August 2009

# SIDE SHOTSProfessional Land Surveyors of ColoradoVolume 40, Issue 3

The Sanctity of Monuments - page 8

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

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Dear Fellow Members:

Several of us recently got a chance to meet with representatives of the Department of Regulatory Agencies (DORA) to discuss Continuing Competency. In attendance from DORA were: D. Rico Munn, Executive Director; Gregg Ferland, Deputy Director; Angie Kinnaird Linn, Section Director; Chris Lines, Legislative Liaison; Charlie Adams, Program Director; and Ronne Hines, Division Communications Coordinator. From the PLSC we were represented by Diana Askew (Exec. Dir.), Mike Greer (V.P.), Roger Nelson (Director), Gene Kooper, (Past Exec. Director), Ed Bristow, (member), J.B. Guyton (Past President) and me. Gene, Ed, and J.B. are members of the AES Board's work group tasked with drafting rules for the architects' continuing competency program.

Gene led off the meeting with some observations and questions. This meeting was extremely educational for me.

The PLSC Board of Directors has been discussing whether we should pursue a continuing competency program and, if so, when we should propose a legislative bill. We may be polling the membership sometime soon in regards to this as well.

One of our discussion topics was the difference between Continuing Education and Continuing Competency. The PLSC has tried to get a continuing education bill passed in the past to no avail. According to DORA, Continuing Education in and of itself is not sufficient to ensure continuing competence. DORA has been working on a "generic" model for Continuing Competency that the individual Boards would modify to meet the specific elements for the professions that they regulate.

The PLSC seeks input from members regarding whether a Continuing Competency program should be required for Colorado surveyors. From my understanding, Continuing Education would be out of the question. It is the general opinion of the DORA representatives that requiring Continuing Education for license renewal does not ensure continued competency of the professional. At present, it appears that Continuing Competency is the only viable program that DORA is willing to support.

Some of the pros of a Continuing Competency program, as I see it, include:

- The philosophy or "spirit" of Continuing Competency is to actually require the professional to demonstrate they learned something.
- Continuing Competency can be more tailored after the specific discipline(s) and may include continuing education as a component.
- A successful Continuing Competency program can assure that those who have met the requirements to be licensed continue to stay on top of the profession and changing technologies and laws.
- A Continuing Competency program could theoretically include education programs, such as ethics or updated knowledge of State Laws and regulations (as examples).
- The political environment is amenable for bringing a Continuing Competency proposal up. The Governor's office and the Legislature support the general principle of continuing competency regulations.

Some of the negative aspects of implementing a Continuing Competency program now, as I see it, include:

 DORA has not finalized their continuing competency model. It may be premature to introduce legislation for Continuing Competency. Without a generic model in place, we could be getting into unknowns as to what a continuing competency program for land surveyors might include.



 Another argument against Continuing Education, is that it is incumbent on the professional to understand that learning and education are lifelong commitments, and can't be effectively legislated or regulated.

From the paper, "Continuing Competency – a Colorado Approach" prepared by the Executive Director's office, "Continuing Competency is a movement that requires professionals to demonstrate their competency in their field, usually by means of assessment against a standard, ranging from an initial self assessment, to a peer review, or even published articles in a recognized journal."

Another concern many have is the *initial self-assessment* (emphasis mine). A self-assessment in which the regulated member defines their "weaknesses and deficiencies" could be a problem. No one wants to state that they are deficient in a certain area of surveying or boundary law for the record, if it later could be used against them, such as when testifying as an expert witness on a case that relates to one's self-assessed deficiency. The AES Board's work group is looking at ways to cast the self assessments in a more positive light. More specifically, an assessment of where the registrant hopes to be in the next renewal cycle as opposed to assessing one's current weaknesses and deficiencies.

Please think about the possible place for a Continuing Competency program for Colorado land surveyors. Do you want the PLSC to (1) move forward with introducing a bill in the 2010 legislative session, (2) wait until a better model can be hammered out by DORA, or (3) are you against legislating any form of continuing competency at all? Look for a poll or a vote on this matter so the PLSC can better represent the opinions of its membership.

You can learn more about Continuing Education and Continuing Competency by visiting the AES Board's main web page (http://www.dora.state.co.us/aes/index.htm).

Speaking of "continuing your education and competency", the PLSC Fall Technical Conference will be held at Denver University on November 12, 13, & 14, 2009. Attending can provide an opportunity to learn, explore

new concepts in surveying, visit with vendors, share new ideas and network with new and old friends while supporting your state professional organization.

Sincerely, Tom Adams, PLS





# FROM THE EDITOR

I received word that Randall M. Zanon, PLS, the Chief Cadastral Surveyor for the Bureau of Land Management (BLM) Colorado office, has retired. Randy has been



Randy Zanon

contributing regular notices in Side Shots that listed the officially accepted cadastral surveys, and has served as a major participant in our chapters. He has been a speaker at many workshops, and I have personally benefited from his extensive knowledge and experience. He has also served as an important mentor to the next generation of BLM surveyors. Prior to the current budget crisis, the BLM had been one of the most significant contributors to the MSCD surveying program.

Randy graduated from Oregon

State University with a B.S. in Forest Engineering in 1976, and started his surveying career working for Burlington Northern Timber and Lands (now Plum Creek) in Missoula, MT. He returned to Oregon in 1980 and began working as a staff surveyor for the U.S. Forest Service in Medford, OR, and later Corvallis, OR. He has been licensed as a PLS in Oregon since 1981. In 1992 he left the Forest Service and went to work for the BLM -Oregon State Office in Portland, OR as a surveyor on the Geographic Coordinate Data Base (GCDB) staff. In 1999 he accepted a promotion and transfer back to Medford, OR as the Lead Land Surveyor for the BLM - Medford District. And in 2004, he accepted a promotion and transfer to the BLM - Colorado State Office, as the Chief Cadastral Surveyor. He retired from the BLM in July 2009 after 34 years of feder-

# On the cover...

Photograph of the east side of London Mountain which is located 7 miles west of Alma, CO. Mosquito Creek is in the foreground. Photo courtesy of Gene Kooper.

# This Month on WWW.PLSC.NET

In the online version, click on the titles below to download the documents.

Text and maps of the 1904 General Land Office decisions: *Sinnott v. Jewett*, and *Drogheda and West Monroe Extension Lode Claims*. (Supplements to the article, "The Sanctity of Monuments")

Preface to the content related to the Colorado Revised Statutes contained on the PLSC USB flash drive advertised in this issue, with details and credits.

Legislative Committee Update by Roger D. Nelson, PLS

Western Federation of Professional Surveyors, Board of Directors Meeting Report, June 13, 2009 in Reno, Nevada, by David C. DiFulvio, PLS, Colorado Delegate.

National Museum of Surveying news, history, mission and status.

Thank you from the Colorado Height Modernization Board to the CCPS and WCLS for their contributions to the May, 2009 forums and workshops.

Notice about the Certified Survey Technician (CST) Program sponsored by the NSPS.

al service.

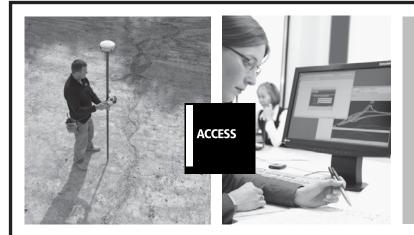
Randy's plans for the future are to do some travelling, camping, hunting, fishing, a little golf every now and then, in addition to taking up and learning something about landscape photography, strictly at the amateur level. Randy and his wife will continue to make their home in Arvada as all of their adult children and their spouses live in the greater Denver metro area. Randy also plans to remain active in PLSC and CCPS.

