

August 2013

SIDE SHOTS

Professional Land Surveyors of Colorado

Volume 44, Issue 3



Signing of SB 13-161 at the State Capitol • See page 5

Prst std
U.S. Postage
PAID
Denver, CO
Permit No. 1222

Becky Roland
Executive Director
PLSC, Inc
PO Box 460022
Denver, CO 80246



IXON
Mfg. & Supply Co.

www.hixonmfg.com

SALES - SERVICE - RENTAL

TWO CONVENIENT RETAIL LOCATIONS

**SURVEY, CONSTRUCTION, AND ENGINEERING
INSTRUMENTS AND SUPPLIES**

**LARGEST GNSS RTK REFERENCE
NETWORK IN COLORADO AND WYOMING**

LOCAL SUPPORT, TRAINING, AND SERVICE

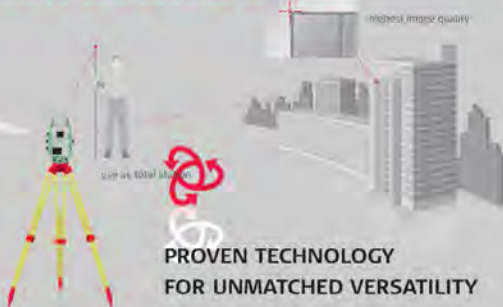
24/7 WEB STORE - www.hixonmfg.com

NEW!

MS50 MultiStation – The **new** **dimension** in measuring technology

You only get a moment to make the right decision. So ultimate performance and absolute reliability are critical. This requires not only intuition, but also intelligent technology you can rely on. For the first time, the Leica Nova MS50 combines every significant measuring technology in one device and opens the doors to a fascinating new dimension of the geospatial world. All functions, including precision 3D scanning, extensive and precise total station capabilities, digital imagery and GNSS connectivity are now brought together in the Leica Nova MultiStation. A revolutionary solution with advanced measuring technology that provides unchallenged accuracy and quality, yet is easy to use for an unprecedented range of applications.

The capabilities of the Leica Nova MultiStation are truly comprehensive and second to none.



Leica
Geosystems

The Leica Nova MS50 integrates 3D point cloud measurements into a regular survey workflow. This lets you collect and visualise your topographic survey data together with detailed high-precision scans. Save time by checking your data for integrity and relevance and avoid costly reworking or returns to the field. Benefit from better decisions with richer and more detailed data.

The Leica Nova MS50 provides proven total station functionality with superior sensor integration for highest precision, performance and full automation of measurement procedures. Together with the benefits of GNSS connectivity, the Leica Nova MS50 offers complete versatility by delivering reliable results wherever and whenever you need them.

The Leica Nova MS50 features an overview camera and a telescope camera with 30x magnification and autofocus. State-of-the-art image processing technology delivers live fluid video streaming of highest image quality. The imaging capabilities of the Leica Nova MS50 open up new opportunities of operating the MultiStation in an almost infinite range of applications.



FORT COLLINS

1001 SMITHFIELD DR
FORT COLLINS, CO 80524
970.482.0111 800.762.5252

www.hixonmfg.com



DENVER

8775 E ORCHARD RD, #807
GREENWOOD VILLAGE, CO 80111
303.694.0012 800.475.3422



**PROFESSIONAL LAND SURVEYORS
OF COLORADO, INC.**

AFFILIATE—NATIONAL SOCIETY OF
PROFESSIONAL SURVEYORS
MEMBER—COLORADO ENGINEERING COUNCIL
MEMBER—WESTERN FEDERATION OF
PROFESSIONAL SURVEYORS

OFFICERS (2013)

ROGER NELSON

President

2450 South Peoria Street . Aurora, Colorado 80014
O: (303) 353-3916

MICHEAL BOUCHARD

Vice President

4755 Forge Road, Suite 150 . Colorado Springs, CO 80907
O: (719) 590-9194

TERRY MAW

Secretary/Treasurer

8055 E. Tufts Avenue, Suite 850 . Denver, CO 80237
O: (719) 590-9194

BECKY ROLAND

Executive Director

PO Box 460022 . Denver, CO 80246
Phoenix AMC O: (303) 551-3266 F: (720) 230-4846

**2013 PLSC CHAPTER
ORGANIZATION**

CENTRAL COLORADO PROFESSIONAL SURVEYORS

President: Chris Raml

Vice President, David Kuxhausen;

Secretary, Mark Wilson; Treasurer, Aaron Willis

Directors: Shawn Clarke, George Robinson, John Wilhelm,
Kevin Kucharczyk, Terry Pickering, Ken Baker, Tony Perazzo

NORTHERN CHAPTER - PLSC, INC.

President: Kayce Wohlman

President-elect: Laine Landau; Secretary/Treasurer, Rob Hintz

Directors: Paul Bacus, Bob Edmonds, Steve Varriano, Douglas Ritter
President Emeritus: Ron Perkins

**NORTHWEST 1/4 COLORADO
LAND SURVEYORS**

President: Brian T. Kelly

Vice President, William Whelan; Secretary/Treasurer, Jeff Gustafson;

Gordon Dowling, Immediate Past President and Director

Directors: Thomas H. Effinger, Skidge Moon, Walter Magill,
Lloyd Powers, Peter Epp

**SOUTHERN COLORADO PROFESSIONAL
LAND SURVEYORS**

President: Joe Alessi

Vice President: Steve Parker; Secretary: Bill Brooks;

Treasurer: Dan Hanten

Directors: Nathan Lira, Jon Tessin, Steve McAnally,
Lyle Bissegger, Don Hulsey

SOUTHWESTERN CHAPTER - PLSC, INC.

President: Joshua Casselberry

Vice President, Robert L. Trudeau; Secretary, Parker Newby
Treasurer, Ed Young

WESTERN COLORADO LAND SURVEYORS

President: Richard Bullen

Vice President: Jonathan Kobylarz; Sec'y-Treas.: Brian Bowker

Directors: Leslie Doehling, Patrick Green, Scott Thompson,
Peter Krick, Tom Sylvester, Ben Elliott, Mark Wagner

COLORADO SPATIAL REFERENCE NETWORK

President: Jan Sterling

Vice President, Eric Carson; Secretary, (vacant); Treasurer, Chris Duda

Directors: Jon Doty, Larry Rector, Harold Schuch,
Kayce Wohlman, Brian Dennis

SIDE SHOTS

AUGUST JOURNAL 2013

VOLUME 44

NUMBER 3

■ President's Letter	4
■ From the Editor	5
■ Geospatial Education and Research Courses at University of Colorado – Denver	7
■ Survey Interns	8
■ Control Points #21	9
■ Rule of the Month	10
■ Sunset	11
■ Stapleton a New Product by City and County of Denver	12
■ State Board Update	14
■ BLM Cadastral Survey Letter	15
■ GPS Day, 2013	16
■ In Memoriam	18
■ PLSC Board of Directors Meeting Agenda	19
■ Chapter News	23
■ Sustaining Members	25

*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.*

Roger Nelson
President

Micheal Bouchard
Vice President

For Editorial Correspondence, contact:

John B. Guyton

Editor: Side Shots

5385 Centennial Trail, Boulder, CO 80303
303-443-7001 • jguyton@flatsurv.com

*This publication is not copyrighted and articles may be reprinted with due credit.
Statements made and opinions expressed are from the contributors and do not necessarily
express the official views of the Professional Land Surveyors of Colorado, Inc.
Deadlines for editorials, articles, pictures and advertising are January 1, April 1,
July 1 and October 1. All material received after the current deadline will appear
in the next issue of Side Shots.*

*We would like to invite anyone who is interested to advertise in Side Shots.
Do you have something you want to sell, trade or buy? Why not use Side Shots for your
next ad? We can also reproduce business cards for advertising. Ad space reservation must be arranged
with Becky Roland, PO Box 460022, Denver, CO 80246; 303-551-3266.
(Deadlines: January 1, April 1, July 1 and October 1).*

Current Advertising Rates:

*Business card size or less - Member \$25.00; Non-member \$30.00
One-Half Page - Member \$115.00; Non-member \$150.00
Full Page - Member \$225.00; Non-member \$300.00
Color advertisements — add 33 percent*



PROFESSIONAL LAND SURVEYORS OF COLORADO, INC.

