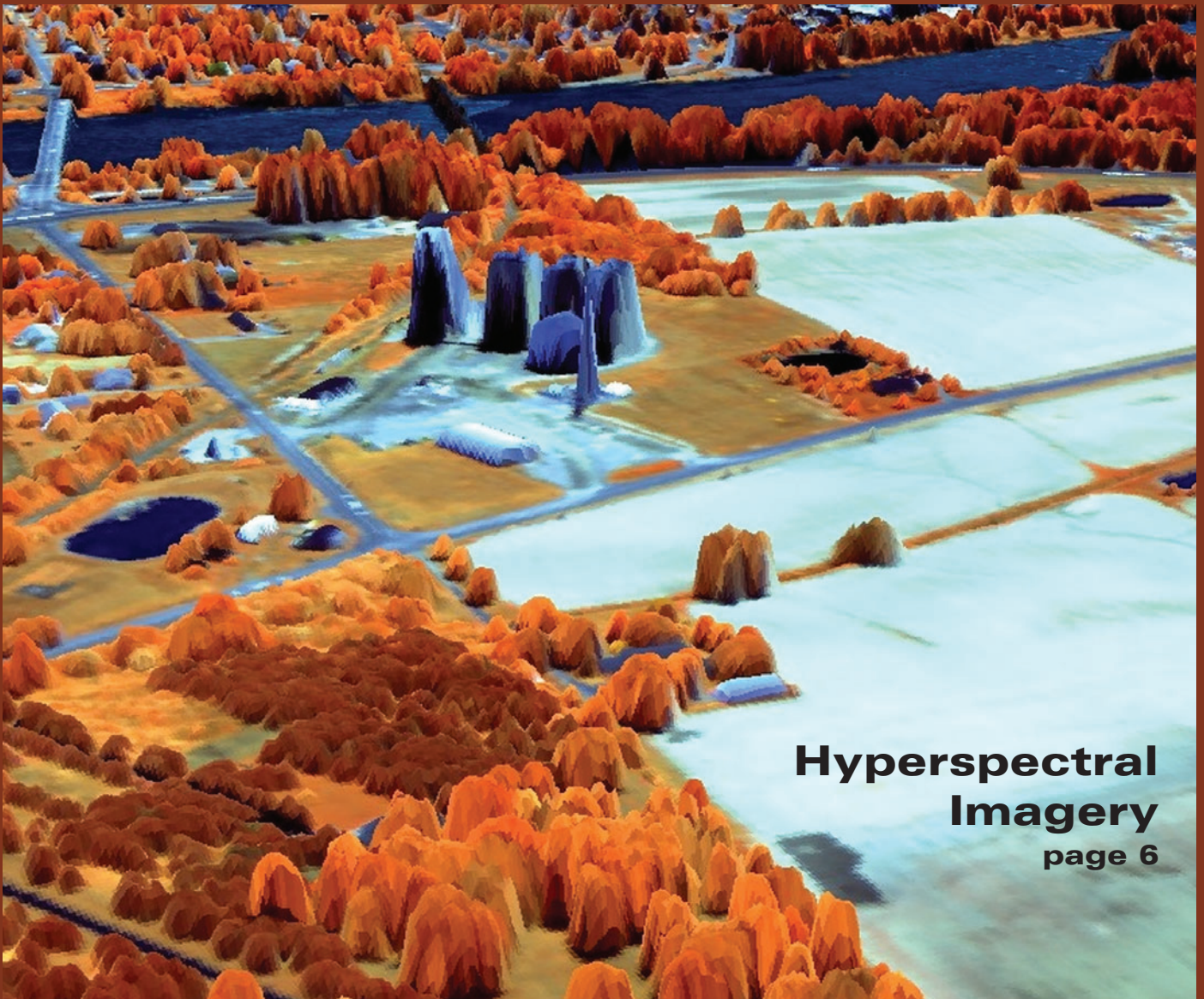


May 2009

SIDE SHOTS

Professional Land Surveyors of Colorado

Volume 40, Issue 2



**Hyperspectral
Imagery**
page 6

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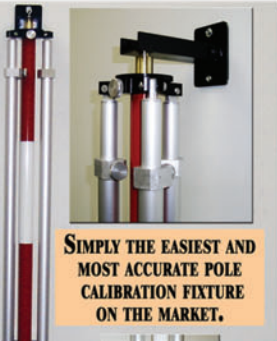
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FRONT RANGE SURVEYORS UNITE

In Colorado, a new RTK network has taken shape and grown rapidly, serving many users.

By Rick Spigel

Numerous references mention the RTK network in the state of Colorado, but few mention the network's impact on the industry. The network, known as the Front Range Surveyors' Network (FRSNET), is a public-private partnership between the Colorado Surveyors' Association (CSA) and the Colorado Department of Transportation (CDOT). The network is a real-time kinematic (RTK) network that provides centimeter-level accuracy for surveying and construction applications.

The network is a real-time kinematic (RTK) network that provides centimeter-level accuracy for surveying and construction applications. The network is a real-time kinematic (RTK) network that provides centimeter-level accuracy for surveying and construction applications.

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MAY JOURNAL 2009

VOLUME 40

NUMBER 2

■ President's Letter	4
■ From the Editor	5
■ Hyperspectral Imagery	6
■ In Memory -- Robert Brown	7
■ Control Points.....	8
■ BLM to Scan Survey Records.....	10
■ 2010 Colorado Refresher Course.....	10
■ Four Corners Area Surveying Seminar.....	12
■ Report of the State Board of Licensure for Architects, Professional Engineers, and Professional Land Surveyors	13
■ WFPS Board of Directors Meeting Report.....	14
■ WCLC/PLSC Joint Board Meeting Announcement....	15
■ PLSC Board of Directors Meeting Minutes	16
■ 40th Parallel Monument Dedication 1	9
■ Legislative Committee Update	20
■ Chapter News	24
■ Sustaining Members	26

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:

We had our first Board of Directors meeting in late February with the new 2009 board and officers, held in conjunction with the CCPS annual conference. We had trouble getting through the entire agenda in the limited amount of time we had. I hope to avoid such problems in the future by having more meetings, or starting earlier in order to cover all of the agenda items. We have arranged to have our next PLSC board meeting in conjunction with the WCLS chapter meeting, on May 16th in Grand Junction. See the announcement in this issue of *Side Shots* for details. Depending on the facility, and on the level of interest, we may take advantage of teleconferencing. If you might want to join in, you could check with a board member in your area and see if they are going to conference in locally.

In order to conserve space in this print version of *Side Shots*, the February 28th minutes will be published in a condensed version in this issue. The full version of the minutes, at seven pages, is simply too large for the magazine, and will appear on the plsc.net website. You can find a list of all supplementary articles under the heading, "This month on PLSC.net" If you open the on-line version of this May issue and find that same header, the subject titles are hyperlinks that will take you directly to the articles. We feel that this is the best balance of providing full information to our members while conserving the paper and expense of a thicker *Side Shots* in print.

As you are probably aware, we have several standing committees. Standing committees are chaired by PLSC directors. I have asked the following directors to chair the following committees: Russ Clark, *Survey Monumentation and Standards Committee*; Mike Greer, *Publications Committee*; Mike Bouchard, *Membership Committee*, Gary Gable, *Liaison Committee*; Roger Nelson, *Legislative Committee*; Patrick Green, *Ethics and Fair Practices Committee*; and David Freienmuth, *Education and Seminars Committee*. In the past, some of these committees have become dormant, and may or may not remain that way. If you would like to join one of these committees, or if you have any ideas for topics that you think a committee should be looking into, please contact your nearest board member, the committee chair, or me. If you volunteered to join a committee, I hope the chair has contacted you, or will be contacting you shortly.

A couple of valuable members of the Legislative committee recently resigned. I believe it occurred after our last meeting when the PLSC Board of Directors voted not to pursue the legislative changes the committee had proposed. I am sure the resignation of the committee members was due to the frustration that resulted from this. I feel somewhat guilty for this lack of communication. I hope to work with Roger Nelson more closely to make sure we have board support on the concepts being proposed before the committee spends long hours working on drafting the language of a change.

On a more somber note, we recently lost a surveyor who, at one time, was very active with the PLSC. Bob Brown, retired from CDOT, was one of CDOT's best researchers in my opinion, and many surveyors knew him from getting historic information from him and/or from his participation with the PLSC. I served with him on the CCPS Board of Directors in the mid-nineties. Bob worked for a time with the Corps of Engineers before coming to CDOT. Bob was a professional engineer but I believe he was a surveyor first. We will miss you, Bob.