On another subject, mark your calendars for November 12th through the 14th, for the Fall Technical Session at the University of Denver. We may have set a new record for attendance last year, which was a great benefit to the participants and to the PLSC. Let's face it: The economy is still bad, and most of our colleagues are suffering. If you find yourself underemployed, this will be an opportunity to network, talk to each other, share ideas, and learn ways to survive and eventually prosper when things turn around for the better. You will also learn the latest techniques and advancements, and improve your knowledge and competitiveness in this tough marketplace. Consider telling your non-PLSC member associates about the Fall Tech Session. Watch your email

for more details and registration information. I hope to see all of you there.



JB Guyton Editor



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# Mineral Survey Corner The Sanctity of Monuments

### By Gene Kooper, PLS

One of the most elementary land surveying principles is that monuments control over courses and distances. Why is it that surveyors often wrestle with this basic tenet of land surveying? While the great majority of surveyors accept this principle for original Public Lands Survey System (PLSS) corners, they often feel justified in rejecting a private surveyor's monument whenever its position is not within what they regard as an acceptable "error radius". A frequent reason given for rejecting a monument is the surveyor's desire to protect the public by "fixing" the mistake of the previous surveyor. The pejorative term, "expert measurer" describes a surveyor who fails to acknowledge the sanctity of monuments and, instead, clings to the accuracy of their measurements.

The failure of surveyors to recognize the sanctity of monuments is not just a recent invention, nor is it limited to land surveyors in private practice. In previous Side Shots issues. I described a General Land Office (GLO) policy that was in effect for five years where the original mineral survey monuments were ruled to be inferior to the measurements in the patent description when determining which ground had been patented. The reasoning of the Commissioner of the GLO, the Honorable Binger Hermann, was based on the sworn statements of both the mineral surveyor and the Surveyor General that the field notes and plat accurately described the land that was patented. Since the Commissioner's office in Washington D.C. housed thousands of mineral survey field notes and plats instead of monuments, those documents were deemed to be without material error.

In the August 2006 issue of Side Shots, I described the survey of the Portia, Silver Pine, and Edison lodes above Georgetown, Colorado that was the catalyst for this GLO practice. The article, "History Has a Way of Repeating Itself" in the May 2006 Side Shots discussed the legislative history and included the full text of the Act of April 28, 1904 that finally ended the GLO practice. Congress was puzzled about why the legislation was necessary, as common law had long held that monuments control over measurements, but concluded that legislation was required to end the errant GLO policy. This position was reiterated in the U.S. Supreme Court decision Silver King Co. v. Conkling Mining Co., 255 U.S. 151, (1921) which stated, "The Act of April 28, 1904 amending Rev. Stats. § 2327, and declaring that monuments shall prevail over inconsistent descriptions in mining patents, merely made more explicit the previous policy of the law". These back issues are available online at the PLSC web page http://www.plsc.net/sideshots/sideshots.htm.

After passage of the act, the Department of Interior set about the task of undoing five years of cadastral mayhem. The term cadastral mayhem accurately describes

the GLO's conscious decision to dismember the cadastral integrity of the mineral lands between 1899 and 1904. During that time, approximately 4000 mineral survey orders were issued in the state of Colorado alone. On June 20, 1899 C. C. Goodale, the Colorado Surveyor General, excerpted two paragraphs from the Departmental letter concerning the Portia, Silver Pine, and Edison lodes and issued it as a circular to all mineral patent applicants and U.S. Deputy Mineral Surveyors working in the District of Colorado. On June 24, 1900, the Assistant Commissioner, Mr. William A. Richards sent a letter to Mr. Goodale informing him that the Commissioner's Office had heard rumors of the circular issued the previous year. Mr. Goodale was chastised that he had no authority to issue the circular and instead should have sent a draft to the Commissioner's Office for approval. The early development of the policy and its spread to other western states and territories is not well documented, but early in 1901, an unpublished Departmental decision was rendered that fully supported the "informal" Colorado policy.

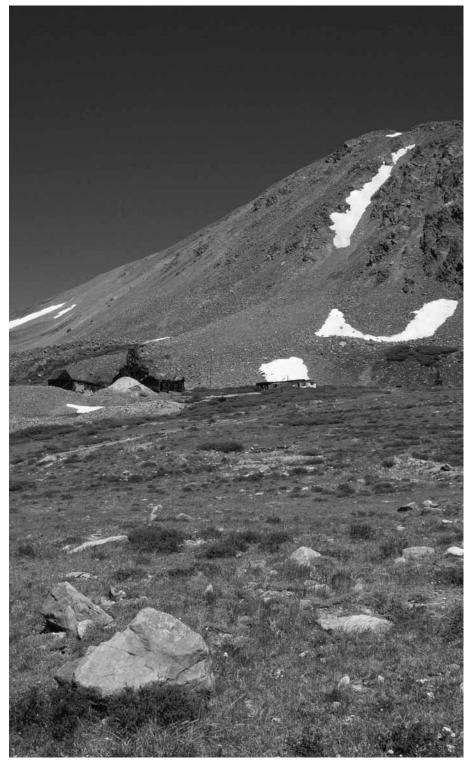
In the 1901, "Annual Report of the Commissioner of the General Land Office", the Utah Surveyor General, Mr. Edward H. Anderson included the following statement in his report, "The Department of Interior holds that courses and distances once incorporated into a patent must be recognized in all subsequent conflicting and adjacent surveys, notwithstanding actual conditions on the ground to the contrary. This means a perpetuation of the error, if any exist, in the former patented survey, and the deputy who makes the latter survey is compelled to falsify his returns to conform to such error. The courts hold that the monuments and markings on the ground govern." The only decision published by the Department of Interior that formalized this policy was, "The Mono Fraction Lode Mining Claim" Land Decision (31 L.D. 121), on October 16, 1901. The 1902 unpublished Colorado decision, "Lucky Strike Gold Co., Quasi Contest No. 2172, involving the survey of the Only Chance and other mining claims" solidified the Department's position that the tie to the section corner is superior to any ties to nearby mineral survey corners and, therefore, is the tie that must be used to show the patent description position.

Two kinds of discrepancies can occur when one believes that the patent description is without error. The first one is where there is a patent description conflict shown on the plat, but no conflict exists on the ground. The August 11, 1904 Land Decision, "Drogheda and West Monroe Extension Lode Claims" (33 L.D. 183) addresses this condition. The Drogheda decision also includes the revisions made to Paragraph 147 of the mining regulations that required the mineral surveyor to show the actual conflicts. The PLSC web site contains



supplementary material that includes the full text of the decision and the connected sheet for the northern portion of Sec. 14, T3S, R73W (the general area where the claims were located). Because the survey was never approved, there is no official record of the survey. After seven years of vainly attempting to acquire and surrender the patents to all the conflicting claims with deficient patent descriptions, the claimants reluctantly abandoned the Drogheda and West Monroe Extension lodes.

The second type of discrepancy is where there is a true conflict on the ground, but none shown on the



Looking north at the southwest flank of London Mountain.

plat. This condition is far more problematic than that described in Drogheda, et al., since the same ground may be conveyed in multiple patents. Talk about cadastral mayhem! The Sinnott v. Jewett Land Decision (33 L.D. 91) was issued on July 12, 1904. Delia Sinnott owned the Emma Nevada lode claim and W. Kennon Jewett had staked the Silver Monument lode over the top of the Emma Nevada. Mr. Jewett had moved from the East to Colorado Springs because of health problems. His father was the president of the Erie Railroad in Ohio and his inheritance provided ample capital to invest in numerous western mining ventures. In 1901, U. S. Deputy Mineral Surveyor, W. H. Powless was employed by Mr. Jewett to survey several existing mining claims that extended into the scree slope on the southwest flank of London Mountain. London Mountain is approximately 6 miles west of Alma, Colorado and lies between South Mosquito Creek and Mosquito Creek. The photo at left shows the view looking north at the southwest flank of London Mountain.

