

February 2009

# SIDE SHOTS

Professional Land Surveyors of Colorado

Volume 40, Issue 1



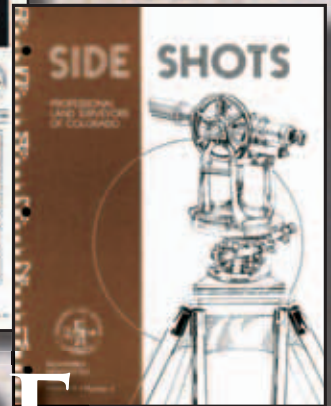
1968



1980



1980



1984

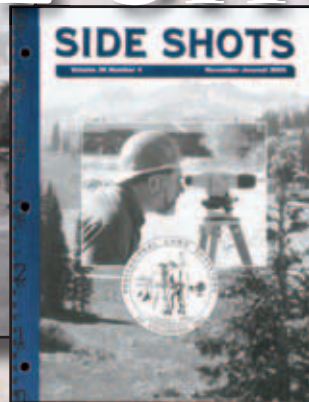
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# SIDE SHOTS

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

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Dear Fellow Members:

Who knows what the New Year will bring, what with 2008's political changes, the war(s), the financial crisis, and many other occurrences? The PLSC has gone through a number of changes and epiphanies as well. Since the loss of Art Hipp, the board of directors is learning from some of the financial and policy issues of the past, and making necessary corrections. Personally, I have begun reading some of the first issues of *Side Shots* to learn of the discussions and issues back in the earlier days of the PLSC. We are discussing many of the same things today.

Many thanks are due to the exiting directors of the PLSC. Former PLSC President, JB Guyton will be an advisory member of the PLSC Board and has agreed to stay on as the Editor of *Side Shots*. Even watching what JB has had to go through to prepare an issue of *Side Shots* has made me realize what Art had down to an art and a science. Thanks to JB as well for keeping me informed as to the duties and issues he dealt with as president. I believe JB has breathed new life into the purpose and functions of the PLSC.

I am hoping that we can further improve the communication between the general membership and the PLSC Board of Directors. The PLSC has a message board for different subjects at [www.plsc.net](http://www.plsc.net) (click on the "forum" link). This is one way to open discussions of what is of concern to the membership with the current PLSC Board of Directors.

I hope to start discussions on some current legislative issues being studied by the PLSC Legislative Committee. Two of these considerations are changes in the standards for "Improvement Location Certificates" and changes in the laws regarding continuing education. These are two extremely important issues to many surveyors. Also coming up are issues regarding the four-year degree program. Please go to the discussion forum at [plsc.net](http://plsc.net) to express your opinion on these and other issues. Your views will be seen by members of the PLSC board.

Other issues that might be discussed at the forum or in a letter to the editor might be regarding raising the education requirements for licensure and raising membership dues. The PLSC has not raised dues for many years. We have recently suffered financial losses. I believe we have tightened our collective, proverbial belts and pulled out of that immediate concern, but one of the issues on the table is to raise dues. In spite of the fact that many other states charge more money than our Colorado organization does, and the fact that the dues have not been raised for a number of years, the current economic atmosphere suggests the timing may not be right. Should the PLSC raise dues and risk loss of membership, or hope to not lose many members and thus be able to afford better legislative and other representation that benefits all?

What about raising education requirements? This has always been a controversial issue with surveying. Is requiring a higher degree of education required "in order to safeguard life, health, and property and to promote the public welfare"? Are too many of land surveyors under-educated? Do we, as a professional community, adequately represent our profession? Would academic education improve this? I have gone from looking at this from a selfish standpoint, to becoming uncertain, to thinking that professional land surveyors should all have a well-rounded academic education. What do you think? Please let your organization know and get your voice heard.

Sincerely, Tom Adams, PLS

DEDICATED TO THE IMPROVEMENT OF LAND SURVEYING EDUCATION AND PRACTICE.

The President's Letter is now in the capable hands of our newly elected President of the PLSC, Tom Adams, as you can see. Tom and members of the board have asked me to continue as Editor of this publication, and I enthusiastically agreed. In accord with the old saying that "everything old is new again," I have decided to revive the traditional editor's column, pioneered by Art Hipp in his "Editor Sez" feature. While Art spent many of his columns imploring members to send in their dues payments, my intent is to focus on the features and issues surrounding *Side Shots*.

This first issue of 2009 includes some interesting new articles, including an installment by Warren Andrews about astrolabes. As a history buff, I found it particularly interesting. Our new President, Tom Adams, has contributed a piece about calibrated baselines in Colorado, worthwhile reading for those of you needing to calibrate equipment. Professor Gaby Neunzert

wrote about how our maps and plats should have visual appeal, or "pizzazz," to which I heartily agree. Former Marine Dean Glorso has written a piece about the need for streamlined bureaucracies to get us through these tough times and on the road to an economic recovery. And Charlie Adams has provided us with another informative update from the State Board of Licensure.

We have also included notices of the CCPS Annual Conference and the Metro State 2009 Refresher Course, as well as the latest BLM cadastral survey letter. You can also find the minutes of the most recent PLSC board of directors meeting, and all the latest from the individual chapters. This issue marks the 40th anniversary of *Side Shots*, as researched and explained below by our former Executive Director Gene Kooper, PLS. The mailing label has been moved to the cover to make room for a color advertisement on the back – our advertisers help with production

costs and deserve your attention and support.



We have also replaced the old membership application form with a graphic of our new and easy-to-use renewal form found online on the [plsc.net](http://plsc.net) website. Instead of pleading with some of you who are late to fill out the form and mail in your check, you can now just go online and pay with a credit card in a matter of minutes, or a check. And emails will be sent to those who are a little behind in paying from now on, making your membership renewals easier than ever to do.

Art would have been pleased.

JB Guyton  
Editor

## On the cover...

Blow out the candles... *Side Shots* is 40 years old.

The first issue of *Side Shots* was published in December 1968 with the stated objective (which continues to this day):

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

The first editor of *Side Shots* was Gerard H. Pesman who served in that capacity until the May 1971 issue when he assumed the duties of PLSC President. The other early editors were Walter Swackenberg (May 1971 through August 1972), Ted Rousses (October 1972 through February 1973), and Sharon Summers (May and August 1973). Warren Andrews assumed the editorial duties in October 1973 and served in that capacity until Art Hipp began his 32-year tenure in May, 1975. With Art's death in September 2007, John B. (JB) Guyton has served as editor.

Art was a gifted writer and also had a talent for persuading many surveyors to share their knowledge on "paper". As the editor of *Side Shots*, Art was recognized in 1983, 1989 and 2005 by the American Congress on Surveying and Mapping and the National Society of Professional Surveyors with their "Excellence in Professional Journalism" award. In a February 19, 1990, letter to Art announcing that he had won the award for a second time, Kenneth Curtis noted, "Congratulations! You have done a continuing excellent job for the Colorado surveyors! You are the first affiliate society to repeat as a winner in the fifteen years of its existence!" All three were richly deserved.

This issue's cover is a collage of eight past issue covers. Starting at the top, (left to right) is the first newsletter of December 1968, the August and May, 1980 issues (photographs of a bark-scribed Aspen tree and "Bearing House"), and the November 1984 issue. The bottom row includes the November 1993 (original artwork by Dyanne Strongbow created for the October 17, 1993 dedication of the Four Corners Remonumentation), May 2001, November 2005 and November 2008 issues.