Sincerely, Tom Adams, PLS

DEDICATED TO THE IMPROVEMENT OF LAND SURVEYING EDUCATION AND PRACTICE.

I am pleased to present our membership with an article on Hyperspectral Imaging that was submitted by Jan Van Sickle. I have known Jan for many years. He was an early adopter of GIS techniques in surveying, and is the author of several books, including GPS for Land Surveyors, now in its third edition. He is currently completing the requirements for his PhD.

Hyperspectral imaging is yet another very advanced method of data collection in the broad field of geomatics, usually performed from aircraft or satellites. Hyperspectral sensors gather surface details in a full spectrum of wavelengths beyond just visible light, from ultraviolet to infrared. Objects on the ground have very precise “fingerprints” or spectral profiles that enable the cre-

ation of maps that can detect a wide variety of materials. Applications of such imagery can be found in the mining and oil industries, as well as in agriculture, ecology, and even surveillance.

Our cover photo is a good example. The company SpecTIR was hired by the USDA Plant Protection and Quarantine Division to collect and analyze hyperspectral data to identify the spectral signature of ash trees in parts of Michigan and Ohio. The image is a display of ash trees in various stages of infection by the Emerald Ash Borer. The imagery was fused with LiDAR canopy data to produce an orthorectified hyperspectral representation of the area of interest. This product is being used by the USDA to understand and manage

the extent of the Emerald Ash Borer damage in that region.

As aerial scans like these become more commonplace, integrating the data with ground data will still involve the skills and licenses of a professional land surveyor. The evolution of land surveying and all of the other facets of Geomatics continues, and as surveyors, it will serve us and the public well to stay on top of these latest, amazing developments.



JB Guyton
Editor

On the cover...

An example of Hyperspectral Imagery used by the USDA to show trees in Michigan and Ohio in various stages of damage due to the Emerald Ash Borer. Photo courtesy of William Bernard, SpecTIR LLC, Easton, Maryland. www.spectIR.com

This Month on WWW.PLSC.NET

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

PLSC Board of Directors unapproved meeting minutes, February 28, 2009, held at the Tivoli Center, Metropolitan State College of Denver (abbreviated version appears in this issue);

PLSC Legislative Committee report on affidavit of correction legislation issue (abbreviated version appears in this issue);

Hyperspectral Imagery by Jan Van Sickle, full version of cover story;

NSPS Governor Report to PLSC Board of Directors, by Warren Ward;

Ohio Trig-Star awarded second annual Trig-Star scholarship, press release;

William J. Stengel article and photos; Mr. Stengel spent 57 years surveying in and around Boulder County starting in 1951;

Letter by Dr. Herbert W. Stoughton concerning his appointment as a PLSC Honorary Life Member;

Draft PLSC budget for 2009;

PLSC - CSEF - Patterson - Account Balances - As of 2/15/2009;

Bylaws, Rules and Policies of the State Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors – December, 2008;

Letter from Colorado Association of County Surveyors concerning House Bill 38-51-107 and the 20-year rule;

Colorado Senate Bill 08-029, concerning continuing competency regulations for architects;

DORA flyer, “Continuing Competency — A Colorado Approach.”

DORA Continuing Education Structured Report form;

Draft of a U.S. House of Representatives bill to preserve the physical monumentation related to abandoned railroad tracks;

Talking points on the issue of railroad abandonment.

Hyperspectral Imagery

By Jan Van Sickle



Jan Van Sickle, P.L.S. has more than forty years of experience in GIS, GPS, surveying and mapping. He has led nationwide seminars based on his three books, GPS for Land Surveyors and Surveying Solved Problems. The latter book is serialized in POB. His latest book is Basic GIS Coordinates for Taylor and Francis Publishers, London. He is a Senior Lecturer at

Penn State University and a licensed professional Land Surveyor in Colorado, California, Oregon, Texas and North Dakota.

Imagery has a variety of useful applications. It can be used in topographic mapping to build a model of the vertical aspect of the terrain, i.e. contours, digital elevation models and triangular irregular network. It can be used to facilitate planimetric mapping representing horizontal relationships. Another application is the classification of land cover and land use into themes. These days the foundation of such classification is most often the spectral pattern available from the data for each pixel in digital imagery.

Usually the imagery involved in this categorization is panchromatic or multispectral including from 3 to 10 bands of the visible spectrum, with perhaps the inclusion of some near infra-red (NIR) data. The bands are typically wide and not contiguous. The discrimination of features in classification derived from such imagery is necessarily limited. Alternatively, the bands of imagery collected by hyperspectral sensors are more numerous, contiguous and narrower. They divide a broader swath of the electromagnetic spectrum into 100 to 200 bands. The increased information makes it possible to parse themes more finely and by comparing the collected spectrum to the known spectra of the features in the imagery, detect differences between features with greater subtlety.

But as you might expect there is a major difference in data volume between multispectral and hyperspectral. As the number of bands increases from less than 10 to more than 200 and the radiometric quantification is increased from 8 to 10 bits per pixel per band, data volume goes up in a hurry. Also combined with the hyperspectral data itself there are sensor and attitude alignments, attitude measurement accuracies, ground control points and the digital elevation modeling. Hyperspectral and attendant data add up to more than two gigabytes during each operational flight and when multiple flights are required the data volume is further compounded. It can reach 50 gigabytes or more. Handling the volume is an important consideration.

Nevertheless, hyperspectral imagery – collected by sensors known as imaging spectrometers – has the utility of supporting quite detailed mapping classification. For example, if a client wished to determine the

boundaries between classes such as grasses and noxious weeds, several species of trees, different types of similar impervious surfaces, superficial geology, polluted areas, determination of leaf chemical concentrations, etc. hyperspectral imagery may be worth consideration.

Hyperspectral imagery is collected from both airborne and spaceborne platforms. One obvious difference between the two platform categories is the size of the ground instantaneous field of view (GIFOV) which is, as it sounds, at the instant the area on the ground from which radiation is focused on a scanner. For example, a HyMap airborne scanner has a GIFOV of ~5m — depending on flying height — and the Hyperion spaceborne scanner has a GIFOV of ~30m. There is much more that could be said about the difference, however, most urban work requires the smaller resolution. And since spatial resolution is particularly important in such cases, more than in the classification of say rocks, soil, water bodies in undeveloped areas, here are just a few brief ideas pertinent to airborne acquisition of hyperspectral imagery.

Resolution

It is important to note that as an aircraft's flight height is reduced the spatial resolution (pixel size) of the resulting imagery grows smaller and so does the number of wavelength bands. The spectral coverage is not reduced - a hyperspectral sensor that detects a portion of the electromagnetic spectrum from 400 to 2500nm still covers the same spectrum. But as the aircraft's altitude decreases that range is divided into fewer bands. For example, the following table illustrates that reduction as the airborne platform flying height changes for one particular sensor, the Compact Airborne Spectral Imager (CASI 1500).

Spatial resolution	Number of contiguous spectral bands
50 cm	32
75 cm	48
1 m	72

Radiance

Another consideration in successful classification of hyperspectral data involves radiance values. An uncorrected hyperspectral image contains absorption features caused by gases in the atmosphere. There are usually ~30 gases involved, but only 7 produce observable absorption features in the 400 to 2500nm range. They are oxygen, water vapor, carbon dioxide, ozone, nitrous oxide, methane and carbon monoxide. The radiance values also inevitably contain the sky and path irradiance that result from the scatter of the sunlight. These alter the spectral signatures of surface features and

their removal is important. Also, the images should be converted to reflectance units if they are to be used with any field collected spectra for analysis.

Fortunately, atmospheric correction can be done by most vendors, usually via radiative transfer models such as ATREM (ATmosphere REMoval), ACORN (Atmospheric CORrection Now) or ATCOR (Atmospheric CORrection). Most use ACORN or ATCOR which are based on the MODTRAN radiative transfer code. No matter how it is done the quality of the atmospheric correction and radiometric calibration to scaled surface reflectance is very important.

On-site (In situ) Data Collection

There are at least two aspects of hyperspectral imagery collection that often require on-site data collection. One is the validation of the spatial integrity of the imagery, i.e. ground control points, and the other is the creation of a custom spectral library, i.e. spectroradiometer measurements.