During the survey Mr. Powless noted a material error in the length of the Mother lode which shared a common end line with the Paris lode on the north and the American lode on the south. He reported that the Mother lode was 1624 feet long and because the patented dimension was only 1500 feet, the "paper" gap of 124 feet could possibly be claimed by other parties. Wishing to protect his land holdings, Mr. Jewett declared that a gap existed between the Mother and Paris lodes and located the Allentown lode on August 10, 1901 to claim that "paper" gap. However, the patent description position for the Emma Nevada precluded him from claiming the western half of the just created gap between the Mother and Paris lodes. The patent description position for the Emma Nevada lode was a staggering 1105 feet to the northwest of where its monuments on the ground showed it to be. To make matters worse, the paper position of the Mother lode was 554 feet out of position, which precipitated the need to locate the Mater lode on April 25, 1902 at the Mother lode's monumented position. Despite the fact that the Mother and Mater lodes essentially occupy the identical ground, the Mater was issued a patent on November 20, 1905 for 6.922 acres!

Not wanting to miss an opportunity, Mr. Jewett located the Silver Monument lode on January 16, 1902 in essentially the same position as the Emma Nevada's monumented position with the exception that the end lines of the Silver Monument were made to be parallel to the end lines of the Tip Top and Iola lodes. Unraveling this convoluted Gordian Knot was the objective of the Sinnott v. Jewett land decision. The two figures below highlight the path to total absurdity that often occurs when one ignores monuments in favor of a mathematical solution. The first figure is a sketch of the segregation diagram that was prepared in July 1902 and forwarded to the GLO

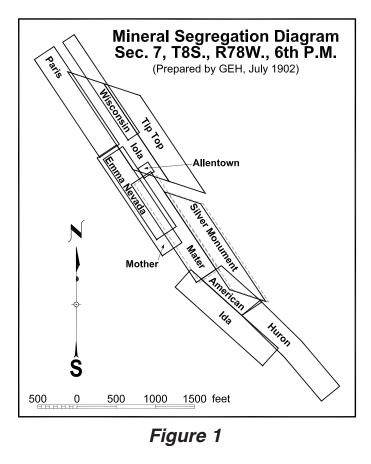
Commissioner on September 26, 1902 in response to Mr. Jewett's application for patent of the Silver Monument. The claim positions are based entirely on the section and guarter-section corner ties to a perfect one-mile section. I was not able to determine why there are two positions for the Mater and Silver Monument lodes. The second figure is a sketch derived from the mineral survey connected sheet prepared in 1937 that more accurately shows the monumented positions of the same claims depicted in the 1902 segregation diagram. For purposes of clarity, later claims are not included on the connected sheet sketch.

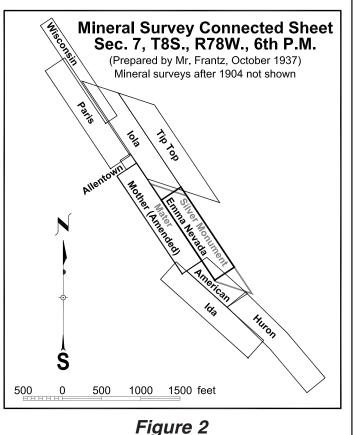
The Sinnott *v*. Jewett Land Decision contains numerous court cases, legal opinions and mining law treatise summaries confirming the sanctity of monuments. The PLSC web site contains supplementary material that includes the full text of the decision along with color scans of the

original segregation diagram, connected sheet, and mineral survey plats of the Emma Nevada and Silver Monument lodes. After the decision was published, the remainder of the created gap between the Mother and Paris lodes was claimed as the Easton lode and surveyed on September 5, 1904.

These land decisions will be discussed in greater depth during my mineral survey presentation on Friday, November 13, 2009 as part of the PLSC Fall Technical Conference at Denver University. I hope to see you there for what promises to include some lively discussions!

Note: In the May issue, Mr. Zanon noted that the BLM would be scanning their documents for online access. To date, all of the mineral survey connected sheets in Colorado (approx. 1,950 sheets) have been scanned. They should be available online in the near future.





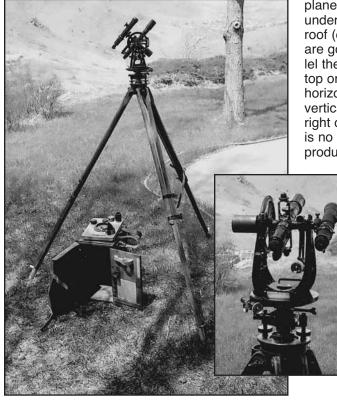
# Control Points Mine Surveying

### By Warren Andrews, PLS



A mine surveying transit is one of the older surveying instruments that I personally own two of. Of course you might expect that, for those of you who know me, besides being a professional surveyor I'm also a mining engineer. My regular transit, which has gone a good many miles since the 1950's with me, is a Wm. Ainsworth & Sons, made in Denver, Colo., U.S.A., No. 2833. It has the side telescope mounting but not the top or bottom scope mounting. It has one unique feature that other transits do not have in that the vertical circle is end reading, not side reading (you don't have to squeeze your head between the instrument and the wall to read it). Ainsworth made two other items that I know of, the Brunton compass and precision gold button balances for mine assaying, so their transit was noted as being well made.

The instrument shown in the pictures is my other mine surveying transit, a C.L. Berger & Sons, Boston, No. 6945. For the auxiliary telescope it has either top or bottom mounting on the main scope or right or left mounting on the transit horizontal axis. Unlike the Ainsworth it has a regular side reading vertical circle. It also has a right angle eyepiece for either the main scope or the auxiliary scope plus a hinged solar filter on that eyepiece for using sun shots for bearing. Also shown on the end of the main scope in the pictures is an open-side right-angle partial reflector (you look through the center of the reflector for your sight) – certainly not a sunshade for underground work! – which illuminates the cross hairs in the scope by means of a candle, carbide light, or electric battery cap lamp at the side of the scope. The other item shown is the counterweight to the auxiliary scope to prevent excessive wear and lopsidedness on either the standards or the horizontal axis of the transit.



Usage of an auxiliary scope is the major difference between plane and mine surveying. In practice you set up the transit under (not over) a plumb bob, hanging from a hooked spad in the roof (or back in a metal mine) with the main scope level. If you are going to use the auxiliary scope you have to adjust it to parallel the main scope line of sight by tracing a point. If you use the top or bottom scope for steep shots you don't have to correct the horizontal plate angle for the offset but you do have to correct the vertical angle. Similarly, if you mount the auxiliary scope on the right or left standard you correct for the horizontal angle but there is no correction for the vertical angle. The correction is the angle produced by the offset of the line-of-sight (on the Berger it is

> 0.300 feet in each position) relative to the slope distance to the station observed. (Be careful whether it's right or left!)

The book *Evolution of Mine Surveying Instruments* by Dunbar D. Scott and others, originally published in New York City, 1902, by the American Institute of Mining Engineers and with a 1998 facsimile reprint by Gemmary, Fallbrook, California (which is in my own library), I would recommend to anyone wanting to pursue the subject. There are some most interesting and varied mechanical arrangements such as pivoting and offset standards in the illustrations. W.W. Staley's book Introduction to *Mine Surveying*, Stanford University Press, 1971, is probably the most recent of many mine surveying texts.