# Colorado Calibration Base Lines: An Inexpensive Yet Accurate Tool Available to Surveyors

by Tom Adams, PLS

Availability of the large network of Calibration Base Lines (CBL's) in Colorado might be one of the most underutilized, inexpensive, and underappreciated ways to monitor, record and prove your electronic distance meter (EDM) and real time kinematic (RTK) equipments' precision and accuracy.

How many Colorado surveyors are aware of access to the many CBLs located throughout the State? I would be curious as to just how much they get used. Many surveyors who have worked on Colorado Department of Transportation (CDOT) projects are aware, because checking your measurement equipment on a CBL is a requirement for transportation projects per CDOT's survey manual. CDOT has collaborated with the National Geodetic Survey (NGS) and the PLSC to take on the

responsibility of making sure Colorado CBL's are continuously remeasured, maintained, open, and available. Colorado may be the most progressive, or at least *one of* the most progressive, states with an on-going maintenance and installation program for the CBL network. For quick research of this, you can visit the NGS website, <http://www.ngs.noaa.gov/CBLINES/calibration.shtml> and look up official CBLs for every state.

Calibration Base Lines are used to check your equipments' measurements between marks. The checking of your RTK equipment, of course, is only for checking distances between marks, and is not meant as a check of global coordinate accuracy. The process to recheck the CBLs is tied to the national standard of unit length maintained by the National Institute

of Standards and Technology. Procedures for establishing CBLs and using CBLs are similar, except the acceptable tolerances are much higher (more precise) for the establishment and re-measurement of them. To use a CBL properly for a complete evaluation of your instruments, you can find a publication on the NGS website, provided above, entitled *NOS NGS-10: Use of Calibration Base Lines*. The same site has a technical manual for *establishing* CBLs.

Of the different states I have perused on the website, Colorado is the only state that has installed or updated all of the 17 working CBLs within the last 5 years. The only states I found with more CBLs are Florida with 20 and Washington with 18. Neither of those states can boast of having remeasured all of theirs as recently as Colorado has.

BASE LINE DESIGNATION	STATE	COUNTY	QUAD
ALAMOSA CBL (2005 REMEASURED)	COLORADO	ALAMOSA	N371053
CHERRY CREEK CBL (UNUSABLE)	COLORADO	ARAPAHOE	N391044
CORTEZ CBL (2004 REMEASURED)	COLORADO	MONTEZUMA	N371083
CRAIG CBL (2004 REMEASURED)	COLORADO	MOFFAT	N401074
DURANGO CBL (2004 MEASURED)	COLORADO	LA PLATA	N371073
EL PASO CBL (2004 MEASURED)	COLORADO	EL PASO	N381044
FORT CARSON CBL (2005 REMEASURED)	COLORADO	EL PASO	N381044
HIGHLINE CBL (2004 REMEASURED)	COLORADO	ADAMS	N391044
KELIM CBL (2004 REMEASURED)	COLORADO	WELD	N401043
LAMAR CBL (2004 REMEASURED)	COLORADO	PROWERS	N381023
LIMON CBL (2004 REMEASURED)	COLORADO	LINCOLN	N391033
MEEKER CBL (2005 REMEASURED)	COLORADO	RIO BLANCO	N401073
MESA (2005 VERIFIED)	COLORADO	MESA	N391083
MONTROSE CBL (2005 REMEASURED)	COLORADO	MONTROSE	N381074
NEW CASTLE CBL (2004 VERIFIED)	COLORADO	GARFIELD	N391074
PINON CANYON CBL (2005 REMEASURED)	COLORADO	LAS ANIMAS	N371041
PUEBLO 2 CBL (2005 VERIFIED)	COLORADO	PUEBLO	N381042
STERLING CBL (2004 VERIFIED)	COLORADO	LOGAN	N401031

For a more contrasting comparison, the massive state of Texas has only five and some states have only one, such as Iowa, Missouri, and Nevada.

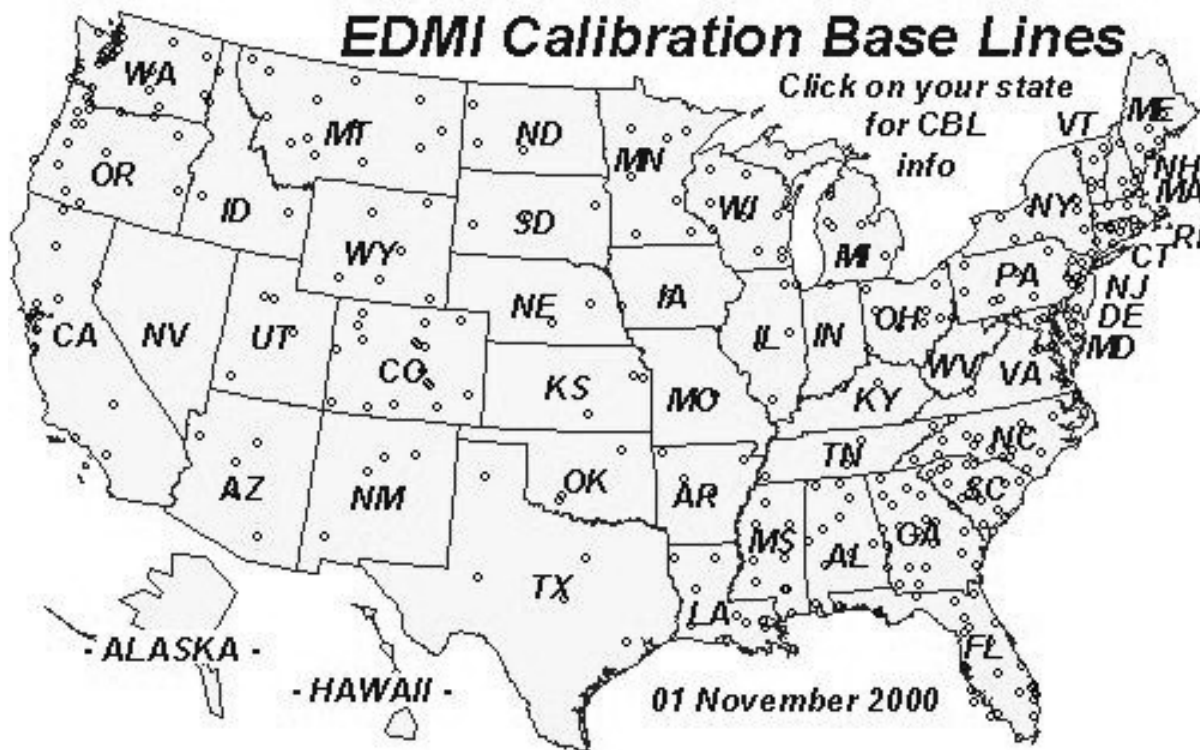
You might ask what the purpose is for updating the CBLs. In our last remeasurement effort, we found that there was movement at 11 of the 17 CBL's marks from the last time they were measured. The standard for installing marks is stringent, but it happens. A regularly updating and remeasuring between the CBL marks is imperative. It monitors the marks, as well as fostering confidence in the user's checking of their equipment.

Baselines are set up with four monuments. One is established as the 0m (meter) station and the others are spaced at approximately 150m, 430m, and 1,400m from the 0m station. For a complete calibration, an instrument is set up on each of the four stations and all the possible distances shot in both directions. Taking the measurements again on a different day and a different time of day will result in an even more thorough evaluation.

Additionally, NGS has free software called *CALIBRAT*, which can be found at "[http://www.ngs.noaa.gov/PC\\_PROD/CALIBRAT/](http://www.ngs.noaa.gov/PC_PROD/CALIBRAT/)". *CALIBRAT* is easy

to use and it will run your measurements through a least squares evaluation of the software and provides you the scale and constant corrections for your specific edm. The formulas used for this evaluation are published in their *use of CBLs* technical manual referenced above.