The collection of hyperspectral imagery today is not different than other airborne work in that the spatial integrity of the imagery collected typically relies on both onboard systems and ground control. Aircraft sensing systems often have onboard stabilization which incorporate both an INS and GPS

An IMU is a closed system of gyroscopes and accelerometers used to detect changes in the roll, pitch and yaw of an aircraft. In other words, an IMU meas-

ures the 3-axis angular rate and the 3-axis linear acceleration of the vehicle. An Inertial Navigation System, INS, contains an IMU. It includes a computer that can dead reckon using the IMU's measurements. An INS computes the navigation solutions and attitude references from the IMU data.

However, inertial systems accumulate error, that is, the slight INS measurement errors that occur as the aircraft moves are additive. This accumulation of errors eventually constitutes a drift of the measured position of the aircraft away from its actual position. This is one reason an INS is usually part of a suite of sensors including GPS. Since GPS determines position from external sources, satellites, it can correct the drift in the internal INS processes. The GPS/INS combination is symbiotic but not fool-proof. Therefore, even when a GPS/INS system is onboard photogrammetrists still wish to have the insurance that ground control points (GCPs) offer, in most cases. Ground control points in urban environments are often photo-identifiable positions collected with GPS measurements that are used to correct attitude and altitude changes using appropriate mathematical models.

Hyperspectral imagery is a powerful technology. It will become more and more pertinent to our work.

Editor's Note: This is the first part of a more detailed article; readers are encouraged to review the full version on www.plsc.net.

In Memory Robert L. Brown – 1939-2009

Robert (Bob) Brown passed away on February 13th due to cancer. Bob was a very active member of the PLSC.

Bob was born January 25, 1939. He moved to Denver in 1946 and attended Wheat Ridge High School. In 1958 he moved to Ketchikan, Alaska. After high school, he enlisted in the U.S. Navy where he was a radioman on the USS Norton Sound and later on the USS Yorktown.

After his Navy experiences, he attended Everett Jr. College in Tacoma Washington. Then he went to the University of Alaska in Fairbanks, where he earned his Civil Engineering degree. He took a job with the U.S. Geodetic Survey, where he fell in love with mapping. He then took a position with CDOT in 1971 where he retired after 28 years. His last years with CDOT were spent in the Right-of-Way Division, where he was a great resource to both the sur-



veyors within CDOT and to the Geodetic Advisor who was on shared duty from the NGS (National Geodetic Survey). Bob was highly instrumental in the state-wide GPS high accuracy network. He also assisted in the locating and setting of monuments in the four state corners of Colorado, and also at the locations where Wyoming and Nebraska, and also Nebraska and Kansas, abut our state line, as well as where Oklahoma and New Mexico meet.

Since his retirement in 1999, he had volunteered in the following organizations: The Colorado Railroad Museum (where all of the railroad right-of-way maps that were at CDOT are now stored), the Wings over the Rockies Museum, and The Rocky Mountain Philatelic Library. He will be dearly missed by not only his family and friends but the entire surveying community of Colorado as well.

Control Points

By Warren Andrews, PLS

π The number that is the ratio between the circumference and the diameter of a circle is a rather odd and peculiar one. It never comes out even in our decimal number system. The first recorded attempt to define it is in the Egyptian Rhind papyrus copied by Ahmes the scribe around 1650 B.C.E. He wrote; "Cut off one-ninth of a diameter and construct a square upon the remainder, this has the same area as the circle." The area of the square would be $(8/9D)^2$. The area of the circle would be $(D/2)^2$ times some factor which eventually in the eighteenth century in Europe would be called pi (π). (In Beckmann's book *A History of Pi* is given how the ancients probably approximated the area of a circle by summing up a lot of segments of a circle until the result is close to the area of a parallelogram).

If you equate $(8/9D)^2 = (D/2)^2$ times π then $\pi = 64/81 D^2$ divided by $D^2/4$. Rearranging terms then $\pi = (64D^2/81) (4/D^2)$. Cancelling out the D^2 leaves $\pi = (64/81)(4)$. Therefore $\pi = 256/81$ which equals 3.16949. Not too bad for 3.14159.

In the Old Testament (I Kings vii. 23) π is given as 3. The Babylonians, with their number system based on 60, assumed π to be $57/60 + 36/(60)^2$ which is 3.125 but still not as close as the Egyptian.

In India, one of the Siddhantas published in 350 AD, based on much older lost documents, gives π as $3(177/1250)$ which equals 3.14160. In 499 A.D. another Hindu document says, "Add 4 to 100, multiply by 8, and add 62,000. The result is approximately the circumference of a circle of which the diameter is 20,000." This gives $\pi = 62,832/20,000$ which is 3.14156.

The Chinese used the decimal system from the beginning (their abacus today is based on double fives with the beads.) In 130 A.D. Hou Han Shu used $\pi = 3.1622$, close to the square root of 10 which is 3.16228. Liu Hui in 264 AD. using an inscribed polygon of 192 sides found $3.14024 < \pi < 3.142704$ and with a polygon of 3,072 sides he found $\pi = 3.14159$. In the fifth century Tsu Chung-Chih and his son Tsu Kang-Chih found $3.1415926 < \pi < 3.1415927$, an accuracy that was not attained in Europe until the sixteenth century. The Chinese had the advantage of using zero (as a space for which the Hindus later used a circle and now we use a 0 as the symbol). This symbolism reached Europe only in the late Middle Ages and Britain in the early Renaissance. (An edict of 1259 A.D. in Florence, Italy forbade the bankers to use "infidel symbols" which were Arabic

numerals including zero. They were supposed to use Roman numerals only without zero.)

The Greek theoretical approach was the same as the Chinese, and Archimedes used the "principle of exhaustion" first put forward by Antiphon (late fifth century B.C.) to find the circumference of the circle. Archimedes of Syracuse, born about 287 B.C., is credited as being the most brilliant mathematician, physicist, and engineer of antiquity in the Western World. He was arbitrarily killed by a brutal Roman soldier at the sack of Syracuse in 212 B.C. He used the convergence of many-sided circumscribed and inscribed polygons outside and inside of a circle to calculate the circle.

Much later European mathematicians used trigonometry and calculus to find π .

Recently the Chudnovsky brothers on a homemade supercomputer calculated π to eight billion digits but it never came out even. It is actually an irrational and transcendental number. For those interested in more about π see *A History of Pi* by Peter Beckmann and *The Joy of π* by David Blattner.



Archimedes



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BLM To Scan Survey Records

by Randall M. Zanon, Chief Cadastral Surveyor, BLM – Colorado

BLM – Colorado Cadastral Survey has embarked on a project to scan all of the cadastral survey records and to make them available over the internet. Previously BLM survey records in Colorado have been available on microfiche at the Public Room of Colorado's BLM State Office in Lakewood, and at the various BLM Field Offices around the state. However, in 1998 the BLM closed the office of micrographics and quit making microfiche copies of the BLM survey records; so Cadastral Survey in Colorado started scanning any new survey records and posting them on BLM - Colorado's internet website. The cadastral survey records from July 1998 to the present can be found at:

http://www.blm.gov/co/st/en/BLM_Programs/geographical_sciences/cadastral/digrecord.html

In the fall of 2008, BLM – Colorado Cadastral Survey was able to secure funding to launch our scanning efforts. We have contracted with Premier Data Services, a local contractor, to begin this scanning effort and they are imaging the original documents from the National Archives. Initial inspection of the scanned images indicates that these images are of very high quality. We have started with the scanning of the mineral survey connecting sheets, and then we plan to have all of our rectangular and mineral survey plats scanned, along with the rectangular and mineral survey field notes. As of this printing the Master Title Plats and Historical Indexes should be available over the internet, hosted on the BLM GLO records website.

This scanning effort is a multi-year project, highly dependent on available funding. The BLM cadastral survey organizations in Wyoming and Montana have also contracted with this same firm to have their records scanned. Colorado has an estimated 600,000 images of survey records dating back to the days of the original surveys, including all of the rectangular and mineral survey plats and field notes, along with the MTP's and HI's.

As the records are being scanned, the plan is to eventually have all the records indexed and hosted on the BLM GLO records website. This includes those images that are now available on BLM – Colorado's website as noted above. The bureau goal is to have all of our survey records available to the general public in one centralized location. The BLM GLO records can be found at:

<http://www.glorerecords.blm.gov/>

Currently there is no projected completion date for these scanning efforts. As mentioned earlier, this is a multi-year project, but I would hope that we could have the majority of our images scanned, indexed, and hosted by the Fall of 2011. For additional information, please contact Paul Lukacovic at 303-239-3818.