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

## by Charlie Adams, Program Director

Summer greetings from the Board staff – Marshall, Lynn, Carmena and me! Some exciting things are on the horizon such as a new Board Newsletter (check the website at http://www.dora.state.co.us/aes/newsletter) and Board Member Bryan Clark, PLS will represent the Colorado Board at the National Council of Examiners for Engineers and Surveyors (NCEES) Annual Meeting in August. Reference our website at http://www.dora.state.co.us/aes for updates on the most recent Board news.

# NCEES will provide funding for the National Museum of Surveying in Springfield, IL

The Board is a member of NCEES which is a national nonprofit organization composed of engineering and surveying licensing boards representing all U.S. states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands. NCEES develops, scores, and administers the examinations used for engineering and surveying licensure throughout the United States. NCEES also provides services facilitating professional mobility for licensed engineers and surveyors.

As many of you know, The National Museum of Surveying first opened in 1989 but will reopen this year in a new 10,000-square-foot space in Springfield, IL. NCEES has recently agreed to provide funding for the museum to construct a 45-seat theater that will be used to highlight the history and evolution of surveying and mapping in the United States. The museum also includes exhibits about famous Americans who practiced surveying, including Abraham Lincoln, Thomas Jefferson, and Lewis and Clark. The museum's new location is just blocks away from the Abraham Lincoln Presidential Library and Museum.

#### The Complaint Process (continued)

As a part of this regular update for Side Shots, I would like to continue installments on the details regarding the complaint/investigation process in the event a licensee has a complaint against them at the Board office. In this update, I will continue to explain the complaint process to include what happens if the Board requests a formal investigation. Some complaints are investigated informally by tabling to request additional information from the licensee or complainant. However, the Board may also refer the complaint to the Office of Investigations, a program within the Division of Registrations, Department of Regulatory Agencies.

If you have a complaint against your license pending with the Board, you will generally receive a letter from the Board staff informing you that your case has been forwarded to the Office of Investigations. In some circumstances, however, the first contact you have regarding a complaint will be from the investigator assigned to handle the case.



Charlie Adams

Often, licensees wonder if they should hire an attorney when they have a complaint filed against them at the Board office. It is important to remember that throughout the process, the Board, its staff, and the Office of Investigations cannot provide licensees with legal advice. If you have a complaint pending with the Board, you are not required to hire an attorney. You do have the right to be represented by an attorney at any stage of the process if you so choose. If you do hire an attorney, you are responsible for any costs associated with legal representation.

When a case is referred to the Office of Investigations, the assigned investigator acts as an impartial, factfinding, third party and does not "represent" the complainant, the Board, or the licensee. The investigator gathers pertinent information, conducts interviews, and may even retain an expert consultant to review the case for technical merit. The investigator then prepares a written report that is ultimately reviewed by the Board, which will then determine whether to pursue disciplinary action. The investigator does not make any recommendations to the Board regarding what disciplinary action, if any, to take.

The timeframe to complete an investigation will vary from case to case. However, investigators normally process cases within 180 days from the time the Board refers the case to the Office of Investigations.

In the next update, I will continue to explain the end of the formal investigation process and round out the update with the options that the Board has if it makes a determination that there has been a violation of the practice act.

# The Colorado Height Modernization Program By Diana E. Askew, PLS

What is Height Modernization? Height Modernization is a program within National Oceanic and Atmospheric Administration's (NOAA) National Geodetic Survey (NGS) that provides accurate height information by integrating Global Positioning System (GPS) technology with existing survey techniques. The Height Modernization program was created to enhance the vertical component of the National Spatial Reference System (NSRS). The NSRS is a consistent national reference framework that specifies latitude. longitude, height (elevation), scale, gravity, and orientation throughout the United States.

In February of 2009, the concepts of Height Modernization were introduced to Colorado for the first time. This initial outreach project was the result of a shared vision between NOAA, NGS, CDOT and the Colorado Height Modernization Advisory Board (CoHMAB). The project was funded by a grant from NOAA, which was a painstaking proposal effort which came to fruition in late 2008. The grant funds were to be used for outreach, education, and a study to assess the needs for increased accuracy and density of vertical control in Colorado.

Those of us who work in Colorado know how important vertical control is to our projects. But the Height Modernization effort is focused on more than simply setting benchmarks! Height Modernization is a national program with its roots deep in multiple states, with a goal to supplement the data used to derive a mathematical model of the geoid. In addition, the effects of gravity, which are considerable in Colorado, will be scrutinized as it relates to how it affects the vertical component of measurement.

In Colorado, as is the case in many other states, demand for accurate heights using Global Navigation Satellite System (GNSS) technologies is not only on the rise, but oftentimes a contractual requirement. Modern digital maps with precise horizontal and vertical control are needed to ensure accuracy. However, Colorado's current NSRS is inadequate to efficiently support improved mapping capabilities. Height Modernization will establish accurate, reliable heights for Colorado using GPS technology in conjunction with traditional leveling, gravity, and remote sensing information.

Height modernization has proven successful in coastal states where storm surge and flooding create an immediate need for accurate heights. Although similarities with Colorado exist, the state's elevation variations, geography and problematic geoid model offer some unique challenges to the National Height Modernization Program (NHMP).

Undetermined levels of terrestrial subsidence exist throughout the state as demonstrated by a recent height modernization project conducted for Denver International Airport (DIA). Our deteriorating vertical control network has resulted in unresolved variances to published ellipsoid heights, geoid separations and orthometric heights. Together, these elements create severe vertical infrastructure problems for Colorado. Height Modernization is a key component to resolving these problems at the local, state, and federal level and will become more critical as the state's population continues to rise.

The Cities and Counties of Colorado, along with many of the Federal agencies were contacted as part of the Needs Assessment process. In the more populated areas of the State, vertical control data was found to be abundant and well organized into GIS applications and spreadsheets. Most of the State of Colorado is less populated than the Front Range and Western Slope, so the vertical control is sparser, and the location of reliable vertical monumentation is primarily dependent on NGS records. In many areas of the State, the records are several decades old, and approximately half of the vertical control set by the NGS is missing or disturbed.

This provides a substantial challenge to the scope and budget of surveying projects. Often, a surveying consultant has to run traditional levels for long distances to provide for the vertical accuracy component of the project control. In addition, due to the fact that the



Diana Askew

scope of projects is specific to the need of that project, the resultant vertical control is not ordinarily added to the NSRS. Meeting the requirements of NGS standards for first, second, or third order vertical control is also time consuming and requires specialized instruments with experienced staff. If we carve out smaller scale local projects from the mix, that leaves the burden on local, state, and Federal agencies to cough up the funding to include a Height Modernization component in projects. Where will the funding come from?

NOAA offers a grant program to support funding for projects which include a Height Modernization component. The program in Colorado is supported by NGS, CDOT and CoHMAB. In the future, it will be important for local, state and Federal agencies to partner with NOAA through NGS, CDOT and the CoMAHB to help make the local program a success.

Colorado's mountain ranges, plateaus, floodplains, and urban areas provide ideal testing grounds for the NHMP use of airborne gravimetry to evaluate advancing GNSS technologies in ways other states have not been able to offer. A state-of-the-art NSRS that incorporates the accuracy provided by Height Modernization can provide a common, consistent set of real-time geographical coordinates, or reference points. The increased density and rehabilitation of the existing vertical control network, together with the positive by-product of an increased density of the existing horizontal control network will provide an overall cost savings and increased accuracy of heights for an extensive list of applications. For more information please visit www.coloradoheightmod.com.