If you were not aware of Colorado's Calibration Base Lines, it is never too late to learn. If you have an idea for a location or want to report a problem with a Baseline, you might contact a CDOT survey coordinator in the region in which that CBL resides, or call the Colorado NGS Geodetic advisor.

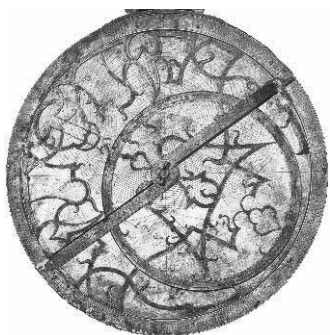


# Control Points

By Warren Andrews, PLS



*Three Capetian French scholars consulting an astrolabe, ca. AD 1200*



*A latter 16th-century astrolabe with the typical 'tulip' rete associated with the Arsenius workshop.*

Probably one of the longest used astronomical and surveying instruments is the astrolabe. The name derives from the Greek word *astro*, meaning star, and *labio*, meaning one who is searching, so it literally means a star finder. The Smithsonian reproduction that I have in my possession, dated 1602, is a heavy brass disc hung on a double swiveled ring for holding vertically by hand. It's just less than four inches in diameter and five-sixteenths of an inch thick. Among the several medieval variations this one is technically called a planispheric astrolabe. (Unfortunately the instructions that came with it for usage are in Spanish based on Medieval Latin from the ancient Arabic, which makes it a little awkward to figure out). It is an instrument used for the taking of altitudes of celestial bodies from which time and latitude are deducible. Because it uses angles it also is a surveying instrument.

Hipparchus of Alexandria, the astronomer who developed the concept of stereographic projection first mentions it around 150 B.C. Originally it was quite a feat to represent the apparent circular motion of the sun and stars on a flat plane taking into account the 23-1/2 degree tilt of the earth's axis to the plane of its travel around the sun. This was many centuries of observation by astronomers of the altitude and movement of the sun and stars through the year and how they changed and repeated.

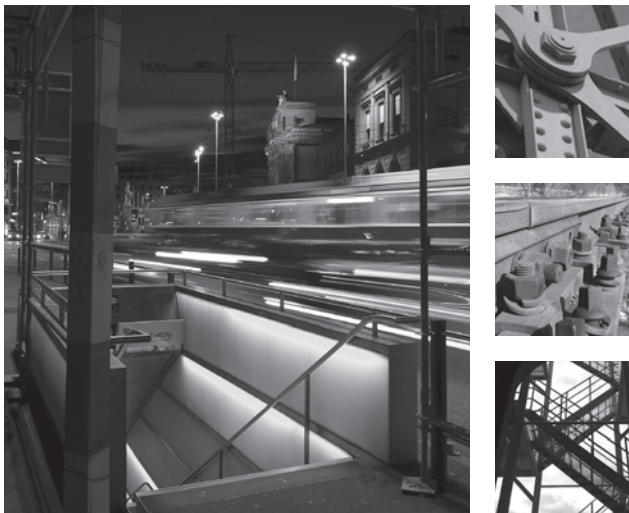
The Babylonian marking of the circle into twelve different signs of the zodiac and each one of those signs into 30 smaller parts is engraved on the astrolabe on both the front and back. On the back are engraved, within the zodiac circle, a circle of the months and days and on an outer circle surrounding the zodiac are degrees in quadrants from zero as horizontal. A centrally pivoted ruler or alidate on both front and back are used to measure vertical angles by eye when the astrolabe is hung on the finger. If turned horizontally and carefully referenced, the astrolabe could be used as an angular surveying instrument before the addition of a telescope came into being after Galileo. Engraved on the back also is a half square marked in twelfths; such that if the movable pointer toward the object lands on a twelve the height of the object is twelve twelfths of the distance from it. Other number ratios gave heights or distances from the observer before there were trigonometric tables. A modern analogy of the ancient astrolabe is probably the Brunton Compass with its clinometer.

There is a comprehensive article on "The Astrolabe" by J. D. North on pages 96 to 106 in the January, 1974 issue of *Scientific American*. Also Wilhelm Schmidt wrote a short article on "How to Survey with an Astrolabe" in the November, 2000 *Professional Surveyor* magazine for anyone who wants to pursue the subject.





How much work did you  
pass up this morning?



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# Would You Please Give Me a Copy?

By Gaby Neunzert, PLS and Professor of Surveying

Surveyors and maybe the Roman engineers who designed and then built roads and bridges to last a thousand years, are a very few professionals whose legacy probably exceeds their lifespan. For example Gerardus Mercator (1512-1594) the Flemish mapmaker and geographer comes to mind, whose elaborate maps, albeit nowadays less colorful than the original works, and his projection for State Plane and UTM Coordinates are still used every day, almost 450 years later. From the earliest time, maps became graphical and legal representations to land ownership and many a war was fought over land shown to “belong” to one nation or another. By dedicating a map to a specific sovereign, a mapmaker could even put his very life in jeopardy when war changed the political landscape. Mercifully the death threats are gone, but the legal implications are still inherent on maps and plats, as well as obviously on written deeds.

In general, American bridges are known for their gross functionality and the same can be said for a surveying plat which must have all the legal and statutory entries. It can be (and has been) argued successfully, that a deck, a guard railing and a box girder will make any size bridge, but where will that leave the Golden Gate bridge in San Francisco or the cable stay Sunshine Skyway bridge across Tampa Bay? Yes, a plat must have all the proper entries, but just like a modern bridge, a plat (or map) should have pizzazz, just simply appeal or by its technical term, visual impact. In the daily shuffle from the computer to the printer and maybe into a file drawer this is not evident, but attend a public hearing for the approval of a subdivision or a public construction and compare the “flat” drawings versus the drawings which have “appeal”. The visual image sells with a careful selection of fonts and their size, arrangement of paragraphs and signature blocks; does the title stand out or does it blend into all the text; maybe could the north arrow and the graphic scale be used to enhance the image or are both so fancy that they overwhelm the presentation? How is a person to know? Well, while visual perception is certainly individualistic, most people perceive similarly and comments for visual impact can be gathered by mounting several plats on a “white” wall in a hallway or conference room where the viewer stands about 6 to 8 ft away. Will visual impact cost money? Certainly, but for just a few seconds, when

you get off your chair and with a critical stare look at the “finished” product on the screen. Maybe your company’s practices are not necessarily the best when compared with the “competition”. And speaking of the positive “competition,” NSPS (National Society of Professional Surveyors) just announced the results of their annual MAP/PLAT Competition:

## ALTA/ACSM Survey Maps:

1st Place: Greenhome & O’Mara Inc., Chantilly, Virginia  
2nd Place: Flatirons Surveying Inc. Boulder, Colorado  
3rd Place: Taylor, Wieseman & Taylor, Cherry Hill, New Jersey

## Boundary/Cadastral Maps:

1st Place: Allegheny Surveys Inc. Birch River, West Virginia  
2nd Place: Whitley Land Surveying, Madison Georgia  
3rd Place: Flatirons Surveying Inc. Boulder, Colorado

## Miscellaneous Maps:

1st Place: Flatirons Surveying Inc. Boulder, Colorado  
2nd Place: Wilson Land Surveying, Pinedale, Wyoming  
3rd Place: USDA Forest Service, Anchorage, Alaska

## Subdivision Plats:

1st Place: AE2S, Grand Forks, North Dakota  
2nd Place: Allegheny Surveys Inc. Birch River, West Virginia  
3rd Place: B.P. Barber, Columbia, South Carolina

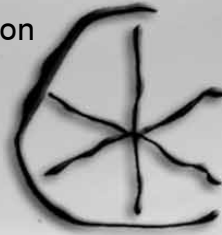
## Topographic Maps:

1st Place: USDA Forest Service, Anchorage, Alaska  
2nd Place: Allegheny Surveys Inc. Birch River, West Virginia  
3rd Place: H&C Surveyors Inc. Martinez, Georgia

Congratulations to all of the “competitors” above. Maybe by asking they will send you a digital copy of their entry, and you’ll learn from them, while they accept their awards and check for the 35th competition at the annual convention in Salt Lake City on February 20-23, 2009.