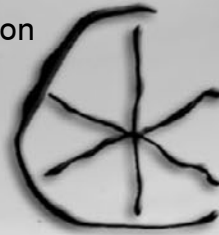


2010 Colorado Refresher Course

The Professional Land Surveyors of Colorado, Central Colorado Professional Surveyors, and Metropolitan State College of Denver Surveying and Mapping Program will be offering a comprehensive Land Surveying Refresher Course. The course will begin on January 6, 2010, and continue for 12 weeks, meeting Wednesday nights from 6 to 9 P.M. at the Auraria Campus. Registration information will be available by September, 2009. This course offers a review and self-study plan for those taking the NCEES Fundamentals of Surveying and the 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.

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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:
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PLSC, Inc.
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Conifer, CO 80433

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WHEN: JUNE 12th AND JUNE 13th, REGISTRATION IS FROM 7:00 TO 7:45 A.M. EACH DAY AND CLASSES BEGIN ACCORDING TO THE SCHEDULE SHOWN BELOW.

WHERE: THE COLLEGE UNION BUILDING (CUB) AND NOBLE HALL ON THE FORT LEWIS COLLEGE CAMPUS, DURANGO, COLORADO. (See FLC web page www.fortlewis.edu for maps).

WHO: John Stahl, Mike McInnes and Randy Zanon.

PROGRAM:

FRIDAY, June 12th

7:00 a.m. – 7:45 a.m.

Registration, coffee and pastries provided at the ballroom in the CUB

7:45 a.m. – 8:00 a.m.

Opening remarks, directions to classes

8:00 a.m. – 5:00 p.m.

Mr. John B. Stahl, "The First Surveyor Doctrine – Facts and Fallacies"

8:00 a.m. – 5:00 p.m.

Mr. Michael McInnes, "Current GPS Topics"

5:00 p.m. – 7:00 p.m.

Happy hour: complimentary hors d'oeuvres and beverages in the CUB.

SATURDAY, June 9th

7:00 a.m. – 7:45 a.m.

Registration, coffee and pastries provided at the ballroom in the CUB

8:00 a.m. – 12:00 p.m.

Mr. Randall M. Zanon, "Evaluation of Evidence and the Acceptance/Rejection of Local Corners"

8:00 a.m. – 12:00 p.m.

Mr. John B. Stahl, "Ethics and Liability Course"

Buffet lunch is included from 12:00 to 1:00, along with beverages and snacks during registration and breaks on both days, at the ballroom in the College Union Building.

The complete registration form will soon be posted on the internet at: <http://www.plsc.net/calender/calendar.htm>

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

by Charlie Adams, Program Director

Welcome to Spring from all of us here on the Board staff! We are just through another hectic exam cycle here and I'm already looking forward to preparing for the October exam cycle. Also, I enjoyed speaking at the Central Colorado Professional Surveyors 2009 Annual Surveying Conference at Metro State in February. I hope it was helpful for those who were able to attend. I always appreciate the opportunity to talk to licensees and consumers about the Board.

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

In my last update, I mentioned the new rules for architects that went into effect on January 1, 2009. As a reminder, you can view the rules on the Board's website at www.dora.state.co.us/aes/lawsrulespolicies. Furthermore, we are constantly updating the information for architects on the Board's website homepage at www.dora.state.co.us/aes. Specifically, we have added a Frequently Asked Questions (FAQ) page. You will be able to click on a link to the document from the homepage.

The Work Group the Board charged to develop rules for a Continuing Competency Program met in January to discuss next steps. The next meeting is in May and the topic of discussion will be the assessment phase of a proposed competency program. The assessment phase is the first part of a statutorily outlined three step competency process. 1) Assessment; 2) Documentation of a Learning Plan; and 3) Periodic Demonstration of Knowledge and Skills. (Reference C.R.S. §12-25-315.5(2)(b)(I, II, III) at www.dora.state.co.us/aes/Statute-ARC.pdf)

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 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 after the complaint is filed and what possible Board actions may result. The Board or staff will review the facts alleged in the complaint to determine whether, if proven to be true, the facts constitute reasonable cause to believe a violation of the practice act has occurred. If the initial review determines that the Board does not have jurisdiction or that the Board does not have reasonable cause to believe that a violation has occurred, the complaint will be dismissed, possibly with a confidential letter of concern to the licensee from the Board.



If the Board determines that it has reasonable cause to believe a violation of the practice act has occurred, a letter of admonition may be issued, the action may be tabled to gather information, or a request made for a formal investigation with the Division's Office of Investigations.

In the next update, I will explain the formal investigation process.

Western Federation of Professional Surveyors

Board of Directors Meeting Report – February 21, 2009 in Salt Lake City, UT

by: David C. DiFulvio, PLS, Colorado Delegate

Dave DiFulvio and J.B. Guyton both attended the Board meeting, representing PLSC. The meeting was attended by delegates from all WFPS states, including Alaska and Hawaii. The meeting was held in conjunction with the joint ACSM/MARLS/UCLS/WFPS Conference, and as such, there were a number of guests that were in attendance at various times, including Curt Sumner, ACSM; Keith Bailey, Texas; Diana Askew, Executive Director of PLSC; John Matonich, NSPS President, and Gene Kooper, (PLSC) Colorado.

Selected highlights from WFPS member states' reports:

Alaska: ASPLS Board supported legislation protecting signed & sealed documents from being copied without authorization.... ASPLS is offering free membership for a year to newly licensed Surveyors (4 out of 9 accepted).... University of Alaska Student Chapter received financial support to attend the NSPS competition in Salt Lake.... Education Committee is working on revising the education & experience tables to ultimately require a four year degree for licensure.

Arizona: APLS is working with the Arizona Geographic Information Council (AGIC) to update the state statutes for the Arizona State Plane Coordinates and Zones.... APLS and AGIC have adopted and endorsed the AZ Spatial Data Accuracy Standards.... 2009 is the 30th anniversary of APLS.

California: CLSA has developed a voluntary professional development program. Members can log onto the website and track their continuing education as well as print & export reports.... CLSA has developed a Right of Entry brochure to educate home owners and law enforcement, and was successful in getting it into

the Penal Code for law enforcement officers.... The California Surveyor was awarded Best of Show in the 2009 ACSM/NSPS Excellence in Professional Journalism contest.

Colorado: JB Guyton presented a report on the activities of PLSC.

Hawaii: The HLSA Trig Star program includes 17 high schools with over 200 students.... At their conference, held January 29 & 30 in Waikiki, they hosted CST testing.... Board members are having discussions on setting policies or procedures on unethical practice by others.

Idaho: Monument preservation with respect to highway construction remains a subject of discussion in view of changes that went into effect in July, 2008.... Negotiations continue with the Idaho Department of Lands regarding their refusal to adhere to state law on solicitation of professional A&E (surveying) services, based on QBS criteria.... ISPLS has participated in meetings within the GIS community – areas of interest are identification of control point locations with accurate coordinate data and associated meta-data to be used in upcoming national NAIP aerial imagery coverage. Agencies that are concerned with parcel data are also searching for more accurate point data to refine their cadastral framework. One suggestion that has been offered is a proposed code requirement to place an Idaho State Plane Coordinate System value with meta-data on all corner records filed.

Montana: MARLS implemented a message board accessible through the website.... Monument Preservation bill passed the Senate and has a good chance of getting passed into law as it has support of a surveyor in the senate and a representative.... Several firms and individuals have been sent cease & desist

letters resulting from an investigation by the Board into yellow page advertising.

Nevada: Jeff Ohrn, longtime WFPS Delegate is retiring from WFPS after this meeting.... Great Basin College is on track for the first three graduates from the land surveying/geomatics program this May... As a cost-saving measure, the NALS Board approved producing two issues of the Nevada Traverse in digital format and two issues printed in 2009.... The NALS website has been modified to provide for paying dues on-line.... Due to current budget constraints, NALS will be sending only one delegate to WFPS meetings.

New Mexico: A new rule on Real Property Electronic Recording is in place and can be viewed at: [http://www.nmcpr.state.nm.us/nmregister/xix/xix17/xix17 adopted.htm](http://www.nmcpr.state.nm.us/nmregister/xix/xix17/xix17%20adopted.htm) License application and renewal fees will be increasing due to increasing economic costs.... The New Mexico State University received a Height Modernization grant.... NMPS will be holding a Digital Precise Leveling workshop in May in Albuquerque.... NMPS dues have increased 50%.

Oregon: A PDF fill-in membership form is available on the PLSO website.... PLSO offers 6 months free membership to individuals who were successful in passing the LS exam.... Thirty high school students were invited guests to the 2009 conference as well as over thirty students from survey programs at Chemeketa Community College, Clark College and OIT.... The average entry level salary for 2007 graduates of OIT was \$55k. One OIT grad received a starting salary of \$72k and two graduates starting at \$64k.... under current law, counties may charge a fee to a maximum of \$20 per instrument. Due to the present economy, County Surveyors want to remove the cap on this fee. PLSO has approved a cap of \$25.