# Colorado Revised Statutes PERTAINING TO LAND SURVEYING In a convenient, plug-in 1 GB USB Flash Drive

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# Announcement – the PLSC proudly presents:

## PLSC FALL TECHNICAL SESSION November 12, 13 & 14, 2009

Driscoll Center North University of Denver 2050 East Evans Avenue, Denver

Mark your calendars! Prepare to network! Make plans to attend and join the distinguished faculty and your fellow PLSC members at the 2009 Fall Technical Session. Enhance your knowledge, skills and career with the latest training at this once-a-year opportunity

Preliminary Program – PLSC members will receive email updates and registration details in late summer, or go to <u>www.plsc.net</u>

Thursday November 12, 8:00 a.m. – 5:00 p.m. Easements, acquiescence and the new changes to the Colorado adverse possession law.

By Dave Pehr, Esq.

#### OR

Orthometric heighting with GPS.

By Thomas H. Meyer, Ph.D., Associate Professor of Geodesy, University of Connecticut



# Friday November 13, 8:00 a.m. – 5:00 p.m.

## Mineral survey retracement class.

The presentation will include an overview of mineral surveys in the morning and delve into several case histories in the afternoon.

By Gene Kooper, PLS

- Second class to be determined
- Technicians class topic to be determined
- Computer lab topic to be determined

## Saturday November 14, 8:00 a.m. – 12:00 p.m. PLSC Annual Membership Meeting



GIS in the Rockies 2009 is a leading GIS conference creating a forum to foster collaboration and education related to important topics, emerging trends and innovations across the geospatial community. With the growing news about the national and world economy, how do we learn to brave the storm, increase our efficiency, integrate technology into our daily solutions, and grow our audience, clients, partners, and organization? GIS in the Rockies, held in the Denver, CO area September 16 - 18, 2009, can help by focusing this year on "Spatial Solutions for the New Economy." Find out more at www.gisintherockies.org.



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# The PLSC extends congratulations to the following new Professional Land Surveyors as of 17 June, 2009:

Spencer James Barron, Colorado Springs; Kevin Blake, Trinidad; Michael Regis DeWitt, Highlands Ranch; Jay Quinton Drake,Lander, WY; Christopher Raymond Duda, Littleton; John Benjamin Elliott, Grand Junction; James Jeffrey Fink, Durand, MI; Brian Keith Foredyce, Castle Rock; Jacob Stone Frisch, Broomfield; Elwood Barry Giles; Meeker; Thomas Martin Girard, Arvada; Alan Scott Greenberg, Boulder; Joseph Jeffie Hefner,Pittsford, NY; Douglas Robert Howe, Brighton; Philipp Herbert Hummel, Denver; Robert Stephen Kersey, Sedalia, MO; Anthony Lee Knievel, Gillette, WY; Shaun David Lee, Denver; Jason David Levanen, Sheridan, WY; Nathaniel John Maestas, Pueblo; Chris Gerald Moore, Layton, UT; Aaron W. Murphy, Denver; Arnold August Potthast Steamboat Springs; Miguel Antonio Romero, Littleton; Glen Ray Russell, Aztec NM; Thomas William Shaughnessy, Colorado Springs; Jamie A. Shields, Hesperus; Eric G. Wahlig, Boulder; James Vernon Weakley, Clarksville, TN; Randy G. Zerr, Aurora.

# And to the following for getting their LSI certificates:

Joshua Bruce Jones, Denver; Devon Matthew Arnold, Arvada; David John Berglund, Loveland; Mark Steven Britvec, Grand Junction; Chase James Corbridge, Loveland; Michael LelandCuppy, Pueblo; William Thomas Foster,Durango; Jason A. Hannahoe, Boulder; Jerremy Paul Harris, Greeley; Roberto H. Hinojosa, Durango; Lee Gallery Hooper, Littleton; Rodney Paul Kiser, Glewood Springs; William Stephen Kitlica, Colorado Springs; Heather Marie Lassner, Johnstown; Andrew Richard Lewis, Ridgway; Nicholas Ryan Lewis, Thornton; Anthony James Martin, Alamosa; Michael A. Nastal, Silt; Michael James Noffsinger, Englewood; Robert Charles Pfeiffer, Winter Park; Thomas Gene Savich JR., Steamboat Springs; Brian Scott Socia, Westminster; Dustin J. Stevens, Glenwood Springs; Sanford Myron Zeller Stretton, Pagosa Springs; John Walter Thompson III, Wray; Brian M. Wakefield, Torrington, WY.

The PLSC extends a complementary membership, including four issues of *Side Shots*, to all new LS and LSI recipients, with the hope that they will get involved in our organization and become regular members thereafter.

# Now Available

A masterful documentation and historical perspective of each initial surveying point for federal public lands in the United States. Published in 9x12 format, Initial Points of the Rectangular Survey System features a 4-color section with more than 130 photos depicting monuments and landmarks.

Number of copies	Price
1	\$89
2-5	\$79
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# C. Albert White's second book, **INITIAL POINTS** OF THE RECTANGULAR SURVEY SYSTEM

Never before, in the history of surveying, has so much pertinent and interesting material been so meticulously compiled in one publication. (White personally visited EVERY Initial Point.)



Mr. White's first book, A History of the Rectangular Survey System, published by the BLM in 1983, is considered the definitive work on the U.S. Public Land Survey System. Arguably the most distinguished authority on the history of nineteenth and twentieth century public lands surveying, White began his career with the General Land Office in 1946. Both as BLM and a private surveyor, he applied his zeal to a wide range of activities. White's expertise represents a bridge between the wisdom and experience of the American heritage of land settlement and the contemporary uses of surveying technology.

Published by the Colorado Professional Land Surveyors Educational Foundation, Inc., a non-profit foundation, Initial Points of the Rectangular Survey System is undertaken in the spirit of, and dedication to, Mr. White's remarkable contributions to his field. Net proceeds from its sale will be returned to the educational foundation.

# Update from Metropolitan State College of Denver's Surveying and Mapping Program

This spring and summer, Dr. David Gibson, professor of Geomatics at the University of Florida and an expert on Surveying and Geomatics programs around the nation, has continued to assist us in redesigning Metro State's Surveying program. Dr. Gibson visited Metro State's campus on July 13 to present the newly-developed curriculum to campus officials and to the Surveying Advisory Committee. The curriculum incorporates much updated content reflecting current Surveying theory and practice, and also includes several GIS courses offered through the department of Earth and Atmospheric Sciences. Dr. Gibson included detailed course syllabi and catalog descriptions for the revised Geomatics/surveying courses. The advisory committee was very enthusiastic about the revised and improved curriculum.

Unfortunately, a gloomy budget picture for Colorado higher education makes implementation of the new curriculum uncertain for the immediate future. This is because Metro State is not in a financial position to begin the search process for a new full-time professor to lead the program.

## July 15, 2009

On a brighter note, one part of Dr. Gibson's work can be implemented immediately! This summer he is developing two demonstration distance courses using online delivery. These courses are SUR2520 (Surveying II) and SUR2550 (Survey Computations). The two new demonstration online courses will be completed and offered in the fall semester 2009, and Dr. Gibson will be the instructor. These two courses will significantly improve the learning experience for our distance students.

This summer we are also planning to move the Surveying program to its new home, the department of Earth and Atmospheric Sciences in the School of Letters, Arts, and Sciences. This will allow the Surveying program to build on the existing GIS expertise in the EAS department. For now, the program will continue to be called "Surveying and Mapping." After we are able to hire a new faculty leader the name of the major will be changed to "Geomatics" and the curriculum developed by Dr. Gibson will be put into place.

We are pleased with the new part-time faculty we have hired dur-

ing the past year to teach a number of the existing Surveying courses. For the most part, these new faculty come from the professional surveying community, which gives them real world experience in addition to their academic credentials.

We continue to appreciate the strong support for Metro State's Surveying program that we have received from the Professional Land Surveyors of Colorado. We look forward to reporting on our ongoing progress, and welcome any questions or comments you have. I would also appreciate any letters or emails of support for the Metro State Surveying program from the Surveying community. These will help us make the case for the program! Please send these statements of support to the address or email address below.