P.O. Box 704 Conifer, CO. 80433

AFFILIATE – NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS
MEMBER- WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

OFFICERS (2011-2012)

MICHEAL BOUCHARD
VICE PRESIDENT
O: (719) 590-9194
mbouchard@f-w.com

TOM ADAMS
PAST PRESIDENT
O: (719) 546-5454
tom.adams@plsc.net

ROGER NELSON
PRESIDENT
O: (303) 353-3916
roger.nelson@merrick.com

TERRY MAW
SECRETARY/
TREASURER
O: (719) 590-9194
tmaw@f-w.com

BECKY ROLAND
EXECUTIVE DIRECTOR
O: (303) 551-3266
broland@plsc.net

DIRECTORS (2011-2014)

TODD BEERS
O: (720) 225-4646

PETER KRICK
O: (970) 256-4003

WILLIAM BUNTROCK
O: (303) 829-4047

PARKER NEWBY
O: (970) 247-1705

DIRECTORS (2013-2016)

KAYCE WOHLMAN
O: (303) 443-3282

LEIF JOY
O: (970) 878-5292

PATRICK GREEN
O: (970) 245-4099

ALAN BLAIR
O: (303) 808-0981

WFPS DELEGATES (2013-2014)

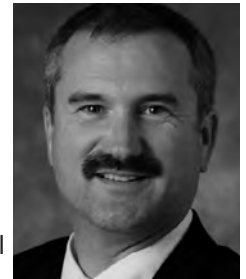
JOHN B. GUYTON
O: (303) 443-7001

MICHEAL BOUCHARD
O: (719) 590-9194

NSPS GOVERNOR (2013-2014)

WARREN D. WARD
O: (970) 725-3347

I would like to take this opportunity to provide an update of some PLSC accomplishments. First we have migrated to a new website design thanks to Brian Dennis and Becky Roland for their efforts to accomplish this task. The new website is organized in a manner we believe will make navigation more intuitive so I encourage you to visit <http://www.plsc.net/> to see the progress. Should you have any website request or suggestions please contact Becky Roland or Brian Dennis. We do appreciate feedback and will work to meet our membership's request. Second, we have made headway with the home that Bob Stollard willed to the PLSC. Becky has secured the deed and it has been signed and recorded. The next steps are to meet with Section 8 Housing and the current tenants to discuss the PLSC's intentions to sell the property. The PLSC Board discussed the requirements of being a landlord and decided that the maintenance and effort outweigh the reward. In addition, we will be securing a real estate agent to place the home on the market. It is PLSC's intention to find a buyer that will continue the Section 8 status and allow the current tenant to remain in the home. Should we not be able to meet this criteria then we will sell the home on the open market. The funds generated from the sale will be placed in the PLSC's general operating account for use as reserves and for special projects. Credit will be given in Bob Stollard's name should a special project be funded from this money. Thirdly, the PLSC provided participating funds for two Colorado teachers to attend the West-Fed sponsored TWIST program. Be sure to pass along a big thanks to Mike Bouchard who initiated this effort.



The PLSC education committee is in full swing planning our next Surveyors' Summit. Several key speakers have been identified and will be secured in the coming months. Once the tracts and speakers have been committed, periodic email blasts advertising the conference will be sent out. We hope that early notice and reminders will provide an opportunity for regular attendees to invite fellow surveyors to this education opportunity.

The Legislative committee has been meeting to digest and act upon recommendations from this year's Surveyor Summit open forum discussion regarding Improvement Location Certificates (ILC's). Look for updates in the coming issues of *Side Shots* that will define PLSC's path forward. The culmination of working with representatives from the Architects and Engineers is that Governor Hickenlooper signed Senate Bill 13-161. Alan Blair has an article in this issue of *Side Shots* that summarizes the results of the new law.

The PLSC membership committee is working with each chapter to promote a membership drive. The current list of all Colorado licensed professional land surveyors and land surveyor interns has been provided to each chapter along with a zip code map for use in determining the geographic extent that mailings should include. The membership committee is also working to develop a Colorado state map that depicts the general geographic coverage for each PLSC chapter. We anticipate posting this

continued on page 5

DEDICATED TO THE IMPROVEMENT OF LAND SURVEYING EDUCATION AND PRACTICE.

FROM THE EDITOR



Our cover this month is a good example of how the PLSC is working with Colorado's professional architect and engineer communities to insure that surveyors are well represented in the legislature and in the formation of State Board rules and regulations. Paul Bacus, Roger Nelson (pictured) and Alan

Blair of the Legislative Committee represented the PLSC well throughout the long ordeal of the passage of SB 13-161. Congratulations and thanks to you all.

Roger mentioned the newly designed website in his letter, and the results are impressive. Any PLSC information you might need is much easier to find, and the overall site is nicely displayed. It is still evolving and improving; I would encourage all of our readers to have a look at it on a regular basis.

There is an exciting, and late-breaking addition to this issue from Dr. Jan Van Sickle, an announcement of a series of geospatial education courses at the University of Colorado – Denver. It includes links to web pages describing the credit and non-credit course details. This was, at least in part, due to a request from Jan for letters of support, which members of the Board were very eager to supply. After so many Colorado educational programs have vanished in recent years, it is very encouraging to see a new one start up. More are still needed, and the work toward that continues, but I was thrilled to see this new development. Please give it your full attention and support, and spread the word to anyone you think would be interested.



Our members came through with another collection of interesting articles for this issue. Roger Nelson wrote about the hiring of summer interns. Warren Andrews wrote about the shifting geographical center of the contiguous United States. Earl Henderson continues his series with a Rule of the Month. Tony Lopez with the City and County of Denver wrote about the formation of the new Stapleton development. Joyce Young, the Program Director for DORA provided a State Board Update. Jan Sterling gave us a collection of photos from the annual GPS Day in Aurora. Terry Maw provided us with BOD minutes from the May 15th meeting, and all seven chapters contributed their latest news. My thanks to you all – you are what make *Side Shots* so enjoyable to so many. Do YOU have a good idea for an article? I'll bet you do. Get in touch with me ASAP.

JB Guyton
Editor, *Side Shots*

President's Letter *cont.*

map on the website so that those interested in membership can easily determine their nearest chapter.

I encourage each Chapter to nominate a member for the PLSC web page monthly member spotlight. A brief description of the member's general information, contributions, and a photo is all that is required for submittal to Becky Roland. This section of the web site will be updated monthly once we have a backlog of submittals.

The PLSC Board has identified/reaffirmed the following goals for 2013-2014:

- Maintain financial stability through monitor of budget and expenditures.


- Encourage and assist with all chapter membership drive.
- Support and participate with public outreach.
 - Promotion of CSRN GPS Day
 - Promotion of the Trig Star program
 - Support of the TWIST program

In closing, be safe out there and may your projects be rewarding and profitable.

Sincerely,
Roger D. Nelson, PLS, CFedS

On the Cover:

(Left to Right) Paul Bacus, PLS – Northern Chapter representative, House Representative Millie Hamner, Governor John Hickenlooper, and PLSC President Roger Nelson pose after the signing of SB 13-161 at the State Capitol, 05/28/2013. The other sponsor in the house was Representative Randy Fischer and the Senate sponsor was Senator Rollie Heath. This bill left the Board Rules for surveying unchanged. See the State Board Update and the article "Sunset" in this issue for details.



OUT HERE, YOU DON'T JUST MEASURE BOUNDARIES. YOU PUSH THEM.

When you're in the field, some days are simple and straightforward. Then, there are the other days: when temperatures are so hot and the air is so thick, you can barely breathe. Days when you're four hours from civilization and you just lost your signal. It's for times like these that Trimble designed the all-new Trimble R10 GNSS receiver. It's lighter and better balanced for less fatigue on long days. The Trimble R10 offers a number of radical new innovations—including Trimble SurePoint™ and Trimble xFill™ technologies—that make getting measurements faster and easier, no matter the conditions. Because extreme working conditions require extreme innovations.

See it yourself at trimble.com/R10showcase.



© 2013, Trimble Navigation Limited. All rights reserved. Trimble, the Globe & Triangle Logo, xFill, and SurePoint are trademarks of Trimble Navigation Limited, registered in the United States Patent and Trademark Office and/or in other countries. All other trademarks are the property of their respective owners.

**FOR MORE
INFORMATION
CALL YOUR
TRIMBLE DEALER**

Frontier Precision
Denver, CO
800-652-1522

Vectors Inc
Denver, CO
303-283-0343

Geospatial Education and Research Courses at University of Colorado – Denver

By Jan Van Sickle

I want to thank you very much indeed for responding to the request for letters of support for the Geospatial Education and Research in the College of Engineering and Applied Science at University of Colorado Denver. You have made a difference. The program for has been given the green light and a start has been made. Here it is. These are the courses that will be on offer online starting August 19, 2013 and they will also be taught in the classroom at this schedule.