Utah: Legislation has been introduced to require County Surveyors be appointed rather than elected.... Everyone thanked UCLS for hosting a great joint conference concurrent with this meeting.

Washington: Washington Board of Registration is looking at the question of technology driving the need for licensure.... The Survey Advisory Board has been working on a revision to the Permit for the temporary removal or destruction of a surveying monument form.... LSAW is currently using the CST program.

Wyoming: Wyoming State Board of Registration has submitted revisions to state law, updating education requirements and streamlining its rules and regulations, contained in HB0044.... Their Cheyenne Chapter has teamed with the Northern Chapter of PLSC to jointly host a workshop.

Other items of interest:

- The WFPS web site is: www.wfps.org.
- The 2011 Conference be held in Spokane, WA with Idaho (ISPLS), Washington (LSAW) and WFPS.
- The scholarship committee has updated the application form on the WFPS website.

Our next meeting will be held on June 13th, in Reno, Nevada.

Joint Board Meeting Announcement



The Western Colorado Land Surveyors (WCLS) is pleased to host the next meeting of the PLSC Board of Directors, on May 16th, 2009 in Grand Junction. Members of the PLSC, particularly those in the western parts of the state, are welcome and encouraged to attend. This is your opportunity to meet with key members of our statewide organization.

The WCLS meeting will begin at 9:00 A.M. and the PLSC Board meeting will start immediately thereafter, at approximately 11:00 A.M.

Address: City Building, 250 N. 5th Street, in the center of Grand Junction.

For more information, contact Rick Mason, WCLS at ramasonGJ@yahoo.com

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February 28, 2009 PLSC Board of Director's Meeting Minutes

**Meeting held in conjunction with the CCPS Annual Surveying Conference
Tivoli Center - Metropolitan State College of Denver
900 Auraria Parkway, Room 640 Denver, CO. 80204**

A complete report of the draft minutes is available online at www.plsc.net. This version has been truncated where designated with ☺ to reduce printing costs.

Call to Order: 6:30 PM

Recognition of PLSC Board Members and Officers Present:

Tom Adams, Michael Greer, Diana Askew, Micheal Bouchard, Doug Berling, Roger Nelson, Russell Clark, Patrick Green, Stan Vermilyea, David Freienmuth, Gary Gable, JB Guyton, Gene Kooper, Warren Ward

Welcome of Guests:

Ron Perkins, Steve Varriano, Brian Dennis, Todd Beers, Mark Johannes, Jim Rihanek, Rob Snodgrass, Bryan Clark, Pam Fromhertz, Warren Andrews, Doyle Abrahamson, Dan Smith

Approval of Minutes from Previous meeting: ☺

Motion: Gary Gable moves to approve. Dave Freienmuth seconds. No Discussion

Vote: unanimous approval

Reports

Outgoing Executive Director, Gene Kooper

Gene Kooper reports of the status of the continuing competency bill with the AES Board (to be published in *Side Shots*). Gene asks the board to consider the questions in his report. ☺

New Special Committee: Tom Adams believes we need a special committee. The AES Board Workgroup consists of Gene, JB, and Ed Bristow. This committee will report directly to the PLSC Board and not through the legislative committee. This new committee does not need to be chaired by a board member. PLSC should meet with DORA after the legislative session is over and talk about how flexible they may be. Increased licensure fees will cover the cost for the Architects.

Motion: Roger Nelson moves to proceed forward with pursuing continued competency requirement for the next legislative session (2010). Gary Gable seconds.

Discussion: ☺

Vote: 1 opposes 10 approve - motion approved (See written report ☺)

Secretary-Treasurer, Diana Askew

SEE CHART BELOW

PLSC and CSEF Treasurer's Report - As of 2/28/2009			
<i>Account</i>	<i>1/1/2009 Balance</i>	<i>1/31/2009 Balance</i>	<i>2/28/2009 Balance</i>
Bank Accounts			
Checking at Wells Fargo - Main	68,089.14	77,292.53	75,990.14
CSEF Checking at Wells Fargo	13,458.18	13,458.70	13,459.16
CSEF Savings at Wells Fargo	40,069.18	40,082.63	40,094.33
Merchant Checking at Wells Fargo	9,531.61	15,516.00	26,884.14
TOTAL Bank Accounts	131,148.11	146,349.86	156,427.77
Investment Accounts			
Investments at Merrill Lynch	18,211.45	18,167.45	18,043.50
Roger Patterson ICA Fund	18,187.68	18,187.68	17,473.74
Roger Patterson WMI Fund	19,036.59	19,036.59	17,866.95
TOTAL Investment Accounts	55,435.73	55,391.73	53,384.20
OVERALL TOTAL	186,583.84	201,741.59	209,811.97

Budget for coming year (See written report ☞)

Motion: Roger moves to approve the budget as presented. Micheal Bouchard seconds.

Discussion: ☞

Vote: Unanimous approval

Status of Audit: The 2008 audit is complete and the 2009 audit will be completed with the tax returns. Diana reminded the chapter members in attendance that the treasurer reports need to be completed and forwarded to her by March 15.

Discussion regarding PLSC Board meeting-related expenses and reimbursements: ☞

Executive Director, Diana Askew

Report on Executive Director meeting at the ACSM Conference, February 20-23, 2009, Salt Lake City, UT ☞

President, Tom Adams

Incorporation of Chapter Summit next month.

Possible change of bylaws: Tom acknowledges those who have offered good suggestions on changes to the bylaws. The PLSC Board needs to make a serious study and will need the approval of the full board of directors and a vote of the membership once the changes are determined. The process for approval will begin with the Executive Committee, then the Board will vote on each item and then the items will require a vote of the membership.

PLSC Meeting rotations - Tom wants a consensus from the board on whether we should continue to meet at the chapter conferences and/or consider a web conference instead. An example is our upcoming meeting in Grand Junction during the WCLS Seminar. Possible changes would be to meet at their chapter meeting instead of at the seminar or if we find a place here in town, we could host a teleconference.

Discussion: ☞

Membership Dues: Is this an appropriate time to increase dues? ☞

Motion: Roger moves to find out what comparable dues are around us and then add 10%. The PLSC Board will then vote by email. Doug Berling seconds.

Discussion: JB will send the information to Diana and she will send it out for a vote. Doyle Abrahamson adds that the officers of the PLSC need to take responsibility to do something or the PLSC will die. Di will get something out within two weeks of receipt of the information from JB and will hound the board until they reply.

Vote: Unanimous approval

NSPS delegate, Warren Ward

JB Guyton received awards for plats from the NSPS. The NSPS Governor goes to two NSPS meetings per year. Warren is going to Washington with the railroad legislation (see written draft). The discussion regarding the bill is down to these three objectives. Please contact

your representative and give them the same 3 objectives. The NSPS Foundation awarded \$280 from the PLSC. Warren indicated that the trip to Washington DC in September will cost around \$1500.

Colorado NGS Advisor, Pam Fromhertz

Pam passed around an announcement of the new director of the National Geodetic Survey, Juliana Blackwell. In addition, Pam announced that the CORS program is celebrating 15 years, has 200 stations in backlog and is a self sustaining program. More information is available on the NOAA and NGS Web site about that and in addition, there is a benchmark resetting guide, more on GRAV-D, the Opus database, and more on Geoid 09. Pam reminds us about the upcoming 40th Parallel party Friday March 12th, and adds that Gaby will invite high school kids and speak to them.

Dan Smith provides an update on CSRN: Pam Fromhertz started the GPS users group, which was then renamed G2. That group is now the CSRN. We have a statewide reference system which is available for a small fee for use 24/7. Dan also provided an update on the Colorado Height Modernization program progress.

WFPS delegates, Dave DiFulvio and JB Guyton

WestFed wants two representatives from each state; however, three other states now have just one. As a cost saving measure, JB will continue to attend the meetings if the board approves.

MSCD Surveying and Mapping Advisory Council, chair JB Guyton

At Metro the distance learning program is growing. There will be more updates regarding the status of the Surveying and Mapping program at a later date.

CSEF – Mike Bouchard

Micheal reports that the current CSEF Board intends to rewrite the by-laws to extend the directors for 4 years and to include one of the members of the PLSC Board to be on the CSEF board. Ed Bristow will review the revised by-laws. They want a written document or memo to define the terms of the outstanding loan to the PLSC from 2007. CSEF wants to be the keeper of all the PLSC educational and scholarship funds, will collect the funds, and will take care of any requests for scholarships and funds. The recommendation is for the CSEF Board will replace the existing PLSC scholarship committee.