Thank you. Carol Svendsen Assistant Vice President Extended Campus Metro South 5660 Greenwood Plaza Blvd, Ste. 100 Greenwood Village, Colorado 80111 svendsec@mscd.edu 303-721-1313

# **DID YOU KNOW.....** World's Oldest Man was a Land Surveyor

Tomoji Tanabe, formerly the world's oldest man, certified by the Guinness Book of World Records two years ago, died on June 19th, 2009 at the age of 113.

Mr. Tanabe was a former city land surveyor in Miyakonojo, on the southern Japan island of Kyushu. A statement issued by the city said that his favorite meals were fried shrimp and Japanese miso soup with clams. It also said he drank milk, avoided alcohol, was a non-smoker and read the newspaper every morning.

It is not known if his profession as a land surveyor contributed to his exceptionally long life. But in these stressful times, it gives the rest of us hope that we made a wise choice of a profession in the interest of longevity. - *editor* 







# 2010 Colorado Refresher Course

The Central Colorado Professional Surveyors, Professional Land Surveyors of Colorado, and Metropolitan State College of Denver Surveying and Mapping Program are offering a comprehensive Land Surveying Refresher Course for 2010. This course offers a review and self-study plan for those taking the NCEES Fundamentals of Surveying and Principles and Practice of Surveying (which includes the Colorado specific) examinations. The course is specifically designed as a <u>refresher class</u> to aid candidates in *developing and expanding exam-taking proficiencies*.

## **Refresher Course Schedule**

#### Fundamentals of Surveying

Session	Date	lopic
1	Wed., Jan. 6	Overview NCEES/Colorado Exam, Basic Calculations
2	Wed., Jan. 13	Trigonometry/Algebra
3	Wed., Jan. 20	Horizontal & Vertical Curves
4	Wed., Jan. 27	Photogrammetry
5	Wed., Feb. 3	Geodesy
6	Wed., Feb. 10	U.S. Public Land Surveys I
7	Wed., Feb. 17	Legal Terminology & Definitions

#### **Principles of Practice and Colorado Specific**

8	Wed., Feb. 24	U.S. Public Land Surveys II
9	Wed., Mar. 3	Colorado Law I
10	Wed., Mar. 10	Colorado Law II
11	Wed., Mar. 17	Business, Ethics, Prin. & Practices
12	Sat., Mar. 20	Mock PS and FS Examinations

#### Location and More Information

The Colorado Refresher Course will be held at the Auraria Campus in downtown Denver. Look for registration and additional information to be posted at <u>http://www.colorado-surveyors.org/</u> this summer.

# **PLSC Board of Director's Meeting Minutes**

May 15, 2009

City Building, 250 N. 5th Street, Grand Junction, CO.

Call to Order: 1:15 P.M.

#### Recognition of PLSC Board Members and Officers Present:

**Present:** Tom Adams, Michael Greer, Diana Askew, Micheal Bouchard, Doug Berling, Roger Nelson, Russell Clark, Patrick Green, Stan Vermilyea, David Freienmuth **Absent:** Gary Gable, Warren Ward, JB Guyton, Dave Difulvio

*Welcome of Guests:* Tom Sylvester, Sheila Sylvester, Rick Mason, Jim Sommerville, Peter Krick, Sara Krick, Jerry Hetzel, Richard Bullen, Mark McIntyre

#### Approval of Minutes from Previous meeting:

Motion: Roger Nelson moves to approve. Mike Bouchard seconds. No discussion. Vote: unanimous approval

#### Reports

#### Secretary-Treasurer, Diana Askew

Financial Report (see chart below)

Status of 2008 Tax Reports and Audit: completed <u>Action Item</u>: Stan Vermilyea and Micheal Bouchard will look into consolidating the scholarship funds by the end of July

Action Item: Di will send the scans of the fund account reports to Stan and Micheal

<u>Action Item:</u> Doug Berling and Tom Adams will write a promissory note regarding the PLSC loan from CSEF, which will be given to the CSEF Board by the end of July.

#### **Executive Director, Diana Askew**

Diana proposes the end date for 2009 memberships to be July 1, 2009. The purpose is to value those who renew or join before the April 1 deadline with the benefits of PLSC Memberships, including the discount registration for the fall Technical Session and to save the expense of mailing past copies of Side Shots to delinquent members (printing, time, and postage). *No motion necessary; however the vote board approval is unanimous.* 

Diana contracted to have a watertight 10'x12' frame shed with a metal roof built for the PLSC. Diana will pay the insurance on the shed and maintain it for the PLSC. The shed will provide storage of documents and other PLSC owned materials which are currently stored in Gene Kooper's garage. Diana asked the PLSC Board to meet in mid June to move the items from Gene's garage to the shed. Diana requested a fair reimbursement for the cost of storage.

Motion: Dave Freienmuth moves for an amount of \$50.00 per month. Russ Clark seconds. Discussion: Members of the board asked if that is enough to cover the costs of maintaining and insuring the shed for the PLSC. Diana indicated that that amount is fair. Vote: unanimous approval

Roster ideas – Diana proposed to email a PDF roster to the membership.

(Includes unrealized gains) as of 4/30/209									
	12/31/2008	1/31/2009	2/28/2009	3/31/2009	4/30/2009				
Account	Balance	Balance	Balance	Balance	Balance				
Bank Accounts									
Checking at Wells Fargo - Main	68,089.14	77,292.53	75,990.14	68,334.44	65,918.51				
CSEF Checking at Wells Fargo	13,458.18	13,458.70	13,459.16	3,459.48	3,459.48				
CSEF Savings at Wells Fargo	40,069.18	40,082.63	40,094.33	50,116.02	50,116.02				
Merchant Checking at Wells Fargo	9,531.61	15,516.00	26,884.14	8,056.98	10,928.73				
	0.00	0.00	0.00	40,006.57	40,006.57				
TOTAL Bank Accounts	131,148.11	146,349.86	156,427.77	169,973.49	170,429.31				
Investment Accounts									
Investments at Merrill Lynch	18,211.45	18,167.45	18,043.50	18,230.25	18,230.25				
Roger Patterson ICA Fund	18,187.68	18,187.68	17,473.74	17,461.98	17,461.98				
Roger Patterson WMI Fund	19,036.59	19,036.59	17,866.95	17,481.35	17,481.35				
TOTAL Investment Accounts	55,435.73	55,391.73	53,384.20	53,173.59	53,173.59				
OVERALL TOTAL	186,583.84	201,741.59	209,811.97	223,147.08	223,602.90				



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- 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

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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.

Motion: Mike Greer moves to allow Diana to email a PDF roster to the existing membership. Roger Nelson seconds. Discussion: Doug would prefer that a printed roster be mailed to the membership. He is concerned about the possible use of a PDF roster as well. The board feels a PDF roster is similar to a printed roster and the printing and postage costs will be substantial. Vote: 1 opposed, 9 approved-motion approved. Action Item: Tom and Di will work on the Executive Director job description together. Tom will contact Gene and get whatever he has from him.

#### President, Tom Adams

Goals for the 2009 Board of Directors (tabled).

Membership Dues: A vote was made to raise dues based on a certain formula of neighboring states. The formula could not be precisely applied mainly due to a different dues structure. The board needs to come up with how to apply the dues.

Discussion: Most of the states include a chapter membership in the dues amounts. Some states assign a chapter depending on the location of the member as well. The PLSC memberships will now include a chapter membership. Each member will choose the chapter when they join or renew. Additional chapter choices will be extra. Out of state members will pay the full price for membership and will need to choose a chapter to join. The chapters will continue to get a disbursement of \$20 per member from the Treasurer.