GPS/GNSS	CVEN 5800	Friday 3.30pm - 6.15 pm
Practical High Definition Surveying (HDS) LiDAR for Engineers and Architects	CVEN 5800	Tuesday: 1.00pm-3.45pm
Intro to Building Information Modeling (BIM)	CVEN 5800-004	Tuesday: 4.00pm-6.45pm
Introduction to GEOINT	CVEN 5800	Wednesday: 4.00pm-6.45pm
GIS Spatial Database Development	CVEN 5382	Tues/Thurs: 6.30pm-7.45pm
GIS Laboratory	CVEN 5386	Saturday: 9:00am-2:00pm
Geomatics for GIS	CVEN 5800-015	Thursday 5.00pm - 9pm

These courses will be taught by

Dr. Jan Van Sickle, Van Sickle LLC
http://www.linkedin.com/profile/view?id=3853618&trk=tab_pro

Dr. Jacek Grodecki, Senior Director, Research and Development at GeoEye
http://www.linkedin.com/profile/view?id=14575232&locale=en_US&trk=tyah2

Dr. Apostol Panayotov, University of Colorado Denver
http://www.linkedin.com/profile/view?id=11751179&locale=en_US&trk=tyah

Dr. Delmar (Andy) Anderson, Independent Consultant at Del Consulting
http://www.linkedin.com/profile/view?id=251678973&locale=en_US&trk=tyah

Thank you again.

If you, or anyone you know, wants to sign up for these classes here are the links to credit and non-credit admissions

credit: <http://www.ucdenver.edu/admissions/non-degree/Pages/default.aspx>

non-Credit: <http://www.ucdenver.edu/academics/colleges/Engineering/discover/ContinuingEngineeringEducation-Program/Documents/CEEPRegForm2137.pdf>

Any questions can be directed to Ms. Heidi Utt, Academic Services Program Manager Continuing Engineering Education Program University of Colorado Denver PO Box 173364, Campus Box #115 Denver, Colo. 80217-3364

Office: North Classroom Bldg. Room #3024
Phone: 303-556-4907
Fax: 303-556-6688
Cell: 720-935-3057
Email: Heidi.Utt@UCDenver.edu

Survey Interns

By Roger Nelson, PLS

Have you ever considered hiring a survey intern? Who benefits from hiring a survey intern over the summer months? First, this can be a way of balancing the typical rise in summer demand for field crews with the requirement of increasing labor force. When typical survey crew demands begin to diminish it is time for the student surveyor to return to college to resume their class work. The availability of interns coincides with the seasonal survey demand and keeps survey companies from experiencing staffing up and then having to layoff when demand decreases. Second, this is an opportunity for employers to "test drive" potential employees. If a good fit exist between an intern and an employer, then arrangements can be made to secure future employment of the intern. Third, hiring interns encourages surveyor education and provides real world context for interns to bring back to the classroom and share with fellow students, as well as being an opportunity for professional land surveyors to give back to the community.

The intern benefits from gaining real survey experience for inclusion on their resume and has an opportunity to reconcile reality against theoretical knowledge.

Interns are also able to replenish much needed funds for the coming college semesters. As mentioned above, the intern also gets to shop for potential long term employment and begin developing their surveyor network.

How do you begin a survey summer intern program? First, contact a college early that has a survey program and let them know of your interest in hiring a student over the summer. The appropriate contact can be the placement office or the head of the survey department. I recommend conducting multiple phone interviews with several potential interns to determine the right fit for your business. Once the individual has been identified and terms have been agreed to, it is desirable to assist the intern with finding reasonable lodging. An existing employee could offer lodging which would benefit that existing employee with rental income over the summer or arrangements can be made with extended stay suites local to your business. There is a little effort required to successfully implement an intern program, but the rewards are well worth the effort investment to smooth the seasonal labor demands.

COMM.TECH
Increasing your bottom line
with customized drafting and design software solutions since 1994

products

- AutoCAD LT
- AutoCAD
- Map 3D
- Civil 3D
- Infrastructure Design Suites
- Infrastructure Map Server
- Raster Design
- Design Review
- Subscription

services

- State of the art training facility
- Implementation & customization
- Workflow analysis consulting
- Styles & standards set-up
- License activation support
- License compliance
- Technical support
- Pilot projects
- Transition assistance
- On-site consulting
- Government Specialist



303.530.4976 | www.ctcivl.com

5398 Manhattan Circle
Boulder, CO 80303

Autodesk®
Silver Partner
Architecture, Engineering & Construction
Authorized Government Partner

Control Points – Number 21

By Warren Andrews, PLS

The Center

Perhaps you have wondered, where is the center of the United States? But there has been more than one. There was a center of the U.S. of the thirteen original states. That center then changed each time an additional state was added to the Union. In 1861 that center changed radically when the Confederate States seceded from the Union but came back to the same spot in 1865. In 1912 it changed again with the addition of New Mexico and Arizona as states. That point still holds today as the Geographic Center of the Contiguous United States. But guess what happened again in 1959? The states of Alaska and Hawaii were added to the U.S. and the center changed again. If Puerto Rico ever becomes the 51st state or maybe Guam, the center would change again.

Where are these centers? They're harder to find than the four corners monument (in the S.W. corner of Colorado) but they do exist. The 1912 to 1959 center monument is near Lebanon, Kansas, and has a large cairn and brass plaque as shown in the illustration marked, "The Geographic Center of the United States."

Lat. 39°50'[N] Long. 98°35'[W]
NE ¼ - SE ¼ - S32 – T2S – R11W"

The 1959 to present center is some 21 miles north of Belle Fourche, Butte County, South Dakota, and is marked with a large flat granite marker (flush with the ground like the four corners marker) with flagpole and flag. The interesting part about locating the Lebanon, Kansas center was using the old draftsman's method for locating the center, or centroid, of an irregular area. A cardboard cutout was made of the 48 state area. Then the centroid was found by balancing the cardboard cutout on a point. The Coast and Geodetic Survey with their legendary precision said they could only guarantee the position within twenty miles.



In Belle Fourche, South Dakota



Plaque in Lebanon, Kansas

Images courtesy of Wikipedia.com

Rule of the Month

By Earl Henderson, PLS

What direction is “Northerly”? How many times have we read this in a description about property? Is it True North? State Plane Grid North? Magnetic North? Clap a 90° from sunset north? Is it parallel to the east section line? And how many degrees off of any of these definitions of north can you get before you’ve gone beyond the definition of “Northerly”? If these are the kinds of things your mind conjures up when you read the word “Northerly” or any other “...ly” word in a description, then you are most definitely heading in the wrong direction.

Here we go again. I’m going to say it again, and I may never stop saying it. We are, 99% of the time, retracement surveyors, so our duty is to find the best evidence of the location of the property line *as originally laid out*. Did you notice I didn’t say “surveyed”? There’s a very good possibility that if the word “Northerly” was used in a description that the line was NOT surveyed, at least not by a trained surveyor. But that does NOT make the original property line location any less valid. It may even have been clapped and paced. That’s okay. Don’t panic. Clapping and pacing is still a valid way of measuring today just like using a plane table is still valid, or a Gunter’s chain is still valid. We have more precise equipment available to us, and generally it’s more cost effective to use it, but it’s not a requirement. The important thing to remember is that the modern equipment is NOT more accurate, it’s only more precise. I believe that A. C. Mulford in his book *Boundaries and Landmarks* is the person first credited with the quote “...it is far more important to have a somewhat faulty measurement of the spot where the line truly exists than it is to have an extremely accurate measurement of the place where the line does not exist at all.” Mulford should have used the word precise instead of accurate, but hey, it was 1912.

I ran across another wonderful quote recently in a publication that was given to me by a colleague. It is from the case of *Johnson v. Westrick*, 200 Wis. 405 (1930). It is also still applicable today. In trying to deter-

mine a street ROW, which, by the way, is only another property line, the court stated, “It was held that the east line of the street was where the original surveyor placed it, *not where it should be* according to resurveys or subsequent surveys; that subsequent surveys are worse than useless; they only serve to confuse, unless they agree with the original survey.” (emphasis added) In the case of the “...ly” words, we must ask, who was the original surveyor? It may have been the property owners. That’s okay. They are allowed to do that. And that may be precisely why the “...ly” word was used because they didn’t know what the precise bearing was that they were measuring. But if they put monuments in the ground then those original monuments define those locations accurately, even if we measure them today as “too far off”. And remember, those monuments won’t look like yours and mine. They may be fence corners. They may be axles. They may even be a whiskey bottle. (How precise do you think those corners would be? :) But again, that’s okay. Those are all valid.