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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.

As 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  
Educational Foundation, Inc.  
c/o Diana Askew, PLS  
PLSC, Inc.  
PO Box 704  
Conifer, CO 80433

*Education is the Future!*

## Speed and Muscle of Response — An 'Economic Corp'

By: Dean F. Glorso, PLS

On this Veteran's Day I'm reflecting on my short stint in the United States Marine Corps, and my one year of service in the Vietnam War. With the economic hard times we are entering and the current change in administrations, I find myself coming to the realization of what is needed to survive these hard times.

In 1992, the year following the Gulf War, a study conducted by the Heritage Foundation determined that "for every [U.S.] Army soldier in a combat position, one soldier is behind the lines in such supporting roles as administration and supply; for Marines the ratio is two combatants to one administrator or supplier. As a result, the Marine Corps delivers the most firepower in the quickest time when responding to a crisis. ... The Marine Corps' greatest advantage over other services is the speed and muscle with which it can respond to a crisis."

**Speed and muscle of response is something all American businesses and government agencies should adapt from the Marine Corps to fight this "economic war" we're in.**

Just as every Marine is considered a rifleman, every member of a land surveying business should be considered a "gunner". With the changes in the technology, many of us in the profession have lost the ability to actually work in the field. It is time for all of us to consider getting back to our roots and stay abreast of the work that is being done in the field. In the Marine Corps, every man/woman must stay current with their ability to use a weapon. We as surveyors should also stay qualified for field work. In these economic hard times our talents and experience must be brought back to the field to insure our people who are working day to day are equipped and trained in the proper, most efficient methods of performing their jobs.

Recently I put in a proposal for two (2) days of survey work to a local government agency. The work itself was very minor, but the administration of the local government took six (6) weeks to get us in line to do the work. Our new president-elect has talked about starting more government infrastructure projects to stimulate the economy. The first thing that must happen in my mind, is for the government to streamline the process, so small businesses can actually benefit from this new work. The way government is structured now with mountains of paper work, the small business cannot cope with the administrative nightmare in obtaining this work.

It is my hope that all American companies and especially government agencies adopt streamlined approaches to fixing our economy. One way for government to accomplish this is to create an "Economic Corps" similar in training and attitude to the United States Marine Corps. A small unit of business professionals with muscle and speed of response are needed to attack bureaucratic agencies and show them the most efficient ways to fight this "Economic War".

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

by Charlie Adams, Program Director



Greetings and Happy New Year from all of us here on the Board staff. I hope 2009 is a safe and prosperous new year for everyone. I enjoyed speaking at the PLSC Fall Technical Conference at the University of Denver in November. I hope it was helpful for those who were able to attend.

## Architects Continuing Education / Continuing Competency (CE/CC) Work Group Update

In my last update, I talked briefly about the progress of the workgroup that the Board charged to develop draft rules regarding CC/CE for the Board's consideration. A public hearing on the proposed rules took place on November 14th at the regular Board meeting. You can view the

rules on the Board's website at [www.dora.state.co.us/aes/lawsrule-policies](http://www.dora.state.co.us/aes/lawsrule-policies). Please note the new rules became effective December 31st.

Also, in my last update, I talked about the next steps of the workgroup. The group did not meet in November or December. They will meet in January to take a look at where to go next in developing the continuing competency piece of the statute resulting from Senate Bill 08-029. As always, please keep an eye on the State Board website for the latest updates.

## The Complaint Process

As a part of this regular update for *Side Shots*, I would like to include installments on the details regarding the complaint process in the event a licensee has a complaint against them at the Board office. The first

step for my staff upon receiving the complaint is to start the disciplinary process. The disciplinary process begins when a complaint is filed with the State Board by any member of the public, or when the Board initiates a complaint on its own. One way that the Board may file a complaint is when it learns of a violation by a licensee listed in a complaint who is not the original named respondent. The Board then requests the other licensee to respond to the allegation in order to ensure adequate due process.

In the next update, I will continue to explain the complaint process to include what happens after the complaint is filed and if a formal investigation ensues.

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Colorado State Office  
2850 Youngfield Street  
Lakewood, Colorado 80215-7093



www.co.blm.gov

IN REPLY REFER TO:

CO-956  
9655.2

December 31, 2008

Mr. Tom T. Adams, President  
Professional Land Surveyors of Colorado  
1210 24<sup>th</sup> Lane  
Pueblo, Colorado 81006

Dear Tom:

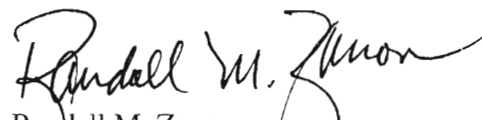
This letter is to inform you of official cadastral surveys in Colorado that have been accepted from, October 1, 2008, through December 31, 2008, and are now available from the Public Room, Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado, 80215.

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

<u>Township</u>	<u>Range</u>	<u>Meridian</u>	<u>Group #</u>	<u>Type</u>	<u>Approved</u>	<u>Plats</u>
T. 4 N.	R. 72 W.	Sixth	1414	Plat & Notes	10/30/08	1
T. 5 S.	R. 99 W.	Sixth	Secs.28, 33	Suppl. Plat	10/10/08	1
T. 8 N.	R.100 W.	Sixth	1449	Plat & Notes	11/20/08	1
T. 9 N.	R.101 W.	Sixth	1449	Plat & Notes	11/20/08	1
T. 8 N.	R. 95 W.	Sixth	1455	Plat & Notes	12/09/08	1
T. 2 S.	R. 98 W.	Sixth	1518	Plat Only	12/17/08	1
T. 46 N.	R. 8 E.	NMPM	1325	Plat & Notes	12/22/08	1
T. 42 N.	R. 13 W.	NMPM	1444	Plat & Notes	12/22/08	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,

  
Randall M. Zanon  
Chief Cadastral Surveyor for Colorado

# CENTRAL COLORADO PROFESSIONAL SURVEYORS 2009 ANNUAL SURVEYING CONFERENCE

**WHEN:** FEBRUARY 27th AND FEBRUARY 28th, 2009  
Registration begins at 7:00 a.m. and classes start at 8:00 a.m. both days.

**WHERE:** THE TIVOLI CENTER, METROPOLITAN STATE COLLEGE OF DENVER  
900 AURARIA PARKWAY, DENVER, COLORADO 80204

**SPEAKERS:** Michael McInnis, Ron Childs, Maria Massaro, Charles Adams, Mason Finks, Gary Gable, Charlie Tucker, Randy Bloom and Alan Blair.