Action Item: Tom will look at the math regarding the dues structure and send it out to the board for review and comment. The dues rate for 2010 will be agreed upon via email.

#### NSPS Governor – Warren Ward

The ACMS is seeking funding from congress for the TrigStar program. Colorado has poor participation, so we need a champion to take up the cause. The TrigStar program will become part of the education committee's duties. Dave Freienmuth (chair) will follow up with the new list of volunteers gathered during new memberships or renewals. Diana will send out an updated list (last list sent on 3/25/2009).

Shall the PLSC send Warren Ward to the next NSPS meeting *Motion: Roger Nelson moves to approve up to \$1,500 to help cover Warren's expenses. Dave Freienmuth seconds. No discussion. Vote: unanimous approval* 

Railroad Monumentation Action Item: on behalf of the PLSC Inc President to send a letter to our congressman regarding Railroad Monumentation

PLSC student and staff member funding for the 2010 BSA Jamboree

#### Motion: Dave Freienmuth moves to include \$695 in the 2010 PLSC budget for the 2010 Boy Scout jamboree. Mike Greer seconds. Vote: unanimous approval.

Action Item: Diana will contact the NSPS and offer to send a student for their surveying merit badge in 2010.

# WFPS Delegates Dave DiFulvio and JB Guyton

The next meeting is in Reno and they are both going. The travel and lodging expenses will be reasonable for this trip and the PLSC will reimburse them both for their expenses.

There is a meeting in Hawaii in 2010. Will the PLSC cover any or all of the travel expenses for one or both of them? Discussion: We can send just one of them or approve an amount that they can share toward their expenses.

Motion: Roger Nelson moves to fund up to \$1,500 towards the expenses for the Hawaii WestFed meeting. JB and Dave can share the funds if they both choose to attend. Pat Green seconds. Vote: 9 yea, 1 nay; motion approved.

MSCD Surveying and Mapping Advisory Council, JB Guyton, Chair

#### **CSEF – Mike Bouchard, President**

Further discussion regarding the CSEF Bylaws and the association with the PLSC.

#### Standing Committees

#### Legislative Committee - Roger Nelson, Chair

Does the PLSC have any legislation that it wants to be worked on for the next session? If yes, the PLSC will need to fund Peg Ackerman.

Motion: Roger Nelson moves to fund Peg Ackerman based on her previous proposal through 2009. Dave Freinmuth seconds. Discussion: Tom supports funding Peg. Vote: unanimous

The PLSC Board will discuss proposed legislative items to pursue before the committee spends time preparing them for legislation. Each of the proposed legislative items will be voted on.

Require adjudicated property/ corners/lines/boundaries to be recorded? Vote: yea

Monuments on Bases of Bearing? Vote: nay

Signature of all pages of descriptions/documents? Vote: nay

Definition of plats? (item 4) Vote: nay

Draft legislation to increase education requirements? Vote: yea <u>Action Item:</u> By the first of June, Tom will email a list of the 3 proposed education requirements to the chapters so everyone can comment – Tom will forward the comments to the legislative committee.

Legislation regarding county surveyor compensation? Vote: nay

ILC Side-Ties legislation? The PLSC Board has no position on this.

Amending 38-51-1-6(i)? Vote: yea

#### Motion: Roger Nelson moves to fund jump drives with the CRS Pertaining to Land Surveying preloaded on them for an amount not to exceed \$3000. Patrick Green seconds. Discussion: The drives will be a door prize at the Fall Technical Session and will be offered for sale on the PLSC.net Web site as well. This will replace the out of date "blue book." Vote: unanimous

Education subcommittee -Warren Ward

#### Survey Monumentation and Standards, Chair Russ Clark, Chair

The committee will resubmit the monument legislation with a few revision for consideration by the PLSC Board.

# Membership Committee, Mike Bouchard, Chair

Mike will work with Diana Askew to offer a memberships certificate to new licensees and new SIT's for 2010.

# Ethics and Fair Practices, Patrick Green, Chair

Patrick wants to look into an ethics program.

# Education Committee, Dave Freienmuth, Chair

Members, Mike Greer, Gary Gable, Tom Adams.

Annual Conference: Members to include Executive Director <u>Action Item:</u> The Education Committee will start working on the Fall Tech and get an ad in the next issue of *Side Shots.* 

#### Special Committees

Trig Star – need volunteers. GIS-In-The-Rockies – There are more people signed up early than in any other year.

#### Unfinished and New Business

Bylaws – the Executive Committee will discuss the updates to the bylaws and disseminate to the chapters before asking for a vote of the membership.

Surveyor door-hangers – JB has offered to develop this and he needs a go ahead to create them – the PLSC Board has no opinion.

*Next Meeting:* time and place Merrick is offering the conference call number for Tom to have an interim meeting Thursday the 18th of June.

Adjourn: 6:45 PM

#### **Respectfully submitted:**

Diana E Askew, PLS PLSC Secretary-Treasurer



# CCPS

The CCPS 2010 spring technical session is in the planning stages and we encourage topic or speaker suggestions from the membership. This year specifically we are coordinating with the PLSC and other chapters to minimize or eliminate duplicate topics and provide a unique and meaningful conference for professionals and technicians to improve their knowledge and understanding of the business of surveying. Any suggestions can be provided to the CCPS website or to any Board of Directors member. Last year's conference was challenging due the weak economy and we desire to make this year's effort a success with meaningful presentations & discussions.

The CCPS BOD is actively pursuing a realignment of the chapter as part of the state society, the PLSC. We are looking at modifying our ongoing operations to more appropriately fill the role as a chapter of a state society instead of a separate entity. Items such as conferences, scholarships, and special projects are being reviewed to most effectively provide the most bang for the buck for PLSC and CCPS members.

Our May general meeting included Alan Blair, PLS as guest speaker and Total Positioning Solutions as guest vendor. Alan provided a summary of an interesting survey project that the FHA was involved with in Devils Lake, North Dakota. Thanks to our vendor member who updated the group on their operation and donated items for door prizes.

The next CCPS general meeting will be at the Southeast location, the Doubletree Hotel near I-225 and Illiff Avenue in Aurora on Thursday, August 27, 2009 at 7:00 P.M. Free dinner begins at 6:30 P.M., cash bar opens at 6:00 P.M. Guest Speaker: Gene Kooper, PLS, PLSC board member, will be discussing the current status of the continuing education legislation being reviewed by the PLSC. This topic has sparked a number of lively discussions and all are invited to attend and participate. Guest Vendor: ESRI. General membership meetings are held on the fourth Thursday of the following months: January, March, May, August and October.

The CCPS welcomes Aaron Willis as the 2009-2010 Treasurer and would like to thank Kurt Ernstberger for extending his tenure as Treasurer until a replacement was installed. We also welcome Chris Raml as a director for 2009-2010 completing the CCPS Board of Directors.

CCPS will be awarding a scholarship at the August general meeting.

Continued thanks to Alan Blair, PLS who is the CCPS web master who assists in the maintenance of the web site - we greatly appreciate all of your efforts Alan!

The next Board of Directors meeting will be held at: Earl Henderson's home in Boulder on Thursday, July 9, 2009 at 6:00 P.M. Board of Directors meetings are held on the first Thursday of every month.

> Todd G. Beers CCPS President

## CSRN

The Colorado Spatial Reference Network held its Open Board and Open General Meeting on June 24th. The meeting was hosted by Merrick & Company, Presentations were given by Ken Perry, with Hixon Manufacturing & Supply regarding Leica's SpiderNet best practices; Brennan O'Neill, with O'Neill's Positioning Services on data communication via Intuicom's RTK Bridge; and Joe Kunches, Space Scientist with NOAA's Science and Technology Infusion Branch on Space Weather and its impact on GPS.

