and officers. A special welcome to Steve Rutzen our newest director, and congratulations to the new officers. Don Hulsey (Pres.), Spencer Barron (VP), Mark Johannes (Sec.), Dan Hanten (Treas.), Brian Dennis (Dir.), Jon Tessin (Dir.), Dennis Craig (Dir.), Joe Alessi (Dir.), Steve Rutzen (Dir.), and Steve Parker (President Emeritus). Check out the Southern Chapter 2016 board of directors on our *The Board* webpage.

Happy New Year!!! Our February members meeting was opened with an informative presentation from GeoShack. The remainder of the meeting was presented by Brian Dennis. Brian gave an excellent presentation on the 2016 ALTA/NSPS Standards of Survey. The discussion covered the benefits of the new standards with regard to the surveyor, and the changes to the way the ALTA surveys are completed. Many great questions were asked and answered, thank you Brian. The Rocky Mountain Surveyors Summit was a complete success! The Southern Chapter sponsored the technical track this year, and we were blessed with the likes of Jan Van Sickle, Pam Fromhertz, Gaby Neunzert, and Warren Geissler. *American Surveyor Magazine* donated an 1862 map of Colorado, which we framed and gave away together with a Leica Bluetooth Disto. More than 50 surveyors competed in the pacing and distance estimation contest. With Dennis Moulant, our keynote, and Tony Cavell, NSPS President elect as our guest speaker, I'd say this was the best conference yet. For more details and to get involved with southern chapter events, check us out at: www.scpls.net

Don R. Hulsey, PLS
SCPLS President

SWC- PLSC

The SW Chapter held its first meeting of 2016 on March 15th at the Durango Rec Center. Our featured speaker was Mike Boeckman with the BLM. Mike was very generous in donating his time and expertise to present a couple of recently completed surveys in our area that have resulted in decisions related to acceptance of local control and bona fide rights. This topic always generates great discussions and the surveyors in this area are very appreciative of Mike's hard work and willingness to share his experiences and knowledge.

We also distributed the 2015 *Right-of-ways and Easements* book to members. A sincere thank you goes out to Paul Bacus for his efforts in putting this book as well as the 2016 Field Companion together. Having this concise and very relevant information available in this format is most appreciated.

The La Plata County surveyor, Steve McCormack gave the chapter an update on the collaboration between the Clerk and Records office and the Center for Southwest Studies at Fort Lewis College to house the original copies of plats and maps. Most of these

CHAPTER NEWS

documents have been digitized and are available on line, and now there is a safe and accessible location for viewing these original documents.

Chapter members Dave Seiler and Parker Newby gave everyone an update from the 2016 Surveyor Summit and the Chapter Summit. Thanks to JB Guyton for facilitating the meeting and generating collaboration between the chapters. Information on membership and scholarship availability was also distributed to all in attendance.

Our next chapter meeting will be June 21st. An email with details on speaker and location is forthcoming.

Parker S. Newby, P.L.S.
President – PLSC SW Chapter

WCLS

The regularly scheduled March meeting was held on Wednesday the 9th with an attendance of 24 members. Our special guest speaker was Jamie Beard, Assistant City Attorney for Grand Junction. Jamie spoke on “Canals, Ditches and Why Ownership Matters”. As a special twist to our meeting, an invitation was sent to all local Professional Engineers involved in the Development

process as the canal and ditch issues are of concern to them also.

We have set a date for a Chapter Summit meeting here in Grand Junction for Friday, August 19, 2016. Arrangements are being made at a local Hampton Inn for guest rooms and an evening meeting room. A catered dinner will be available for all attendees. The following day is the beginning of the Palisade Peach Festival for those wishing to stay the weekend. The Colorado National Monument is only 10 minutes away along with many, many other outdoor attractions. More news will be posted as the Summit draws nearer.

Members of WCLS will be in attendance to present awards for the Trig Star participants at Central High School on April 27th. WCLS is a large supporter of the Trig Star program here in Mesa County.

Officers from WCLS will be speaking to staff members of Colorado Mesa University in their discussions of a possible Land Survey program tied to their new Engineering program. More will follow on this exciting news.

Peter T. Krick, PLS
President, WCLS

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