## FRIDAY, February 27th

### PROFESSIONAL-LEVEL SESSIONS

8:00 a.m. – Noon Michael McInnis “GPS Topic”  
8:00 a.m. – Noon Ron Childs / Maria Massaro “What Title Companies and Attorney need on ALTA/ACSM Land Title Surveys”

Noon – 1:00 p.m. Lunch / General Meeting / Door Prizes

1:00 p.m. – 5:00 p.m. Michael McInnis “GPS Topic”  
1:00 p.m. – 3:00 p.m. Charles Adams “Colorado Land Surveying Laws/Board Rules and Policies”  
3:00 p.m. – 5:00 p.m. Mason Finks “Identify Theft Personal/Business”

5:30 p.m. – 6:30 p.m. PLSC Board of Directors Dinner

6:30 p.m. – 10:00 p.m. PLSC Board of Directors Meeting

## SATURDAY, February 28th

### PROFESSIONAL-LEVEL SESSIONS

8:00 a.m. – Noon Michael McInnis “GPS Topic”  
8:00 a.m. – Noon Gary Gable, PLS / Charlie Tucker “Railroad Survey 101 presented by AREMA”

### TECHNICIAN-LEVEL SESSION

8:00 a.m. – Noon Randy Bloom, PLS “Survey 101 as it relates to the PLSS”

Noon – 1:00 p.m. Lunch / Door Prizes

1:00 p.m. – 5:00 p.m. Michael McInnis “GPS Topic”  
1:00 p.m. – 5:00 p.m. Gary Gable, PLS / Charlie Tucker “Railroad Survey 101 presented by AREMA”

### TECHNICIAN-LEVEL SESSION

1:00 p.m. – 5:00 p.m. Alan Blair, PLS “Survey 101 as it relates to operation of field equipment”

Online registration forms are available at the PLSC web site ([www.plsc.net](http://www.plsc.net)). Conference costs for the professional sessions are \$150.00 for a single day and \$230.00 for both days if registering by February 15, 2009. An additional \$25.00 will be added to late and walk-in registrations. Conference costs for students are \$35.00 and \$50.00 respectively. The Saturday technician program is \$35.00. This year included in your conference fee is **FREE PARKING**. Free parking ticket will be provided to you at check in and is ONLY valid for the Tivoli Parking area located westerly of the Tivoli Building. A catered lunch is provided both days and is included in the conference fees. Some door prizes include: Garmin Hand Held GPS, TomTom Auto GPS, Full reproduction of Hayden Atlas, Single sheets of Hayden Atlas, Initial Points Book + Vendors Gifts!

# 2009 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 2009. 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 refresher class to aid candidates in developing and expanding exam-taking proficiencies.

## Refresher Course Schedule

### Fundamentals of Surveying

<b>Session</b>	<b>Date</b>	<b>Topic</b>	<b>Instructor</b>
1	Wed., Jan. 7	Overview NCEES/Colorado Exam	Alan Blair
		Basic Calculations	Gaby Neunzert
2	Wed., Jan. 14	Trigonometry/Algebra	Gaby Neunzert
3	Wed., Jan. 21	Horizontal & Vertical Curves	Gaby Neunzert
4	Wed., Jan. 28	Photogrammetry	John Bloodgood/Trevor Greening
5	Wed., Feb. 4	Geodesy	Trevor Greening/John Bloodgood
6	Wed., Feb. 11	U.S. Public Land Surveys I	Randy Zanon
7	Wed., Feb. 18	Legal Terminology & Definitions	Diana Askew

### Principles of Practice and Colorado Specific

8	Wed., Feb. 25	U.S. Public Land Surveys II	David Tomaschow
9	Wed., Mar. 4	Colorado Law I	Doyle Abrahamson/Roger Nelson
10	Wed., Mar. 11	Colorado Law II	Doyle Abrahamson/Roger Nelson
11	Wed., Mar. 18	Business, Ethics, Prin. & Practices	Alan Blair/Todd Beers
12	Sat., Mar. 21	Mock PS and FS Examinations	Randy Zanon/Gaby Neunzert

### Times

The Wednesday evening classes will be 3 hours in length, starting promptly at 6:00 PM. The Saturday, March 28 session will consist of a mock FS and PS/Colorado NCEES examination. The exam will start at 8:00 AM and end at 12:00 Noon.

### Registration and Costs

The fee for the entire course is \$300, or \$50 per 3-hour block taken individually. Complete and mail the Registration Form to the address provided. Early registration is strongly recommended to guarantee admission in the class, avoid the late registration fee, and so that adequate handout materials can be assured.

### Materials

It is suggested you bring a NCEES approved calculator (see list below) that you are very familiar with, any surveying textbooks available to you, a Manual of Surveying Instructions, 1973 Black's Law dictionary, a 3-ring binder for notes and handout materials and an inquiring mind. Homework and quizzes are to be expected. NCEES Approved Calculators: Hewlett Packard HP 33s & HP 35s models, but no others; Casio – All FX 115 models (Note: Any Casio calculator must contain fx-115 name.); Texas Instruments all TI-30X and TI 36X (Note: Any Texas Instrument calculator must contain either TI-30X or TI 36X in its model name.)

### Location and More Information

The Colorado Refresher Course will be held at the Metro State Auraria Campus (King Center, Room 211). This latest updated flyer will be posted at <http://www.colorado-surveyors.org/>. For questions on registration contact the MSCD Surveying and Mapping Program, MSCD Extended Campus at 303-721-1313. Deadline for registration is December 15, 2008. Late registration begins December 16th, please see registration form (attached) for late registration details. Registration and payment must be received prior to attending a session. For other questions contact Randy Zanon at 303-239-3856.



**Metropolitan State College of Denver – Surveying and Mapping Program  
Registration Form for Colorado Refresher Courses**

<b>Please register me for the course(s) checked below:</b>	<b>Postmarked By</b>	<b>After</b>
	<b>12/15/2008</b>	<b>12/15/2008</b>
<input type="checkbox"/> 12 Session Colorado Refresher Course	\$300	\$325
or		
<b>Individual Sessions</b>		
<input type="checkbox"/> Overview of NCEES, Basic Calculations	\$50	\$60
<input type="checkbox"/> Trigonometry/Algebra	\$50	\$60
<input type="checkbox"/> Horizontal & Vertical Curves	\$50	\$60
<input type="checkbox"/> Photogrammetry	\$50	\$60
<input type="checkbox"/> Geodesy	\$50	\$60
<input type="checkbox"/> Legal Terminology & Definitions	\$50	\$60
<input type="checkbox"/> U.S. Public Land Surveys I	\$50	\$60
<input type="checkbox"/> U.S. Public Land Surveys II	\$50	\$60
<input type="checkbox"/> Colorado Law I	\$50	\$60
<input type="checkbox"/> Colorado Law II	\$50	\$60
<input type="checkbox"/> Business, Ethics, Prin. & Practices	\$50	\$60
<input type="checkbox"/> Mock Exam	\$50	\$60