The CSRN website has been updated through a partnership agreement with Bohannan Huston under the leadership of their vice president Johnny Olson. The latest information on real time reference networks located in Colorado is now available at www.CSRN.us.

The CSRN released its Network

GPS Real Time Positioning Best Practices flyer. It includes a modified version of NGS's "Seven C's". The complete flyer may be viewed and downloaded from the CSRN homepage.

The CSRN is working closely with the organizers of the upcoming SCPLS Fall Workshop September 11-12 and GIS in the Rockies September 16-18 to bring several informative presentations to each.

The CSRN board unanimously approved to begin collecting annual CSRN membership dues for PLSC members effective January 1, 2010. A final decision regarding membership dues for non-PLSC members (e.g. members of the GIS community) will be made at the next CSRN Open Board meeting on August 26. Additional information may be found in this publication.

If you are interested in further developing the CSRN and advancing real time reference networks in Colorado please contact us through our website.

> Dan Smith CSRN President

# NC/PLSC

The Northern Chapter is on summer break until September. Our next meeting is September 2nd from 6:30-8 P.M. As usual, our meetings include a light supper followed by Chapter business and a technical session. Come help us plan the 2009-2010 agenda. We'd love to see as many Northern Chapter members as possible since we need to welcome our new officers. We also encourage other Chapter members and guests to attend. Please e-mail Rob Hintz (rhintz@fcgov.com) if you would like to attend but are not on our e-mail list so we can send out the location and can plan to have a large enough room and plenty of food! There is no charge to attend. Laine Landau

Director

## NW 1/4

The NW 1/4 met May 1st at the Holiday Inn in Craig, Colorado. In attendance were Jim Joy, Leif Joy,

# CHAPTER NEWS

Peter Epp, Gordon Dowling-President, presiding, Tom Effinger, Skidge Moon, Josh Lowe, Lloyd Powers, John Noonan and Brian T. Kelly. We quickly reviewed the Treasurer's Report and past minutes and the meeting ensued.

The first topic of discussion was the Owner's Affidavit, a matter we sent on to the State Board for clarification. We felt these Owner's Affidavits sidestepped the legalities of a true survey and apparently the matter has been reviewed nationally, most notably in Florida. We understood that the Owner's Affidavit was not a survey.

The next item of discussion is the fate of Metro State. Quite a bit of the PLSC funds are tied up in scholarships and commitments to this program, which now appears to have an uncertain future. What is the actual ledger sheet related to this matter? What is the future of the program and its accreditation?

The evening's main topic was Elevation Certificates, presented by John Noonan. His first note is that common sense typically goes out the window when it comes to FEMA. Once an area is mapped incorrectly, it is gospel until proven otherwise. John went over the effects on FEMA and elevation certificates since Katrina, sources of information, how to access it, the latest forms, and how the system works - or doesn't work. It was an extremely informative session and clearly presented.

Respectfully submitted, Brian T. Kelly, Sec.-Treasurer

# SCPLS

The 21st Annual Paul Grout Memorial Golf Tournament & Picnic will be held on Saturday, August 8 at the Hollydot Golf Course in Colorado City. It is an 18-hole, 4 person scramble tournament. It is always a great time to get together with other surveyors from around the region to play golf and catch up with each other at the picnic afterwards.

Details are available on our Chapter page at www.plsc.net, or you can email Bill Brooks at banddbrooks@q.com to get a copy of the flyer.

Our Fall Workshop is planned for Friday and Saturday, September 11 & 12 at the Academy Inn in Colorado Springs. Topics include a discussion of the next edition of the BLM Manual, a presentation by the Small Business Administration, and training on AutoCAD Civil3D. During lunch on Saturday there will be a GPS Network User panel discussing their experiences and answering your questions. Various vendors will also present sessions highlighting the latest surveying technology. Tentatively scheduled is a session by the US Army Corps of Engineers discussing small business opportunities.

Workshop information will be available on our Chapter page at www.plsc.net.

Thank you, Mark Johannes President, SCPLS

# Invest In Your Future

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The Professional Land Surveyors of Colorado, Inc. (PLSC) recently entered into a Partnership Agreement with Metropolitan State College of Denver.

The agreement will benefit everyone in the real estate and surveying communities who depend on quality surveying work to help their businesses thrive.

 $\mathcal{A}$ s part of the agreement, funding will be provided to Metro on behalf of the school's Surveying and Mapping Program. The funding will help the program to achieve the highest academic standards and ensure quality surveying work in Colorado for years to come.

Please send your donation to: Colorado Surveyors Education Foundation, Inc. c/o Diana Askew, PLS PLSC, Inc. PO Box 704 Conifer, CO 80433

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# C H A P T E R N E W S

## SWC/PLSC

Our annual June seminar was once again a successful event. Attendance was not as good as in past years but the speakers generated a lot of conversation during the breaks. I would like to thank our speakers John Stahl, Michael McInnis and Randall Zanon for the great job that they did. I would also like to thank everyone that attended including the vendors.

Our next chapter meeting is tentatively scheduled for August 13, 2009 in Durango. It will be a normal business meeting with the nomination of new officers to take place. I am urging all members to attend and get involved in your local chapter.

> Thomas E. Au, PLS President, SWC/PLSC

# WCLS

Not much happening on the western slope besides survival. We did host the PLSC/WCLS joint summit and it was a general success. Our member participation was disappointing even after sending out prior notice. But those who did participate had some great questions and discussion. Our next meeting on July 10 is a picnic. Hope we get some feedback on that. We certainly appreciate the PLSC leadership's efforts to come out this way and we hope for more opportunities.

> Rick Mason President WCLS

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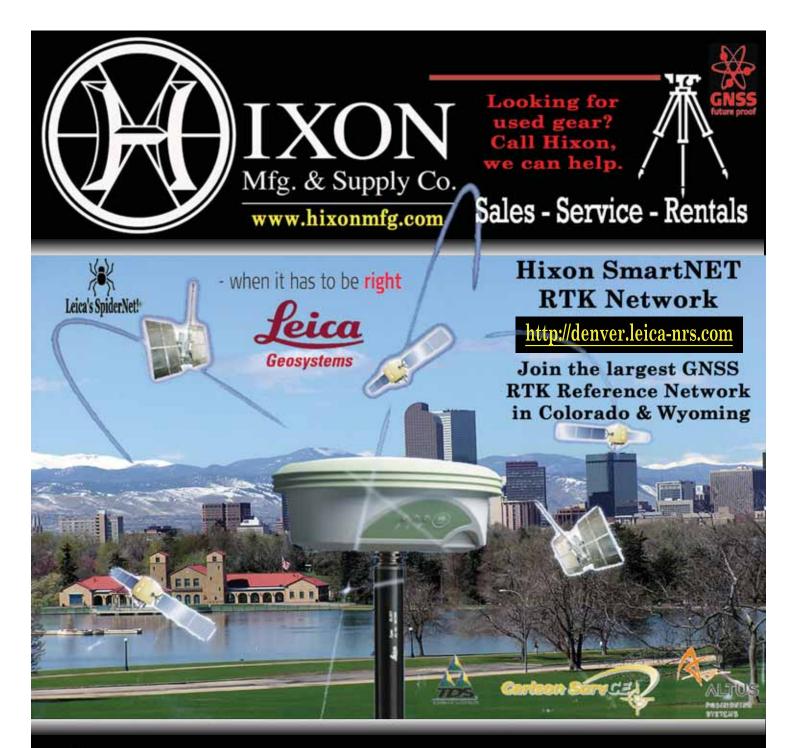
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