So let’s stop and think about this for a moment. If the description used a “...ly” word, then it doesn’t matter if it was surveyed by a trained land surveyor or by a father/son farmer duo for the son’s inheritance. In either case, the folks involved didn’t have a precise idea of what direction they were measuring. So how are we, as equipment savvy precise modern measurers going to ever determine that direction by using some mathematical methodology? It ain’t going to happen. And yet our duty is still to “follow in the footsteps” of whoever that was. How can we do that with a calculator/computer/data collector/total station/GPS unit that we paid \$150,000 for? Easy, lift your eyes up and away from the screen.

My suggestion is that when you first read a “...ly” word do what a friend of mine recently said to me, “Quit reading the description. Look up. Look around. And look for the property.” 90% of the time the definition of Northerly will be right in front of you.

Sunset

By Paul Bacus, PLS

Periodically (approximately every 12 years) in the State of Colorado our state government reviews regulated professions' statute laws. This gives the governing bodies and concerned groups a chance to review the statutes to determine if regulation should continue and to clarify and update our laws. In 2013 the rules specific to our profession underwent this sunset review and PLSC was extensively involved in this process. Some of the suggestions like allowing surveyors licensed in other states to solicit survey work in Colorado prior to becoming licensed here were successfully challenged by PLSC. PLSC's efforts included lobbying and testifying in front of two committee hearings.

One of DORA's objectives for this sunset review was to, where possible, standardize the administration of Architects, Engineers, and Surveyors professions. We have over the past few years started upon this path as we were known as Certificants, Registrants and licensees. If you have acquired a seal since 2004 the seal now refers to us as Licensed Land Surveyors instead of Registered. Further, the certificates that were issued when we were accepted by the board are no longer provided by the

board. Therefore during the sunset review the terms registration and certification and their variants have been replaced by the appropriate use of license.

Probably the most significant change was the modification of the ILC. Prior to this legislation there was a prohibition keeping the owner or buyer of a property from ordering an ILC. This has been removed and if the person who orders the ILC is not the owner or buyer, a copy shall be provided to the owner or buyer. The certification requirement has also been modified to specify not only for whom it was prepared, but, "This certificate is valid only for use by (individual or firm) and describes the parcel's appearance on (date)."

So sunset has ended once again. These laws came into effect on July 1, 2013 and will remain in effect until the next scheduled review when they expire on September 1, 2024. This does not mean that there are no further changes to be made. It has been requested that the Legislative Committee review the use and abuse of the ILC and come up with viable solutions which I can assure you is no small task. Stay tuned.



Friday • June 7, 2013

8 a.m.-5 p.m.

Saturday • June 8, 2013

8 a.m.-5 p.m.

Registration at

7:15 a.m. both days

Location:

Vallecito Room,
Fort Lewis College,
Durango, CO

CEU's and PDH's
are available

SWCPLSC Presents:

FOUR CORNERS SURVEY SEMINAR

Dennis J. Mouland, PLS

Lotted Sections

Milton Denny, PLS

The Art of Land Surveying

Professional Ethics for the Land Surveyor

History of Land Surveying

Pamela Fromhertz

Colorado State Geodetic Advisor at NGS, NOAA

Current NGS Topics

Alison Walls/Frontier Precision Inc.

Survey Field to Finish Trimble Access-TBC-Civil 3D

Geodesy & Geoids

What do you really know about Radio?

For more information and to register please visit www.plsc.net after May 1, 2013

Stapleton a New Product by City and County of Denver

By Tony Lopez, PLS

As a member of the Public Works Team and being one of the 5 employees that work for the City and County with the name Tony Lopez, I am the Tony that has been given the task of reviewing ALL Development at Stapleton, while representing the City Surveyor's Office, Right of Way Services. Other parts of Denver also have Development Review, but Stapleton is slightly more complicated. When Stapleton International Airport was to close and become a newly developed area, the FAA (Federal Aviation Administration) became involved, and because the land was originally obtained from the Federal Government (via the Rocky Mountain Arsenal), a possibility existed that said land would revert back to the Government. The City was able to function around this stipulation by constructing DIA (Denver International Airport). FAA sanctions the fact that Stapleton is owned by the Aviation Department of the City and County of Denver, now with an office operating out of DIA.



Tony Lopez

Before any land can be developed it has to be deeded to the Stapleton Development Corporation (SDC) from the Aviation Department (also known as City and County of Denver). SDC then deeds it to Park Creek Metropolitan District (PCMD) for future streets or parks or to Forest City for future residential or retail development. Forest City has first right of refusal and can deed it to private developers.

My job is to review all legal descriptions that are associated with the deed transfers so DIA can feel comfortable with the sale. These deeds represent developments proposed and are called "takedowns." With portions of land now out of DIA's ownership, both Forest City and PCMD can propose creating a subdivision plat which will create lots, blocks, and tracts. The subdivision will have a legal description for my review, and will require that I am comfortable with all the surrounding plats, deeds or Stapleton property not yet deeded. Since the area is new, I will also need to supply street names which make sense and project our existing street name grid. When the subdivision plat is recorded, several site development reviews are submitted, which also have legal descriptions for review by me. At Stapleton another review process becomes necessary. Formerly called Residential Development Plan, and now called Site Development Plan, they are full-sized drawing sets which can be up to 50 sheets or even more.

All of the private alleys have either public sewers, both sanitary and storm, or private sewers. The City, per previous agreement, will need to obtain an easement

for said sewers and PNEE's (Permanent Non Exclusive Easement) for private sewers, again prompting the need for more legal description reviews.

All of the Streets created by subdivision plat are actually tracts with predetermined street names and labeled as Future Right of Way. Park Creek Metropolitan District will build the streets after platting and will build all infrastructure relating to said streets provided that the takedown by deeds gave the property to PCMD.

As part of the review for all parcels, subdivisions, site plans, site developments, easements and any recorded documents, line work must be drawn and checked as it is being drawn. I have presently updated on a day to day basis all that is submitted and have an AutoCAD drawing called "Stapleton Master Map October 2012." This drawing is saved every other month and named with a month and year. Presently this drawing has 736 layers, and does not have the line work geometry for the internal lot lines and street lines. There is a separate method for checking all the line work internally and is either done by the new template application created by our staff or by a state plane application originally called Starter Kit 2011. The purpose of creating all line work and checking it is to provide a product to GIS, which is now being taken from the Starter Kit, adjusted to the new application called Parcel Fabric and exported to our GIS map being used by all. My responsibilities for internal subdivision line work approval did not start until about Stapleton Filing No. 23, and is stored and created in our shared drive on the K: drive.

Eventually the tracts will need to be accepted by the Public Works Department as properly built streets and Park Creek Metropolitan District will deed them back to the City and now will require more legal description review and will also need to be dedicated by resolution as Public Right of Way.

Stapleton was predicted to take about 20 years to build, and being as it is now 2013, it appears that the prediction is close.



Does Your Software Work FOR You? Or AGAINST You?



hardware



software and subscription



implementation and lost productivity

Why Not Consider Carlson Software ?

- Receive FREE technical support from Carlson's home office - no subscription required
- Runs with any 2004-current AutoCAD®-based program OR with IntelliCAD®, a program that looks & acts just like AutoCAD
- Receive a FREE copy of IntelliCAD with every purchase and a FREE copy of Esri ArcMap when using Carlson with IntelliCAD
- Take advantage of the ever-expanding integration with Esri GIS solutions
- Carlson's data flow solutions can't be beat - from data collection, to mapping, to design and back to the field for construction
- Work with standard AutoCAD entities - No more proxy objects or saving for others who don't have the same version of Civil 3D®
- Upgrade your software or hardware when YOU are ready - Carlson with IntelliCAD can run on most off-the-shelf computers.
- Automate lot layout using area, frontage, setback & footprint - and your lots, labels & setbacks update when the road does!
- Update your surface model by sketching a new location for your contours.
- Easily design *AND GRADE* a network of roads in minutes—including fine grading intersections and cul-de-sacs - Yes, Easily!



That CAD Girl offers...