**Registration Information:**

**Name:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_ **Zip Code** \_\_\_\_\_

**Business Phone:** \_\_\_\_\_ **Fax** \_\_\_\_\_

**Home Phone:** \_\_\_\_\_ **Email** \_\_\_\_\_

**Payment:** Enclosed please find my payment for:

12 Session Course: \$300 or (late registration \$325) \$

Individual Courses: \$50 each or (late registration \$60 each) \$

**Total** \$

Check enclosed for total charge. Make checks payable to Metro State

Charge my credit card for total indicated: Mastercard \_\_\_\_ VISA \_\_\_\_

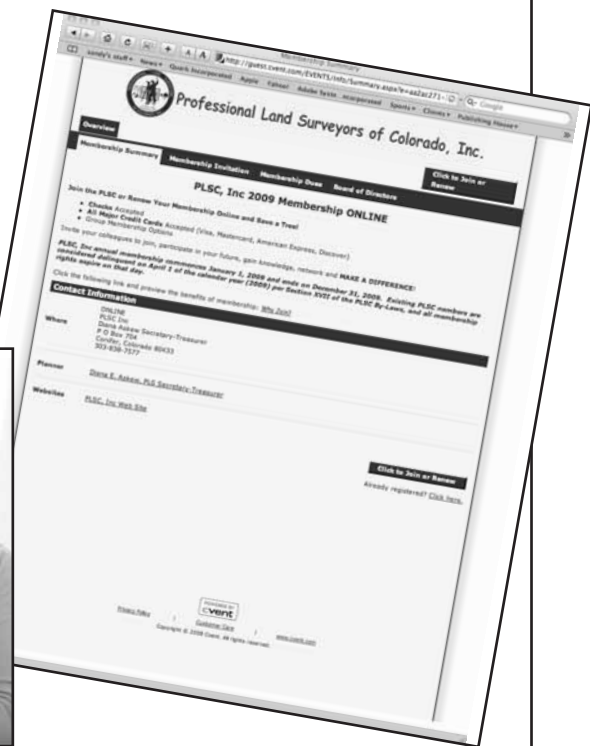
Return this registration form and payment to:  
Metro State College of Denver-South Campus  
Attn: Survey Dept.  
5660 Greenwood Plaza Blvd. #100  
Greenwood Village, CO 80111

Credit card orders can be faxed to 303-220-1787

# Membership Renewals for 2009

Thanks to our Executive Director Diana Askew, the PLSC now has easy and convenient on line membership renewal capabilities. Most existing members have already received email notices from this new system and renewal rates have greatly improved!

If you have not yet renewed, or wish to join, simply go to **www.plsc.net** and click on the Membership tab. Have your credit card ready. You may also mail a check. Within minutes, you will have all of the benefits of membership in the PLSC at rates that are still among the lowest in the nation.



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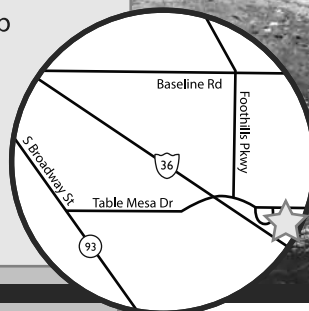
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# Dedication of 40th Parallel Monument to take place on March 20th



The 40th Parallel historic monument, featured in the May, 2008 issue of *Side Shots*, will be the focus of a dedication ceremony on March 20, 2009. The monument is located on Baseline Road in Boulder, just east of Broadway next to the BaseMar shopping center.

The PLSC was one of several donors to the project. The monument commemorates the extension of the baseline from the 6th Principal Meridian to the Continental Divide in 1859 by U.S. Deputy Surveyors Jarret Todd and James Withrow. That same year Boulder was founded as the Boulder City Town Company. 2009 marks the sesquicentennial of both events.

Current plans by the City of Boulder include a display of historic survey equipment, a dedication and presentation by the mayor and the monument artist, and some planned surveying activities and demonstrations for a 5th grade class. Professor Gaby Neunzert, and potentially some other old-time faculty members, have agreed to help with these efforts. Hopefully some City press releases will get local print and television media interested in covering the event.

This is consistent with the PLSC's goals of educating the public, and younger people in particular, about the surveying profession. These events are scheduled to take place from 2:00 to 4:00 P.M. PLSC members, their families, and any interested citizens are welcome and encouraged to attend.



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# PLSC ANNUAL MEMBERSHIP MEETING MINUTES

**When:** November 14th, 2008 1:00 P.M. to 2:00 P.M.  
**Where:** University of Denver, Driscoll Center South, 2050 E. Evans Avenue, Denver, CO

*Due to the need to confine the meeting to one hour, many of the agenda items were skipped.*

**Results of the 2008 PLSC Awards Ceremony:**

- Honorary Life Member:** Dr. Herbert W. Stoughton and John B. Guyton
- Surveyor of the Year:** Diana Askew
- Citizen-Surveyor:** Dan Smith
- Distinguished Service:** Michael Bouchard
- Appreciation as PLSC Director:** Les Doehling, Lawrence T. Connolly, Gary D. Gable and Michael M. Greer

**Call to Order: 1:00 PM**

**Introduction of New Officers and Directors:**

- Tom Adams, President
  - Michael Greer, Vice President
  - Diana Askew, Secretary-Treasurer
  - Gary Gable, Director (2nd term)
  - Stan Vermilyea, Director
  - Patrick Green, Director
  - David Freienmuth, Director
- There were the same number of votes for David Freienmuth and Peter Kent. Peter Kent withdrew from the running.

**Approval of Minutes**

Michael Greer motions to approve; Doug Berling seconds; Unanimous approval

**REPORTS**

**Secretary-Treasurer Report to the General Membership– Diana Askew**

*See Chart Below*

This is the first report to include the Colorado Scholarship Educational Fund. The account could not be located until September of this year. Once the funds were located I immediately moved \$40,000 into an interest bearing savings account. Our investments are losing value; however, this is the trend in the current market. We will hold our investments where they are for now. Microsoft and Cisco are both strong corporations and will recover when the economy allows. The conference has been a huge success with close to 250 registrations. The PLSC is now in the black! It will be important for the Board of Directors to prioritize expenses and participate in drafting the 2009 budget.

**President**

John B. Guyton: JB officially turns over the gavel to Tom Adams as the new President of the PLSC. Gene Koooper will continue as the Executive Director through 2008. John B. Guyton: JB supports amending the bylaws or articles of the PLSC so a member of each chapter board will be part of the PLSC Board of Directors.

**NSPS Delegate**

Warren Ward: Warren provided an update on the status of the proposed RR bill. He encouraged each PLSC Chapter to participate in the NSPS Trig Star and NSPS Certified Survey Technician programs, since they are programs that are already organized for our participation.

**WFPS Delegates**

Dave DiFulvio: The Western Federation of Professional Surveyors is an organization of the Western 13 states' organizational societies, where the members help each other and talk about issues that affect the Western states. Colorado issues as well as national level issues are discussed. This year we met in Boise, Albuquerque and Seattle. The WFPS

*continued on page 21*

Account	9/29/2008 Balance	9/30/2008 Balance	10/31/2008 Balance	11/12/2008 Balance
<b>Bank Accounts</b>				
Checking at Wells Fargo - Main	39,457.20	39,457.20	34,817.25	34,801.71
CSEF Checking at Wells Fargo	13,538.00	13,539.73	13,540.25	13,540.25
CSEF Savings at Wells Fargo	40,000.00	40,004.59	40,031.91	40,031.91
Merchant Checking at Wells Fargo	9,644.82	9,640.32	18,981.97	32,704.72
<b>TOTAL Bank Accounts</b>	<b>102,640.02</b>	<b>102,641.84</b>	<b>107,371.38</b>	<b>121,078.59</b>
<b>Investment Accounts</b>				
Investment at Merrill Lynch Investments	26,393.85	26,393.85	26,393.85	19,939.30
Roger Patterson ICA Fund	24,507.98	24,507.98	24,507.98	18,843.91
Roger Patterson WMI Fund	26,162.90	26,162.90	26,162.90	19,745.63
<b>TOTAL Investment Accounts</b>	<b>77,064.73</b>	<b>77,064.73</b>	<b>77,064.73</b>	<b>58,528.83</b>
<b>OVERALL TOTAL</b>	<b>179,704.75</b>	<b>179,706.57</b>	<b>184,436.11</b>	<b>179,607.42</b>

delegates meet every two years and usually partner with ASCM or another regional state. At the meeting in Salt Lake City we are partnering with ACSM, Utah and Montana. Usually there are two delegates per member state society, and half of the agenda is state reports regarding what your state board is doing. Some issues are bumped up to the national level and the group will work out local issues together. The definition of surveying in the states is changing; and we are discussing 4 year degree requirements, continuing education, and railroad abandonment. The scholarships have been budgeted up to \$7,500 and are only being offered for 4 year programs.