Motion: Micheal Bouchard moves that the PLSC allow CSEF to hold and control all educational or scholarship monies they now hold and any monies that will be donated in the future. Furthermore, that the PLSC allow CSEF to receive, evaluate and award those scholarships and educational requests deemed worthy. Stan Vermilyea seconds.

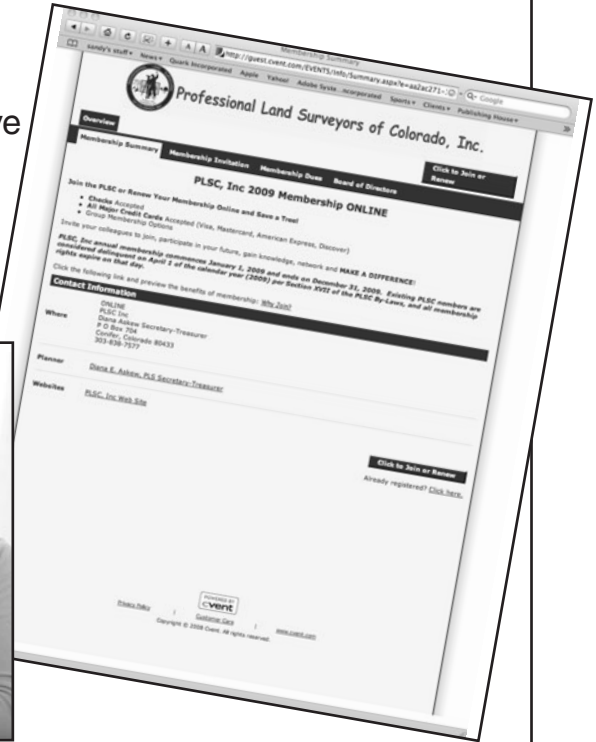
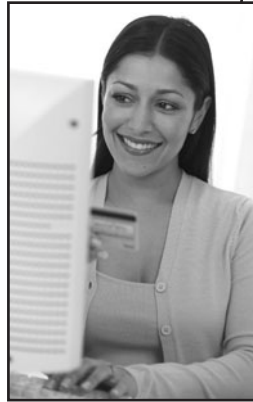
Discussion: Gene Kooper will produce the document or memo regarding the 2007 loan, which will be discussed at a later date. CSEF will revise the bylaws as appropriate.

Vote: 6 oppose 4 approve – motion voted down

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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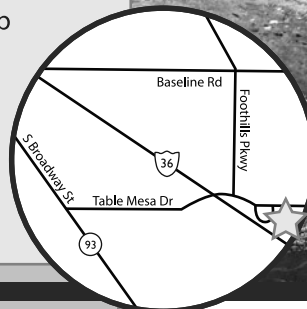
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Legislative Committee Report, Roger Nelson

The Committee has revived the “CRS as it pertains to surveying” and would like to put links on a jump drive and sell those in lieu of the blue book.

At what capacity do we want to hire the lobbyist for 2009? Discussion tabled until the PLSC Board of Directors approves the legislative committee to proceed with legislation for 2009. It was determined that Peg Ackerman should be hired to watch for legislation that would be harmful to surveyors until May, 2009.

Motion: Diana Askew moves to fund Peg Ackerman up to \$1000 and through May 2009. Gary Gable seconds.

No discussion

Vote: Unanimous approval

Motion: Roger Nelson moves to accept the affidavit of correction language as submitted as is shown in this report 38-51-111. Dave Freienmuth seconds.

No discussion

Vote: 2 oppose 9 approve – motion approved

Motion: Gary Gable moves that the PLSC Board of Directors review the three items that were brought forth by the legislative committee in September and go to an email vote in two weeks. Each item will be voted upon individually. Gary Gable will move by email for a vote after the items are emailed to the new PLSC Board Members. Tom will email a request for a vote by the PLSC Board of Directors. Mike Greer seconds.

No discussion

Vote: Unanimous approval

PLSC Standing Committee Chair Appointments

Nominations and Elections Committee, Chair Doug Berling

Legislative Committee, Chair Roger Nelson

Liaison Committee, Chair Gary Gable

Survey Monumentation and Standards, Chair ⌘

Membership Committee, Chair Mike Bouchard

Ethics and Fair Practices, Chair Patrick Green

Executive Committee, Chair Tom Adams

Members: Mike Greer, Diana Askew, Mike Bouchard

Publications Committee: Mike Greer

Education Committee, Chair Dave Freienmuth

Awards Committee, Chair Stan Vermilyea

New Business

Dan Corcoran is term limited as a member of the AES Board and the position is open – There is a form on the governors Web site. Term up June 30th, 2009.

Next Meeting: ⌘

Adjourn: 10:30 PM

Respectfully submitted,

Diana Askew, PLSC Secretary-Treasurer

40th Parallel Monument Dedication



Photo by Kurt Ernstberger

The dedication ceremony of the 40th Parallel Monument on Baseline Road in Boulder took place on March 20th, with a good turnout and much local publicity. In this photo, City of Boulder Transportation Project Manager Alex May points to the dedication plaques on the monument, where the PLSC is cast in bronze as one of the contributors to the project. Side Shots Editor J.B. Guyton is standing to the right of the stone, with Boulder Deputy Mayor Crystal Gray in front of him. The location, on a busy bike/pedestrian path near a bus stop on a busy street will provide the surveying profession with favorable publicity, history and education to members of the public for years to come.

Legislative Committee Update

By Roger Nelson, PLS, Chair

Suggested changes/amendments to CRS 38-35-109 should we decide to place the surveyor's affidavit of correction under a new 38-51-111. A full explanation and lists of both the majority and minority opinions of the committee, can be found at www.plsc.net.

Amend 38-35-109(5)(b)(III) to read

"If furnished by a licensed professional land surveyor, a surveyor's affidavit of correction may be prepared and shall conform with CRS 38-51-111 or a survey plat as defined in CRS 38-51-106 may be prepared that reconciles conflicts and ambiguities in descriptions of land in recorded instruments"

Add the following to 38-51-102

Definitions:

CRS 38-51-102(20)

"Surveyor's Affidavit Of Correction" means an affidavit prepared by a professional land surveyor who is currently licensed with The Colorado State Board of Licensure for Architects, Engineers and Land Surveyors.

CRS 38-51-102(21)

"Professional Land Surveyor Of Record" means the licensed land surveyor or licensed professional land surveyor or licensed registered land surveyor whose signature and seal appears on the original subdivision plat, survey plat or parcel description as currently recorded in the office of the clerk and recorder of the county in which said subdivision, survey plat or parcel description is situated.

Add 38-51-111 to our current statutes to read:

38-51-111. Surveyor's Affidavit of Correction

(A) In the event that error(s) as described in this section (1) are discovered on any subdivision plat as defined in CRS 38-51-102(20), any survey plat prepared in accordance with CRS 38-44-112, or any other survey plat duly recorded in the office of the clerk and recorder of

the county in which said subdivision or survey plat is situated, the professional land surveyor of record may prepare and record in office of the clerk and recorder of the county in which said subdivision or survey plat is situated a surveyor's affidavit of correction to remedy such error(s)..

(1) The following types of error(s) may be corrected by said surveyor's affidavit of correction:

(a) Any bearing(s), distance(s) or elevation(s) omitted from a recorded subdivision plat, survey plat or parcel description.

(b) Any bearing(s), distance(s) or elevation(s) that have been labeled incorrectly on a recorded subdivision plat, survey plat or parcel description.

(c) Text that appears upon a recorded subdivision plat, survey plat or parcel description that has been misspelled or mislabeled.

(d) Any other error(s) or omission(s) where the error(s) or omission(s) is/are ascertainable from the data shown on a recorded subdivision plat, survey plat, or parcel description.

(e) An error(s) within the parcel description shown on a recorded subdivision or survey plat.

The surveyor's affidavit of correction shall contain only the signature and seal of the professional land surveyor of record and shall not be subject to review and/or modification by others.

(B) In the event that error(s) as described in section 38-51-111(a)(1) are discovered within a parcel description prepared by a licensed professional land surveyor and duly recorded in the office of the clerk and recorder of the county in which the parcel is situated, the professional land surveyor of record may prepare and record in office of the clerk and recorder of the county in which said subdivision or survey plat is situated a surveyor's affidavit of correction to remedy such error(s).