- Best prices on Carlson Software, SurvCE, Data Collection and GPS including Carlson upgrades and maintenance renewals
- Competitive upgrade pricing from Land Desktop®, Eagle Point®, Terra Model® or Civil 3D® - only \$2,500 for Civil Suite which includes Survey, Civil, Hydrology & GIS
- Pre-Employment skills evaluations
- CAD standards development & implementation
- Customized, online training for Carlson & Autodesk products

Carlson Self Study Manuals

Carlson Configure & CAD Settings

Getting Started with Points
For Carlson Survey & Civil

Field to Finish with Carlson Survey

Books can be purchased separately or as a bundle.
3 books provide approximately 10 hours of instruction

Introductory pricing through our Online Store

That CAD Girl

919.417.9351

www.thatcadgirl.com



CERTIFIED TRAINING CENTER
**CARLSON
COLLEGE**

State Board Update

By Joyce J. Young, Program Director

State Board of Licensure for Architects, Professional Engineers, and Professional Land Surveyors

As you know from the February 2013 issue of *Side Shots*, I am the new Program Director for the Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors (the Board).

Since assuming my new position I have had the opportunity to meet some of you at the 3rd Annual Rocky Mountain Surveyors Summit. At that Summit, I attended the panel discussion regarding Improvement Location Certificates. It was clear that the use of the ILC continues to be a significant issue for the surveying community, which then becomes an issue for the citizens of Colorado. It is my hope that this issue continues to be explored to address the proper use of the ILC.

We are in the beginning stages of a review of the Board Rules to address any changes needed as a result of the 2013 Sunset Review that took place in the 2013 legislative session. Upon initial review of the revisions, it does not appear that there will be a need for any chang-

es to the rules regarding surveying. You can sign up to receive notification of upcoming rulemaking activities at DORA Alerts here: <http://cdn.colorado.gov/cs/Satellite/DORA/CBON/DORA/1251628237984>

You can access the final draft revisions at www.colorado.gov by utilizing the "Search for a bill" feature. The Senate Bill number is SB13-161.

Please keep an eye out for the renewal postcards that will be sent out approximately 6 weeks before the October 31, 2013 expiration of your license. The Board newsletter will be released around the time of renewals as well.

I look forward to learning more about the surveying industry in the coming months and expect to continue to foster the practice of open communication between the PLS community and the Board.

You can email me at joyce.young@state.co.us or 303.894.7781 for questions or concerns.

Your deadlines ^{are} our deadlines



Custom orders your way ... when you need them.

When your name is on it, our name is behind it.

Berntsen delivers.

The professional's choice in survey products • www.berntsen.com • 877.686.8561



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Colorado State Office
2850 Youngfield Street
Lakewood, Colorado 80215-7210
www.co.blm.gov



CO-956
9655.2

June 25, 2013

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

Dear Mr. Guyton:

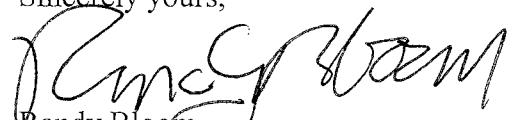
This letter is to inform you of official BLM cadastral surveys in Colorado that have been accepted from March 6, 2013, through June 6, 2013. These surveys were filed in the Public Room, Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215, and are available 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. 27 S.	R. 73 W.	Sixth	1410	Plat & Notes	03/06/13	2
Ts.39&40 N.	Rs. 12&13 E.	NMPM	1410	Plat & Notes	03/06/13	2
T. 48 N.	R. 6 E.	NMPM	1591	Plat & Notes	03/13/13	1
T. 34 N.	R. 9 W.	NMPM	1522	Plat & Notes	03/14/13	1
T. 6 N.	R. 97 W.	Sixth	1594	Plat & Notes	03/26/13	1
T. 47 N.	R. 3 W.	NMPM	1467	Plat & Notes	04/09/13	1
T. 47 N.	R. 4 W.	NMPM	1467	Plat & Notes	04/09/13	1
T. 4 N.	R. 79 W.	Sixth	1576	Plat & Notes	04/19/13	1
T. 12 S.	R. 90 W.	Sixth	1607	Suppl. Plat	05/07/13	1
T. 43 N.	R. 4 W.	NMPM	1517	Plat & Notes	05/07/13	1
T. 43 N.	R. 4 W.	NMPM	1554	Plat & Notes	05/07/13	1
T. 13 S.	R. 92 W.	Sixth	1489	Plat & Notes	05/16/13	1
T. 43 N.	R. 4 W.	NMPM	1608	Suppl. Plat	06/06/13	1

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

Sincerely yours,


Randy Bloom
Chief Cadastral Surveyor for Colorado

GPS Day, 2013

Utah Park, Aurora, Colorado – May 11, 2013

See the CSRN Chapter News in this issue for details
Photos courtesy of Jan Sterling, PLS



For Success in Today's Wild World, You Need to be Productive



FOCUS 30

The Spectra Precision FOCUS 30 is a robotic total station providing high speed, accuracy and precision in measurement.

Like a hungry bear locking onto the flash of a darting salmon, the FOCUS 30 latches onto the prism and won't let go. No matter the conditions, you can rely on the trusted and proven LockNGo™ tracking technology to keep you working productively all day long.

Combined with Spectra Precision Survey Pro field software, the FOCUS 30 robotic surveying system offers world-class field productivity. Packaged in a modern, sleek, and streamlined design, it is easy-to-use, affordable, and tough.

FOCUS 30: Simply Powerful

Frontier Precision, Inc.

5480 West 60th Avenue, Unit A
Arvada, Colorado 80003
Phone: +1.800.652.1522
Mel Philbrook, Rocky Mountain Region Manager
mel@frontierprecision.com
Visit us at: www.frontierprecision.com



Features

- Spectra Precision Survey Pro™ field software
- GeoLock™ GPS assist technology
- 2", 3", and 5" angle accuracy
- StepDrive™ motion technology
- LockNGo™ advanced tracking technology

©2013, Trimble Navigation Limited. All rights reserved. Spectra Precision is a Division of Trimble Navigation Limited. Spectra Precision is a trademark of Trimble Navigation Limited, registered in the United States Patent and Trademark office and in other countries. FOCUS, Survey Pro are trademarks of Spectra Precision. StepDrive, GeoLock and LockNGo are trademarks of Trimble Navigation Limited. All other trademarks are the property of their respective owners.



DISTANCE DELIVERY OF COURSES FOR

LAND SURVEYORS

Now it is possible to pursue or advance a career in land surveying via distance delivery.

- Select courses individually or as part of the degree completion program.
- Enroll year-around; take six months to complete a course.
- Take exams close to home or work.
- Communicate with your instructor by e-mail or telephone.

Twelve Self-Paced DVD Lecture Courses

SUR 1510-4	Surveying I
SUR 2520-4	Surveying II
SUR 2530-4	Route Surveying
SUR 2550-3	Surveying Computations
SUR 3100-3	Survey Data Adjustment/Analysis I
SUR 3150-2	Astronomy for Surveyors
SUR 3220-2	Real Property Descriptions
SUR 3300-3	Photogrammetry
SUR 3540-3	Boundary Law I
SUR 3700-3	Geodesy I
SUR 4510-3	Map Projections and Coordinate Systems
SUR 4540-3	Boundary Law II

On-line Course

COM 3615-3 Technical Writing for Surveyors and Engineers

For more information and registration visit our web site:
www.mscd.edu/surdd or send an email to mscd_surdd@mscd.edu
or call Extended Campus at **303-721-1313**.

In Memoriam James A. Simpson, PE PLS

We were saddened to hear of the passing of BLM riparian survey specialist and mentor to many, James A. Simpson.



Jim graduated from the University of New Mexico in 1950 with a bachelor of science in civil engineering. He held a U.S. mineral surveyor's license and surveyed many of the uranium claims in New Mexico as well as mineral claims in Oregon. In 1966, he earned his master's degree in civil engineering from Purdue University on a teaching fellowship and accepted a position at Oregon Technical Institute in Klamath Falls, Ore. In 1971, the Bureau of Land Management asked him to design a training program for Cadastral surveyors at the University of Portland, and in 1976 he was accepted for the new BLM position of specialist in riparian boundary surveys with nationwide responsibilities in water boundary determinations. In that position, he traveled extensively and testified in many court cases for the government. He is the author of many professional papers and publications, the last of which is the manual, "River and Lake Boundaries," which is held in high regard by his fellow surveyors. Jim drove with his wife from Kingman, AZ to Durango and presented a well-attended seminar at their 2007 Four Corners conference. His dedication to teaching was evident as he presented an 8-hour course at age 84.

PLSC Board of Directors Meeting Agenda

May 15, 2013, 4:00 p.m.

Call to Order: (Roger)

Recognition of PLSC Board Members and Officers:

Officers: Roger Nelson (Central), Mike Bouchard (VP - Southern), Terry Maw (Treasurer - Southern), and Becky Roland (Exec. Director).

Board: Todd Beers (Central), Alan Blair (Central), Bill Buntrock (Central), Patrick Green (Western), Leif Joy (NW1/4), Peter Krick (Western), Parker Newby (SW), and Kayce Wohlman (Northern).