## **CHAPTER REPORTS**

### **CCPS**

Bill Buntrock: CCPS is in support of the upcoming Chapter Summit. The CCPS organized the Veterans memorial cleanup, and had a turn out of 8 or 9 individuals. The new southwest location for membership meetings has worked out well. The next CCPS meeting is scheduled in January and will be held in the Golden location. The CCPS conference is coming up at the end of February. They have copies of the Hayden Atlas for sale to help fund scholarships.

### **SCPLS**

Mark Johannes: The SCPLS held their Fall Workshop in September. The turnout was not as good as in the past and the chapter pretty much broke even. The Golf tournament had a good turnout and Mark offered thanks to those who participated. Charlie Adams attended the workshop and many learned quite a bit from that talk.

### **NW1/4CLS**

Jeff Gustafson: Jeff is the liaison representing his chapter and the PLSC. The chapter meets several times a year and generally there are 6 or 7 who show up for every meeting. We talk about what they hear from the PLSC.

### **WCLS**

Tom Sylvester: Tom provided a brief review of what they have been doing. Mesa State College is starting a new Construction Management program and the WCLS chapter donated \$5,000 of survey equipment to them for the survey portion of that program. The mentoring program is going along in pretty good shape. They are sponsoring a Pizza for the Pros program in the schools. The WCLS would like to become more involved in the Metro State program. They are very curious about the program status. The mentoring program on the Western Slope arranged with the college to provide credit hours for the courses. Theresa Smithson is still in Iraq, so Tom Sylvester will start teaching some of the courses.

### **SWC/PLSC**

David Freienmuth: The chapter meets monthly at a different place, mainly around Durango and Cortez.

The seminar proceeds are going to San Juan College and Fort Lewis College surveying programs. They have plenty of people attending the conferences. During the last seminar Walt Robillard wanted to fund a scholarship to a surveying student who is a veteran.

### **CSRN**

Russ Clark: As the newest chapter of the PLSC we were formed out of this conference two years ago. We are the voice for the PLSC concerning Real Time Networks across the State.

The Election Results for Officers and Directors are:

Dan Smith, President  
Brian Dennis, Vice President  
Jan Sterling, Director  
Pam Fromhertz, Director  
Larry DeVries, Director  
Jack Sparks, Director

### **NC/PLSC**

Mike DeDecker: The chapter meets every month except two months in the summer. We are trying to set up a joint seminar with Wyoming.

## **COMMITTEE REPORTS**

### **Legislative – Roger Nelson, Chair**

Tom Adams: Tom appreciates the effort Roger has made to bring the chapters into the legislative effort and has someone from every chapter as a representative on the committee.

Roger Nelsen: He is letting you know how your voice can be heard. Find your representative and add input to the committee. Anyone can contact Roger or one of your chapter representatives and your name will be added to the distribution list for all of the legislative reports. You do have a voice in the organization and this is a means to communicate.

### **Publications – JB Guyton, Chair**

John Guyton: We will try to get more advertising money so we can make the *Side Shots* publication costs more fiscally neutral and bring in more of the money to help cover the publication costs. This is still the primary way the PLSC communicates with the membership.

Tom Adams: Tom recognized JB for the outstanding work he has done, especially the changes to the cover. The membership acknowledged JB's effort and clapped in appreciation of his revisions to the cover and the look of the publication.

### **Liaison – Gary Gable, Chair**

Gary Gable: Gary has been working hard to communicate between Metro State College and PLSC. ABET accreditation issues will be discussed by Dr. Gibson tomorrow in the morning. The discussion will cover how the College will be defining

*continued on page 22*

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the educational objectives and will also provide an update on the reformed Land Survey Advisory Council. Two professors are temporarily on staff and they are looking for help with the distance learning. Dr Gibson has a good argument as to why a 4 year degree should be required for licensure.

#### **New Business**

##### **Continuing Education – Gene Kooper**

Gene Kooper: Gene provided a quick update regarding his participation on the State Board committee. The PLSC.net blog is a good place to discuss 4 year degree requirements.

##### **Proposed Increase of Membership Dues (Roger Nelson):**

Gene Kooper further explains that it has been 19 years since the membership dues and the ad fees for *Side Shots* have been raised. Dave DiFulvio indicated we (the PLSC) are second to the bottom in dues in the nation. Basic dues include a NSPS membership in some states. It is Gene's opinion that this is not a good time to raise dues due to the tough economic times. There needs to be a discussion as to how to include chapter membership in dues as well. The PLSC will need the input of the membership. Roger took a poll of the members at the meeting. None were opposed.

*Motion to adjourn by Diana Askew; Stan Vermilyea seconded; Unanimous approval.*

##### **Adjourn 2:03 PM**

Respectfully submitted:  
Diana Askew, PLSC Secretary - Treasurer

## CCPS

On November 9th CCPS members and guests volunteered their time in remembrance of the soldiers who gave the ultimate sacrifice to this county. They cleaned, raked and picked up hundreds of cigarette butts around the Colorado Veteran's Memorial next to the State Capitol. Participants included Owen Buntrock, Bill Buntrock, PLS (Cold War Veteran), Sara McClelland (Iraq War Veteran), Randy Zanon (Vietnam Veteran), Annie Oden, Kurt Ernstberger and Tim Drago (Vietnam Veteran).

The Colorado Veterans Monument was built by the volunteer staff of the Colorado Tribute to Veterans Fund, Inc. which was formed in 1983 by Tim Drago, a Vietnam Veteran. When he discovered that other veterans from World War I, World War II, and Korea had also not been honored at our State Capitol, the veteran's monument evolved into its present form. It is both a memorial to the dead and a tribute to the living.

Tim Drago presented to the CCPS a copy of the book "MISSION ACCOMPLISHED: Building Colorado Veterans Monument," a limited edition book in which 30 narrators tell the history (1983-2003) of the construction, care and commemorative use of the veterans monument.



Tim Drago indicated that the monument need some concrete/landscaping work (2 areas, each approximately 100' by 15') and is looking for some contractors and businesses to donate time or money. Tim can be contacted at [tdrago@ntw.net](mailto:tdrago@ntw.net) or 303-756-0338.

The Central Colorado Professional Surveyors 2009 Annual Surveying Conference is February 27th and 28th, 2009, at the Tivoli Center. Registration begins at 7:00 A.M.

and classes start at 8:00 A.M. both days. Speakers include: Michael McInnis, Ron Childs, Maria Masaro, Charles Adams, Mason Finks, Gary Gable, Charlie Tucker, Randy Bloom and Alan Blair. For more information, please see the one page advertisement in this issue of *Side Shots*.

The January, May and August meetings are held at the Northwest (Golden, Table Mountain Inn) location, and the March and October meetings are held at the Southeast (Doubletree Hotel Denver Southeast) location. If you would like a flyer on either location, please send an email to [PLSC-CCPS@hotmail.com](mailto:PLSC-CCPS@hotmail.com).