The surveyor's affidavit of correction shall contain only the signature and seal of the professional land surveyor of record and shall not be subject to review and/or modification by others.

(C) It shall be the responsibility of the clerk and recorder of the county in which said subdivision plat, survey plat or parcel description is situated to record all surveyor's affidavit(s) of correction prepared pursuant to paragraphs A and B above and provide one or both of the following:

(1) A written reference upon the recorded subdivision plat, survey plat or parcel description to said surveyor's affidavit(s) of correction.

(2) An electronic reference to the recorded subdivision plat, survey plat or parcel description to said surveyor's affidavit(s) of correction.

(D) Nothing in this section shall be construed to permit changes in courses, distances or elevations for the purpose of redesigning any lot, tract or parcel configurations.

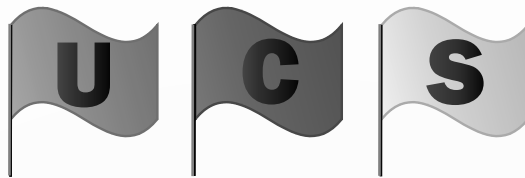
(E) Should a non-survey related error(s) occur on a recorded subdivision plat as a result of information required to be placed on said document by any reviewing governmental body as a condition of approval by that governmental body, it shall be that governmental body's sole responsibility to obtain the services of the professional land surveyor of record to prepare a surveyor's affidavit of correction to remedy such error(s).

The surveyor's affidavit of correction shall contain only the signature and seal of the professional land surveyor of record and shall not be subject to review and/or modification by others.

Amend CRS 30-28-133(9) to read CRS 30-28-133(9)

The subdivision regulations adopted under this section may provide that, without a hearing or compliance with any of the subdivision, referral, or

continued on page 22



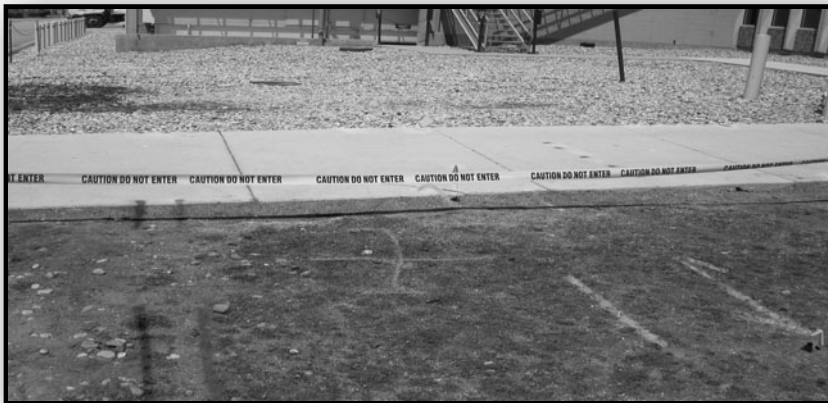
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review requirements in this section and section 30-28-136, the board of county commissioners may approve a correction plat if the sole purpose of such correction plat is to correct one or more technical errors in an approved plat and which such correction plat is consistent with an approved preliminary plan. Should the technical errors in an approved plat be error(s) such as described in 38-51-111(a)(1), then a surveyor's affidavit of correction as defined in CRS 38-51-102 shall be prepared in lieu of a correction plat and shall conform with the requirements of 38-51-111.

Explanation: This idea was brought to PLSC by Mr. Sandy Gerard, PLS, and member of PLSC, after he had a frustrating experience in one Town in Grand County: His objective was to record a notice of corrections of several typographical errors on a subdivision plat he had signed (the monuments were set correctly in the ground and there is no material problem with the survey). This process turned out to be what he termed as a very frustrating, time-consuming and costly experience involving town planners, town attorneys, landowners, and THEIR attorneys. Mr. Gerard believed that none of the extraneous red tape was called for in the existing statutes, was driven by a complete misunderstanding both of the problem and the solution by the lawyers, and that PLSC would be able to enact a simple law that allows surveyors to simply and professionally record their corrections.

The legislative committee debated the issue at several meetings, as did several Chapters and Mr. Ed Bristow. This language is the result of several attempts by Mr. Gerard to reword the proposal, and to place it in the surveyor's section of the statutes as opposed to attempting to clarify the existing law.

It is notable that this particular Town does not have a licensed surveyor on staff to check subdivision plats (nor do any of the Towns in Grand County). It is also an issue that I was aware of as county surveyor in Grand County, but was out of my jurisdiction when Mr. Gerard

contacted me for assistance. In fact, as county surveyor, I am aware of 3 recent similar cases in Grand County, involving 3 different Towns, 3 different surveyors (one from Denver), and 3 different Town Planners and attorney groups. Each case was "botched" in a different manner and I have concluded that the law as currently written is not clear to Town Planners, attorneys, OR surveyors.

In one of these cases, the surveyor who merely omitted a BEARING from an otherwise correct subdivision lot line was not allowed to record a correction plat by the Town without first being required to comply with unnecessary and costly red tape. The title company wouldn't insure title. The sale of the property nearly aborted and several parties prepared to sue. The surveyor who could have fixed the problem in a matter of minutes with a clear law was instead presented a bill for attorneys fees by the landowner.

MAJORITY OPINION:

1. Surveyors are responsible and liable for the information on their subdivision plats, and are best suited to record appropriate typographical corrections. Towns and counties usually state on subdivision plats

that they are not responsible for the correctness of any information on the plat. Lay people, including attorneys, landowners and government personnel have no training or experience in surveying, and cannot distinguish the difference between fixing an error that does not change property, and the actual "changing" of property. (Governments are only allowed by law to subdivide or change known property).

2. The problem is not isolated to Grand County. In Douglas County, one has to apply to the planning department and follow their bureaucracy and review process as if amending a lot line. We believe this is inappropriate jurisdiction.

3. The existing law is definitely ambiguous, albiet an attempt to allow surveyors to record affidavits of correction.

4. Placing a new, clear law in the surveyor's section of the statutes would divert this task away from unqualified lay people and place it under the jurisdiction of the responsible professional.

MINORITY OPINION:

1. The law allows for affidavits of

correction. To the extent that it is misunderstood or misapplied can not be remedied by a new law.

2. Tampering with the statutes could result in unintended consequences.

3. Surveyors have no right to tamper with the established, legal term "affidavit".

4. The Secretary of State should be petitioned to instruct Clerks and Recorders to record all affidavits of correction instead of enacting a new law.

5. The Legislative Committee should be spending it's time on other issues.

6. To be fair to the minority, please read and consider all previously submitted comments by Rick Mason, from the Western Chapter.

This is my attempt to be very brief. I would be happy to answer any questions you may have, both as a county surveyor who has dealt with correction plats, and as a participating member of the Legislative Committee.

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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.

CCPS

The CCPS 2009 annual conference was a success despite the lower attendance due to our current economy. I would like to thank the following speakers at the February Conference: Michael McInnis, Ron Childs, Maria Massaro, Charles Adams, Mason Finks, Gary Gable, Charlie Tucker, Randy Bloom, Roger Nelson, Randy Fortuin, Alan Blair, Ken Perry and additional Hixon staff.

A round of applause goes out to JJ Rihanek, PLS who arranged all the delicious food from Biscuits and Berries, to Bill Buntrock, PLS for arranging the venue and to the CCPS Board of Directors for the participation in all the necessary tasks required for the event.

Special and continued thanks to Alan Blair, PLS who is the CCPS webmaster assisting in the maintenance of the web site. We greatly appreciate all of your efforts, Alan!

Thanks to our vendor members who purchased booths at the 2009 CCPS conference and in many cases donated items for door prizes: Accurate Core Drilling, AGA Geodimeter, AJ Ventures, A & A Toppers, Colorado Department of Transportation, Frontier Precision, Hixon MFG & Supply, Metropolitan State College of Denver, National Geodetic Survey, North American Mapping, O'Neill's Positioning Service, Rocky Mountain Lasers, Site-wise Utility Services, SKLD, Underground Consulting Solutions and Vectors Inc. In addition, AGA Geodimeter, Accurate Core Drilling, Underground Consulting Solutions, Sitewise, Frontier Precision, Hixon MFG & Supply also sponsored meals or break snacks. Without our vendors and sustaining members the conference would not have been a success.

The CCPS would like to thank the following outgoing board members for the generous donation of their time and dedication to the

society in general: Bill Buntrock, PLS - President, Kurt Ernstberger - Treasurer, Randall Zanon, PLS - Director, John Doty, PLS - Director and Ann Oden - Director.