Exofficio: Brian Dennis (CSRN)

Nonvoting: Warren Ward, Tom Adams (Past President), J.B. Guyton.

County Surveyors Representative: Patrick Green – Also Board Member

Present: Mike Bouchard, Terry Maw, Bill Buntrock, Patrick Green, Steve Parker, Peter Krick, Pamela Fromhertz, Leif Joy, JB Guyton, , Alan Blair, Becky Roland

Absent: Todd Beers, Parker Newby, Kayce Wohlman, Terry Maw

Quorum present (6 voting members)

Welcome of Guests: Pamela Fromhertz and Steve Parker

Additions, deletions and modifications to agenda: none.

Approval of Minutes from Previous meeting(s): (Terry Maw)

MOTION: To approve the Minutes (Joy). Seconded (Patrick)

2: 2013 Budget – Terry Maw & Becky Roland

3.2 –2013 Budget Status

Have consolidated two of the operating accounts at Wells Fargo. Treasurer Maw has recommended electronic transfers for all payments to avoid having to update the mailing address each year for Chapters. PLSC could also make this same arrangement for other vendors/individuals. As soon as a transfer is made, an email will be sent to the Chapter officers (President and Treasurer). PLSC would need the name of the bank, account number and routing number. Board consensus is to move forward. Becky will send a memo to each Chapter President and Treasurer requesting the information.

There are three investment accounts that do not have a current Board or Executive Director as a signer.

MOTION: To approve signers of the investment accounts to be the current President, Vice President, Treasurer and Executive Director. (Roger)

Seconded (Alan)

Approved unanimously

3.3 - Membership Drive Status update

John Wilhelm is finalizing the Central Chapter drive

3.4 – PLSC Membership Application – on website, on-line renewal. Status update

3: PLSC Website - Updates, Protocol, etc.

5.1 – Authorized Access – Currently Becky Roland. Status update

Becky to solicit Chapters on what pages they would like maintain on the PLSC website. Some Chapters might want to just maintain pages on PLSC's site and not maintain separate web pages (Central, Southern, CSRN)

5.2 – PLSC Articles of Incorporation – CSRN – Vote approved at membership meeting.

There are some items that we want posted that need to be provided to us, which are listed below:

One paragraph or less, descriptions of each PLSC committee describing its purpose and the chair name and contact for each committee.

Board member photos. Becky has suggested casual photos (family time or activity) to show personality versus formal corporate head shots.

Board member bios. I would prefer the bios used during the election process. Members should know who their representatives are and this is a good place for company marketing to keep the companies engaged. (Roger, Kayce, Patrick Green have submitted)

Submittals for Member Spotlight area. This will need to come from the Board initially to show a monthly change until we get the chapters to submit (JB, Paul Bacaus)

Current PLSC Constitution and Bylaws

Suggestions for an expanded "Mission" & "Purpose" Statement that is inviting and explains better the PLSC goals

2013 PLSC Goals – All Chapter Membership Drive; Financial Stability; Public Outreach (CSRN GPS Day had 70 attendees), Trig STAR for each Chapter, TwiST – post now and have winners post article on website in Side Shots; Stewardship/Advocacy, active legislative committee, inform members/public on legislative actions related to surveyors/surveying.

4: 2014 Surveyor's Summit, Chair Todd Beers
Venue, Sponsors, Tract assignments, speakers, advertisements

6.1 – List of Activities with Due dates.

6.2 – Assignments

6.3 – ILC Panel Discussion

6.4 – Metro Survey Equipment Donation?

If we repeat a topic, experiment with one topic to see if the second presentation is attended well.

If we experiment with the Saturday ses-

sion, possibly look at ½ day to make sure that field technicians can still attend. Maybe field topics on Saturday.

Any suggestions from the Board should be provided to the Committee for consideration. The decision remains within the Education Committee.

Chapter Summit Meeting seen as a success.

Next Side Shots deadline is July 1. JB Guyton is looking for articles for the next issue.

Project highlight – 2 short articles per issue and then the Board reviews these for recognition at the Summit each year? Give a free registration at Summit? Can we solicit to Counties to submit highway projects, etc.? (Patrick will contact counties, Alan will ask contractors he works with for right-of-way projects coming up, and Roger will contact Federal Highways)

Personal stories/ 40th Parallel

5: Bob Stollard's House (Update?). – Deed to be signed & recorded.

Have the deed; Roger will sign and Becky will get it recorded with the City and County of Denver; Roger and Becky will then go to the house to inform the current tenant on status. Becky has contacted Section 8 Housing and a realtor. She will report back on any additional steps that need to be taken and initial asking price for sale of the house.

6: PLSC 2013 Goals – See above

Board consensus is to meet every two months.

7: Reports:

President, Roger Nelson – Nothing more to add beyond what has been discussed.

Vice President, Mike Bouchard – Nothing more to add beyond what has been discussed.

Secretary-Treasurer, Terry Maw – Becky and Terry will update the budget and sent to the Board. Future reports need to be reported prior to each Board meeting

Executive Director, Becky Roland – Revise By-Laws to remove procedures – work so it is ready for the Summit to vote on.

NSPS Governor – Warren Ward

WFPS Delegates Mike Bouchard and JB Guyton - Next meeting is June 2 in San Francisco. Notes from the meeting will be printed in Side Shots. Need to make sure to let teachers know about Twist, Trig STAR and GPS Day.

Front Range Surveying and Mapping Program, JB Guyton, Chair

Lynn Paton on-line program. Jan Van Sickle has been working with CU Denver on a geo-spatial-type program (4 year program). Nothing on the immediate horizon for an in-person education program. Alan Blair volunteered to assist JB.

Based on the discussion relating to the health of the profession, it was noted that outreach to GIS and users of surveying services be made through articles in their industry magazines/events.

Roger asked Leif to write an article on work that they have been doing on the Western Slopes for *Side Shots*.

Pam asked that someone join the GIS listserve to answer the questions that come up related to surveying. JB offered and Steve Parker is willing to assist.

8: Standing Committees

Legislative Committee – Alan Blair, Chair – Status of Sunset Legislation – Created a blog on ILCs; Bill to be signed on 5/22 – Alan and Roger to attend (photo for website and Side Shots)

Survey Monumentation and Standards

Membership Committee, Mike Bouchard, Chair – nothing to report beyond previous agenda item; Roger asked Mike to send an email to Chapters to remind them about member drives (Southern and Central Chapters have drives in the works)

Ethics and Fair Practices, Patrick Green, Chair – no report

Education Committee, Todd Beers, Chair – Mentor? – no report

Liaison Committee, (QBS Colorado) ? Chair – wait until QBS decides their future structure

Special Committees – no report

Trig Star - See previous agenda items; Warren has made presentations and promoted Trig Star

GIS-In-The-Rockies – Kayce Wohlman – Call for Abstracts sent

9: Chapters

Southern – Joe Alessi, President – Members meeting next Tuesday – Todd Beers to present on the value of membership; Board members calling lapsed members; golf tournament in August; new website

Central – Chris Raml, President – Membership drive; baseline; next meeting at Table Mountain 4th Thursday

Northern – Kayce Wohlman, President – no report

NW ¼ - Brian T. Kelly, President – Push for GPS CORS Station in Steamboat

Western – Richard Bullen – Western Slope ex officio appointment - Peter Krick – Annual Spring Seminar Friday with Board Meeting

Southwestern – Josh Casselberry, President – Seminar June 7-8 information is posted online; baseline assistance; Durango CORS Station is up and running; Chapter page within PLSC site; Roger/Becky to provide quote on Refresher Course material/presentations (initially pay back expense to convert the tapes and then split the proceeds)

CSRN – Jan Sterling, President – Need to identify a successor for Jan; GPS Day was successful; Looking at possible presentations in June

10: Next Meeting Date and Location: July 17 at 4PM @ Merrick Office, 5970 Greenwood Plaza Blvd., Greenwood Village, CO. or call in on Go To Meeting.

11: Adjourn: Maw motion, Krick 2nd 6:15pm



Wagner Equipment Co. is now your service solution for Trimble surveying equipment.

With the most experienced service department in the region, we have the resources to fulfill our commitment to total customer satisfaction. Wagner repair services the complete line of Trimble surveying solutions.