The complete reduced-size Hayden Atlas is available for \$70.00. The triangulation sheet and both panoramic sheets are also available for \$45.00 each. These can be purchased at the CCPS Annual Meeting, at any CCPS General Meeting, or contact the CCPS at [PLSC-CCPS@Hotmail.com](mailto:PLSC-CCPS@Hotmail.com). Credit Card payments can be made via PayPal. All monies received from sales of the Hayden Atlas are deposited in the CCPS Scholarship Fund.

And lastly, if you have a job opening, please list it on the Colorado Positions Offered board! ([www.plsc.net](http://www.plsc.net)). If you have survey equipment to rent or sell please contact me!

Bill Buntrock, PLS  
CCPS President 2008

## CSRN

The Colorado Spatial Reference Network is excited about the new year and the many opportunities available for us to work with the community to expand and enhance access to Real Time Reference Networks throughout the state. Our newly installed Board of Officers and Directors are eager to roll-up their sleeves and get to work: President - Dan Smith; Vice President - Brian Dennis; Secretary - Jan Sterling; Treasurer - Todd Beers; Direc-

tors - Pam Fromhertz; Roger Nelson; Mathew Barr; Lawrence deVries; and Jack Sparks.

The CSRN website is undergoing a complete rebuild by Bohannon Huston Inc. The eNewsLetter has been temporarily halted during the rebuild. The new website is slated to be previewed at our first CSRN Open Board Meeting of the year hosted by Nolte on January 15. An official unveiling will be announced sometime soon thereafter.

With a diverse group of private, government and local companies the CSRN is currently membership dues free. If you are interested in becoming a member please contact us through our website at [www.CSRN.us](http://www.CSRN.us) or you may contact me directly at 303-512-4401 or [daniel.a.smith@dot.state.co.us](mailto:daniel.a.smith@dot.state.co.us).

Dan Smith  
CSRN President

## NC/PLSC

This is an open invitation to the PLSC Board and to any other PLSC or Northern Chapter members who would like to see what is going on in Northern Colorado. We meet in various places throughout Northern Colorado from 6-8PM on the first Wednesday of the month. A dinner is provided followed by an educational topic and business. Our next meeting will be February 4th. If you are not on our e-mail list, please send an e-mail to [Rob Hintz](mailto:Rob Hintz), [rhintz@fcgov.com](mailto:rhintz@fcgov.com) to receive an agenda and directions to the meeting.

We discussed the Chapter Summit Meeting at our January meeting. Carl Sumpter, President-Elect and Ron Perkins, President plan to attend the next Summit in February. Specifically, we are planning a joint Spring seminar with two Wyoming Chapters (Cheyenne and Laramie) and hope to give our seminar additional value by combining forces. Details have not been deter-

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mined yet, so keep in touch! In general we are in support of consolidation of scholarships but have some questions about how they would be administered. We are also looking for some two-way communication between and among the chapters, hence the invitation to come see what we are doing. We are willing to set up a conference call in numbers if anyone would like to participate long-distance.

We also discussed updating our by-laws and constitution to be more in line with the parent chapter. We started this several years ago and after gaining the ability to make changes, neglected to follow up and change the documents!

That's all from NC Chapter,

Laine Landau

## NW 1/4

The NW 1/4 held its first meeting of the New Year on January 22nd in Hayden, Colorado. In attendance were Lloyd Powers, Walter Magill, John Noonan, Gordon Dowling, Peter Epp, Steve Archibeque, Jeff Gustafson, Skidge Moon and Tom Effinger. President Gordon Dowling presided.

The first item of discussion was a successful business model during these tough economic times. Specifically, we talked about accounts receivable, when to invoice, how tough "old" or "dated" invoices are to collect, when to lien and when to consider court action. We also talked about "attitude", that this is a business and to try not to get irate with past due clients. We also discussed how important it is to be level headed and persistent. Lastly, we talked in general terms about the type of client to do business with and the type not to. The members listed some of there sad but true stories for them, and what had worked and what had not worked.

The second item of discussion

was led by Tom Effinger and pertained to the \$99 ILC that is catching attention on Craig's list. Some of this did not relate directly to this part of the state, since as an industry, the surveyors in the Routt, Moffat and Jackson Counties locate property corners with an instrument, survey in the building with an instrument and shown setbacks to the property lines based upon the property corners located. We all agreed that the "drive-by" ILC was not just bad business, but bad for business and the professional reputation of Land Surveyors.

We adjourned and agreed to meet in latter March or early April, before the spring field season ensues.

Respectfully submitted,  
Brian T. Kelly, Sec.-Treasurer,  
NW1/4

## SCPLS

The Southern Chapter awarded two \$500 scholarships from its scholarship fund. The recipients are Dillon Thurston and Shaylynn Mincic. Both are enrolled in the Civil Engineering Technology program at Colorado State University in Pueblo. Congratulations to both of them and we wish them success in their studies and their careers.

At the time of this letter, the results of our election had not been finalized. The results will be announced at our January 20th board meeting. At the December board meeting, we discussed the various issues resulting from the first Chapter Summit at length. The two summit delegates will be taking the Southern Chapter's point of view to the next summit meeting.

Mark Johannes  
President, SCPLS

## SWC/PLSC

At the December meeting a motion was passed to donate \$5,000.00 to the PLSC.

Clyde has created a new website for our chapter. The address for the website is [www.swcplsc.com](http://www.swcplsc.com). Stop by for a visit to see the bimonthly newsletter details on our next seminar and more.

Our next chapter meeting will be held on February 19, 2009 at Christina's Bar and Grill in Durango at 6:00 p.m.. Bob Greene from Vector's Inc will be a guest speaker at this meeting.

Thomas E. Au, PLS  
President, SWC/PLSC

## WCLS

WCLS is starting the new year by planning new grants for improving the professional community of land surveyors. Additionally, we conducted a non-scientific survey regarding legal requirements for education levels, mandatory CEU, and a call for state colleges to support survey curriculums. In a nutshell, most land surveyors responding supported a need for education higher than a high school diploma and leaned toward a four year degree related to land surveying. A large majority supported mandatory CEU requirements. Unanimously, they responded with a call to state colleges to establish surveying curriculums.

As always, our meetings are held the second Wednesdays of January, March, May, July, September and November.

Rick Mason  
President



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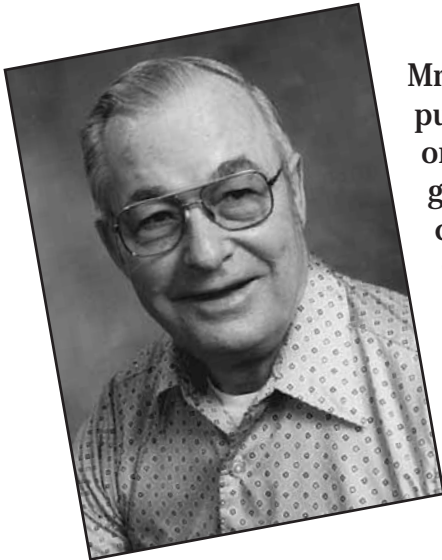
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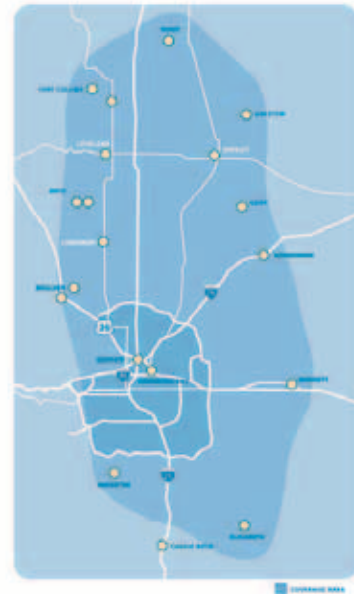


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