CCPS awarded one \$1,500 scholarship and three \$750.00 scholarships in the spring of 2009. The Georgia L. Satterlee scholarship (\$1,500) went to Remus Campeon. Two \$750 scholarships went to Colin Kennedy and Carlos Madrid who are attending Westwood College. The final \$750 scholarship (\$500 contributed from the PLSC and \$250 from CCPS) was awarded to Alec Thomas from Metropolitan State College of Denver. CCPS congratulates these students for their hard work.

The next CCPS General Membership Meeting will be held at: Table Mountain Inn, 1310 Washington Avenue, Golden, Colorado on Thursday May 21, 2009 at 7:00 P.M. Free dinner begins at 6:30 P.M., cash bar opens at 6:00 P.M. Guest speaker: Alan Blair, PLS, with the Federal Highway Administration will be discussing a project near Devils Lake, Arizona that involved some interesting surveying requirements. Guest Vendor: Rocky Mountain Lasers. General Membership Meetings are held on the fourth Thursday of the following months: January, March, May, August and October.

The next Board of Directors Meeting will be held at: Nolte Associates, 8000 South Chester Street, Suite 200, Centennial, Colorado 80112 on Thursday April 2, 2009 at 6:00 P.M. Board of Directors Meetings are held on the first Thursday of every month.

Bill Buntrock, PLS
CCPS President

CSRN

The Colorado Spatial Reference Network held its most recent board meeting on March 4, 2009 at AECOM during which the following 2009 Action Plan was finalized and

approved: 1) Advocacy and Outreach 2) Website 3) User Guideline and Best Practices 4) Training and Workshops 5) Industry Showcase. The action plan was developed with realistic and sustainable goals. The creation of a "getting started/best practice" document is underway. A task force has been assembled to present it at the fall GIS in the Rockies Conference.

Do you have a project that benefited from using a real time reference network? If so, the CSRN would like to know about it. We are seeking projects to showcase during our upcoming summer workshop to be held in June and for posting on our soon to be released updated website. To submit your project, please contact any CSRN board member or myself directly. Our next board meeting will be held on April 22, 4:00 p.m. to 6: p.m. at Bohannon Huston's office and as always, is open to all.

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 or have questions please contact us through our website at www.CSRN.us or you may contact me directly at 303-512-4401 or daniel.a.smith@dot.state.co.us.

Dan Smith
CSRN President

NC/PLSC

As this issue was going to the press, we were preparing for the Spring 2009 Technical Session, a joint effort by the Professional Land Surveyors of Wyoming, Southeast Chapter and the Professional Land Surveyors of Colorado, Northern Chapter. It was held on April 24th and 25th at the Laramie County Community College campus in Cheyenne, Wyoming. Speakers included Gary Grigsby, PE-PLS speaking about helicopter-based LiDAR; Bob Johnson, Glen Vlass and Milbert Krohn on the BLM's

Geographic Coordinate Data Base; Gary Gable and Charlie Tucker on the historical review of railroads as it relates to land surveyors; and Ken Perry and John McGregor of Hixon on the Smart Net Colorado reference station network.

The Northern Chapter continues to meet the first Wednesday of each month from 6-8:00 PM. Each meeting is hosted by a member's company or organization. We start with a dinner at 6 followed by a business meeting from about 6:30 to 7 or so and then a technical session presented by a member from 7 to 8. At the April 1st meeting, Dale Greer and Carl Sumpter gave us the details on 30 new Larimer County – City of Fort Collins control monuments which have been placed, surveyed and are now being analyzed prior to submittal to the NGS for final determination.

If you would like to be on our emailing list for meeting announcements please contact Rob Hintz at the City of Fort Collins 970-221-6605 or email him at rhintz@fcgov.com.

Ron Perkins
President - NCPLSC

NW1/4

The NW1/4 spent quite a bit of time this spring concerned with an issue called an "Owner's Affidavit." This document is commonly used by title companies in this area to avoid having to order a new Improvement Location Certificate. Chapter members Peter Epp and Lloyd Powers investigated this practice.

The case in point was a property in Craig where the title company presented the seller an "Owner's Affidavit" at closing, declaring that there had been no changes to the property since the last certified ILC. The owner, naturally wanting to sell their property, signed the document. How-

ever, Peter Epp and Lloyd Powers raised the question as to whether the title company and the owner were essentially practicing surveying by certifying to a prior ILC, and neither entity was a licensed surveyor. The matter was passed on to the PLSC Board for their interpretation and they found that the Owner's Affidavit did not meet the minimum requirements for an ILC. We knew that it is not an ILC at all! It is a written document without any north arrow, surveyor's certificate, etc., etc. Thus, it appears that the Board dodged the actual issue of whether the title companies and landowners were acting as de-facto surveyors by signing a written document stating that the prior ILC is unchanged. Several of the members of the NW 1/4 are clearly wondering if the Board is more focused on harassing legitimately licensed individuals that may have accidentally forgotten to file a monument record or plat, one in a hundred or five hundred, as opposed to an ongoing practice by non-licensed individuals that impacts surveyors and the public. We find this disturbing.

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

SCPLS

Our elections were held around the beginning of the year and the results were as follows:

Randy Reeves did not seek reelection as a Director and Mike Bouchard chose not to seek reelection as Secretary and instead ran for an open Director position. Bill Brooks did not seek reelection as a Director and was elected as Secretary.

Dan Hanten was reelected as Treasurer. Nathan Lira was reelected as a Director and we have two new Directors: Steve Parker and Mike Bouchard.

Many thanks to Randy for his contributions; we are glad that he

will continue to be involved in organizing the annual Paul Grout Golf Tournament in August.

Gene Kooper came to our February membership meeting and shared information about the architect's continuing competency requirements. Much discussion ensued as members shared their opinions about this issue.

The Southern Chapter Fall Workshop committee continues to work on the details of the upcoming workshop in September and plans are underway for our annual Christmas party.

Details of these and other events will be available on the chapter page at www.plsc.net.

Thank you,

Mark Johannes
President, SCPLS

SWC/PLSC

At the February meeting, we had discussions concerning officers not attending meetings, election of new officers and the subject of the June seminar. The consensus was that we will hold the June seminar this year, and elections of new officers will take place at the end of summer.

The SWC/PLSC will be holding its annual seminar on June 12 & 13. We will have a full 8 hour day on June 12 and a 4 hour day on June 13. The speaker list is not yet solidified but speaker updates and other chapter news can be found at our website (www.swcplsc.com.)

Our next chapter meeting will be held on April 16, 2009 at Main Street Brewery located at 21 E. Main Street in Cortez at 6:00 p.m.. Food and beverages will be available.

Thomas E. Au, PLS
President, SWC/PLSC

C H A P T E R N E W S

WCLS

Western Colorado Land Surveyors met on March 11. We discussed the PLSC board meeting held in February. Those in attendance were split on the issues before the Board and we sent Pat Green as our rep to vote his conscience. We also discussed having a joint meeting with PLSC for our next meeting. I am happy to say that the PLSC Board has agreed to conduct their meeting with ours. We are also presenting Mr. Jeff Lucas

of POB fame at our Spring Seminar on May 1. The details of the seminar are posted on the PLSC website.

Details regarding the joint PLSC/WCLS meeting are as follows: On Saturday, May 16 at the Grand Junction City Auditorium, we will offer a "Town Hall" style forum for chapter members to discuss issues that concern them directly with the Board. The Town Hall will hopefully be augmented with connections via tele-conferencing and a webinar type set-up. Ideally, chapter

members should communicate to WCLS or PLSC questions they would like to discuss ahead of time, especially if they don't plan to attend. Following the "Town Hall," PLSC will proceed with their normal agenda. We expect that the event will start at 9 AM with the Town Hall forum, break for lunch (which is provided) and finish mid-afternoon. Please make the time to come.

Rick Mason
President WCLS

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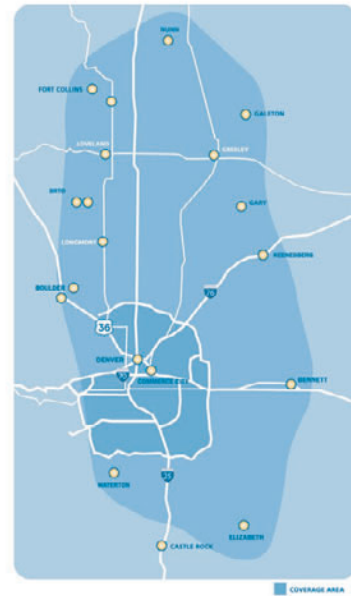
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