- GPS field surveying systems
- GPS infrastructure solutions
- Robotic and servo-driven total stations
- Digital levels
- Trimble Data Controllers



Authorized Dealer



Call: 1-866-903-2335

*Your authorized dealer for
Machine Control Solutions*
www.wagnerequipment.com

UNDERGROUND UTILITY LOCATING



Diversified Underground is a Denver Based DBE-certified Company providing Subsurface Utility Engineering (SUE), Utility Locating, Hydro Vacuum Excavation throughout Colorado and the surrounding states.



SUBSURFACE UTILITY ENGINEERING (SUE)

Diversified Underground combines utility locating, hydro vacuum excavating and data research / management to produce an accurate map depiction of existing underground utilities.

UTILITY LOCATING

Diversified Underground offers complete utility locating services for the identification and marking of privately and publicly owned underground utilities.



Phone: (303) 636-9999 • Fax: (303) 671-8728 • www.diversifiedunderground.com

GIS

IN THE ROCKIES
2013 LOCAL TO GLOBAL:
GEOSPATIAL ON THE MOVE

**GIS in the Rockies
October 9 & 10
Denver**

EXCEPTIONAL CONTENT-RICH CONFERENCE:

- Outstanding Sessions
- Networking
- 2 Great Keynotes:
 - JAMES FEE Spatially Adjusted Owner/Founder; Planet Geospatial Founder
 - FRANK BIASI National Geographic Maps - Digital Development Director
- Presentation Opportunities – Sessions, Posters & Maps
- Onsite Job Fair
- Pre-Conference Workshops
- Post-Conference Tours: NREL (National Renewable Energy Lab) & MetCom (911 Communication Center)

Join us October 9 & 10 for the 26th Annual GIS in the Rockies Conference at The Cable Center on the University of Denver campus.

GISintheRockies.org



CCPS

I hope everyone is having a great time this summer enjoying the sun and taking in whatever hobby it is that you enjoy this time of year.

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. We have found a suitable location on Highway 2 in Commerce City and hope to have it complete by the time you read this installment of Side Shots. More information will follow as it will be measured by the NGS and published for public use in 2014. Thanks to Pam Fromhertz and everyone else who donated their time and other resources to make this happen!

The CCPS had hoped to continue to have topics and speakers at our general membership meetings this year that would be just as interesting as those we had in 2012, and I think we have succeeded! I want to give thanks to everyone who was willing to donate their time and present as one of our guest speakers so far this year.

Our June meeting was well attended as Apostol (Toly) Panayotov put on a well-received presentation about low-distortion projections and the new Geomatics program he is involved with at UCD. Please contact Dave Kuxhausen, or myself, if you would like contact information for Toly. If you have a speaker in mind for a future meeting please let me know. These are great venues to discuss anything regarding the land surveying profession.

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.central-cosurveypro.com for contact information, meeting details, and general CCPS news.

Christopher Raml, PLS
CCPS President

CSRN

The CSRN had another successful event on May 11, 2013 with the 3rd Annual GPS Day. The weather was perfect for a day outside talking with people about GPS, GIS, and Land Surveying. Boy Scouts, Girl Scouts, high school teachers, college students, surveyors, and GIS professionals were some of the people that came and enjoyed the event. Interesting and interactive displays were presented by Compass Tools, Frontier Precision, GeoShack/Rocky Mountain Lasers, and Wagner Cat. The City of Aurora GIS coordinator, Bill Keever, discussed GIS and had a contest for kids to color in the limits of different cities. Pam Fromhertz, of NOAA had a continuous audience discussing NGS's Mission and major NGS projects. The PLSC President, Roger Nelson, discussed the United States Public Land System and how America divided the land for personal ownership and Todd Beers demonstrated how aliquot division of sections was done. CSRN member Steve Parker managed the Geocaching course with handheld GPS units provided by Compass Tools.

The highlight of the day with much participation was the GPS Stake Out Course sponsored by Wagner Cat and Brennan O'Neil. Following the Trimble slogan, precision GPS can put you "Right of the Money," Brennan hid fifty one dollar coins in the grass and participants using precision GPS equipment found them. Once word got out that the participants got to keep the coins, there was a line to see Brennan O'Neil and his GPS equipment.

The CSRN still needs a Secretary, which is an officer position of the CSRN. If anyone is interested,

contact Jan Sterling at info@csrn.us. The CSRN is canceling the summer general board meetings due to everyone's busy schedules and the next meeting will be held September 19th, at a location to be announced later. Emails will be sent out when the location is tied down. The CSRN wishes everyone a wonderful and safe summer.

Jan Sterling, PLS
CSRN President

NC-PLSC

Our group is now on our summer hiatus and will kick back in full swing September 4th (location to be determined). This presentation we'll discuss goals and look to fill a Director position that will be opening up. Please submit an email to me if you're interested in filling this role. It's a great resume builder, helps support your surveying community and allows you the opportunity to really change the goals and direction our chapter will take in coming years.

Warren Ward provided our group with a presentation on NSPS this past May. He's going around to all of the Chapters of the PLSC and providing this service. I encourage everyone to attend. The NSPS wants to join forces with all state surveying organizations so we can have one voice.

David Tomaschow, a Surveyor with the Forest Service provided a presentation in April on record keeping at the Forest Service and provided excellent background on their organization. Anyone performing Forest Service work would have found this presentation of value. He also passed around some real treasures; old forest service maps.

Our group hopes to see you this fall when we bring in new and exciting presenters. We're also anticipating more projects. These include TrigSTAR, establishing a new CORS station, and the booklet production. If you have any ideas or suggestions,

CHAPTER NEWS

please forward them to me. We're always looking for new innovative ways to help our constituents.

Kayce D. Wohlman, PLS
Northern Chapter President

NW 1/4 CLS

Summer is well upon us here in the NW corner of the state. We only wish the economy heated up as fast as the forest fires!

Garfield, Routt and Moffat Counties - three of the counties that comprise a good part of the NW 1/4 - are showing similar recoveries from the economic recessions of years past. Property assessed valuations are down 25-35%, depending on which county you reside in, and in the case of Garfield County, property tax from Oil and Gas receipts are down 31%. Garfield County receives 71% of its property tax revenue from Oil and Gas, so the impact is over \$10 million of lost revenue, which carries through to delayed capital improvement projects, which of course impacts surveying. The same trend is also impacting Rio Blanco, Routt, Moffat, Jackson and Grand Counties, although only Rio Blanco County has anywhere near the Oil and Gas property tax revenue that Garfield County does. Therefore, all of the affected Counties in this part of the State are typically delaying or shelving capital improvement projects, unless there is a substantial federal or state grant involved.

Years past have shown this part of the State recovering a year or two after the Front Range. It appears the real estate market bottomed out last year and values are headed up. This has increased the number of sales in Routt County year to date, which of course has a positive impact on surveying. House values in the real estate market are typically selling for 60-70% of replacement costs, which is not helping the recovery of commercial and residential building. To sum it up, oil and gas surveys are down, real estate surveys are up,

construction surveying is down and overall most surveying companies are at personnel levels lower than historic memory.

We can see the recovery in the surveying job market along the Front Range and in other states, but the trend listed above for the NW 1/4 region of being a year or two behind also seems to be holding true in the surveying job market. It should be interesting to see what companies do as the market recovers. If the past five years are any evidence, most companies are trying to work out cooperative arrangements with other surveying companies to cover a short term need as opposed to hiring new personnel. Until there is real confidence that the recovery is here to stay, long term hiring in many cases could be two to three years away for this region.

Brian T. Kelly, PLS
Vice-President

SCPLS

Almost a year to date from last year's Waldo Canyon Fire, we now have experienced the worst fire in Colorado history. The Black Forest fire burned 509 homes and two people lost their lives. The community again thanks the fire fighters, the military, law enforcement and all the volunteers who have selflessly offered endless hours of service. Special fund raisers are to benefit the homeowners without insurance. Our hearts go out to all who have lost their homes and lifetime possessions.

The May Membership Meeting was held at the Colorado Springs offices of the Farnsworth Group. The theme was "Right of Entry for the Land Surveyor." We were honored to have two dynamic guest speakers discuss the Colorado Right of Entry for Land Surveyors, conceal carry permitting, firearms training opportunities, and how the new Colorado gun laws may impact our everyday lives.

The first speaker was Tim Priebe, an attorney with a practice dedicated to business law and litigation. Mr. Priebe is certified through NRA to teach the Basic Pistol Course, as a former San Diego police officer and a weapons instructor at Fort Carson. Mr. Priebe presented the Colorado Revised Statutes pertaining to Right of Entry and the process described in the law.

Second speaker was Paul Paradis, a local firearms store owner, an expert in court related firearms cases, and an instructor for conceal carry permitting in Colorado. Mr. Paradis discussed the responsibility and training needed to comply with the standards of the law for a conceal carry permit.

The meeting was educational and revealed valuable information that the Land Surveyor must comply with the Law as it relates to access across public and private land.

Joseph Alessi, PLS
President, Southern Chapter

SWC - PLSC

The SWPLSC held our most recent chapter meeting on Tuesday, May 14 in Durango. We had the honor of hosting Warren Ward on behalf of the NSPS. Some of our members have volunteered for Trigstar, which is a high school testing that includes trigonometry survey related questions. We will be working with Durango High School and Animas High School.

Our annual seminar had a great turnout of attendees. A good number of our attendees are from the neighboring state of New Mexico. There were also folks from Arizona and Utah. We hosted Dennis Mouland, Milton Denny, Pamela Fromhertz and Alison Walls as speakers. We are working on updating the chapter website with current officers, meeting minutes and time/location information.

Our next meeting is scheduled for

CHAPTER NEWS

Tuesday, September 10. Look for guest speaker information, time and location in the upcoming email.

Joshua J. Casselberry, PLS
President, SWC-PLSC

WCLS

Many thanks to all who participated in the WCLS Spring Seminar. Special thanks to Mr. Dave Pehr for sharing his knowledge with us. Peter Krick, Dennis Shellhorn and Brian

Bowker did an excellent job putting the seminar together. Thank you to Souder, Miller & Associates for sponsoring the morning break. Thanks to the vendors and others that provided door prizes, including: BLM (Dave Ginther), Vectors, Frontier Precision, Safety Tek Industries, Berntsen International, Blue Marble Geographics and Grand Valley Reprographics. We had a large amount of door prizes and Dave Henderhan was the win-

ner of the IPOD Touch donated by WCLS. Thanks again for helping to make the seminar a success.

Our next meeting will be on July 10th and it will be a family BBQ. The BBQ will be at the grand shelter at Canyon View Park and will start at 6:00. Please RSVP to Richard at (970) 245-4921.

Richard Bullen
President, WCLS

SUSTAINING MEMBERS

ACCURATE CORE DRILLING, INC.

15550 Hwy. 86
Kiowa, CO 80117
303-898-4385

ASSURANCE RISK MANAGERS

2851 S. Parker Road
Suite 760
Aurora, CO 80014
303-454-9562

TERRY C BARNES

Range West, Inc.
P.O. Box 589
Silverthorne, CO 80498
(970) 468-6281

BERNTSEN INTERNATIONAL, INC.

P.O. Box 8670
Madison, WI 0
608-249-8549

CAD-1

12130 N. Pennsylvania Street
Thornton, CO 80241
303-427-2231

CARLSON SOFTWARE

12161 W. Layton Avenue
Morrison, CO 80465
303-482-1836

COMM-TECH

5398 Manhattan Circle
Boulder, CO 80303
303-530-4976

COMPLIANCE SOLUTIONS

3980 Quebec Street
2nd Floor
Denver, CO 80207
303-307-9220

DAVID EVANS AND ASSOCIATES, INC

1331 17th Avenue
Suite 900
Denver, CO 80202
720-946-0969

DIVERSIFIED UNDERGROUND INC.

2851 S. County Road, #137
Bennett, CO 80102

ENCOMPASS SERVICES, LLC

394 Lake Avenue S.
Suite 510-D
Duluth, MN 55802

ESRI

380 New York Street
Redlands, CA 92373
909-793-2853

FLATIRONS SURVEYING & ENGINEERING, INC.

3825 Iris Avenue
Suite 395
Boulder, CO 80301
303-443-7001

FOUR POINTS SURVEYING & ENGINEERING, INC.

P.O. Box 775966
Steamboat Springs, CO 80477

FRONTIER PRECISION INC

5480 West 60th Ave., Unit A
Arvada, CO 80003
720-214-3500

HIXON MFG & SUPPLY CO

8775 E Orchard Road
Suite 807
Englewood, CO 80111
303694-0012

HOLMAN'S USA, LLC

6201 Jefferson St. NE
Albuquerque, NM 87109

ROBERT R JOHNS

Range West, Inc
P.O. Box 589
Silverthorne, CO 80498
(970) 468-6281

NGS/NOAA

Pamela Fromhertz
c/o USGS Core Science Informatics
Building 810, MS 306
Denver, CO 80225
303-202-4082

NV 5

8000 South Chester Street
Suite 200
Centennial, CO 80112
303-220-6400

POWER SURVEYING COMPANY INC.

120 W. 84th Avenue
Thornton, CO 80260
303-702-1617

PWSI LAND SURVEYORS

3545 S. Platte River Drive, #M-3
Sheridan, CO 80110
303-904-1345

DIANE SIERRA

10355 Westmoor Drive
Westminster, CO 80021

SITewise CORPORATION

7000 N Broadway #3-305
Denver, CO 80221
303 459 6531

SKLD INFORMATION SERVICES

9540 East Jewell Avenue
Suite A
Denver, CO 80247
303-695-3850

SURVEYING & MAPPING, INC.

4801 Southwest Parkway
Bldg. 2 #100
Austin, TX 78735

SURV-KAP LLC

P.O. Box 27367
Tucson, AZ 85726
520-622-6011

TERRAMETRA RESOURCES

2919 Bryn Mawr Place
Longmont, CO 80503

TERRAMETRIX, LLC

4852 S 133rd Street
Suite 105
Omaha, NE 68137
402-618-3165
w

TOTAL POSITIONING SOLUTIONS

5385 Quebec Street
Commerce City, CO 80022
303-853-0311

TRIMBLE

10355 Westmoor Drive
Westminster, CO 80021

UNDERGROUND CONSULTING SOLUTIONS

2701 W. Oxford Avenue, Suite 6
Englewood, CO 80110
303-904-7422

VECTORS, INC

8811 E Hampden Avenue
Ste 110
Denver, CO 80231
303-283-0343

WESTERN RESEARCH & DEVELOPMENT

634 Suntrail Drive
Loveland, CO 80538
307-632-5656

WOOLPERT

16916 E. Costilla Ave.
Foxfield, CO 80116

These firms support our organization.
Please show them your appreciation
with your patronage.

Digital Terrain Models
Digital Elevation Models
Orthometric Photos

Western
Research & Development, Ltd.

Topographic Mapping
3-D As-Built
Contour Maps

State-of-the-art LiDAR & Digital Imaging

- **High Accuracy LiDAR**

Maximum rate of 200,000 KHz which translates to a point cloud as high as 150 points/m².

- **Real-time Decision-making**

Our field & flight crews are staffed with Professional Engineers & Land Surveyors who truly understand data collection in real-time.

- **High Definition Digital Images**

Our Leica 39 megapixel RCD 105 Digital Camera produces images at two inches per pixel or higher.

- **Reliable Topographic Mapping**

The helicopter flies at low altitudes and is capable of providing elevations at two-tenths of a foot or less.



Tel (307) 632-5656

5908 Yellowstone Rd, Cheyenne, WY

www.wrd-ltd.com

Complete Photogrammetric Services MAP WORKS

Contact: Ralph Vomaske, Certified Photogrammetist, ASPRS

7625 W. 5th Ave. #203E • Lakewood, CO 80226

Phone: 303-445-1856

E-mail: mapworks@qwestoffice.net

HOLMAN'S | USA

PRECISION PERFORMANCE SINCE 1955

Surveying | Computers | Plotters

HP Designjet T520 36"

Item#: Designjet-T520-36

\$2,850.00 Includes ZERO Dollar Shipping!

Valid until 5/31/13

Fast & Professional Results

Easy & Convenient Printing

Print From Virtually Anywhere



Carlson Civil Suite-Survey, Civil, Hydrology & GIS

Dramatically increase your productivity while you save both time and money. Need Pricing? Call Amy at 1-800-545-0932 Today!

Or Order Now at Holmans.com.

GSA

Schedule
Contract GS-07F-9235S

Call Toll Free 1-800-545-0932 HOLMANS.COM

Prices are subject to change without notice. Limited Quantities. Plus sales tax if applicable.

THE MEASURE OF EXCELLENCE

FOR 40 YEARS!



SURV-KAP.com

EASY ORDERING ONLINE!

SURVEY MARKERS, CAPS AND ACCESSORIES

800-445-5320



Need to get Utilities located?



Don't let these guys scare you..

Call UCS for Utility Locating

We will tell you what they are hiding under those boxes...



Underground
Consulting Solutions

- QUALITY -
- DEPENDABLE -
- EXPERIENCED -

*We'll get the job done right -
the first time*



**Underground
Consulting Solutions**



Private and Engineering Utility Locates