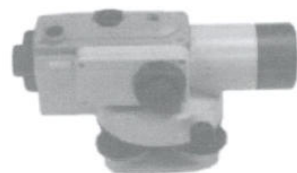


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VOLUME 17, NO. 3

NOVEMBER 2005



PLSW



www.plsw.org

A (Very) Short History of RTK GPS

by
Dr. Lon G. Toody, Geodesist

October 1995 -

We were toting around an RTK rover backpack that weighed 36 pounds - not including the rover GPS antenna which weighed another three pounds.

The receiver consumed about 12 watts of power, and the lead-acid batteries weighed 6.5 pounds each.

There were enough cables in that rover backpack to wire a Las Vegas casino!



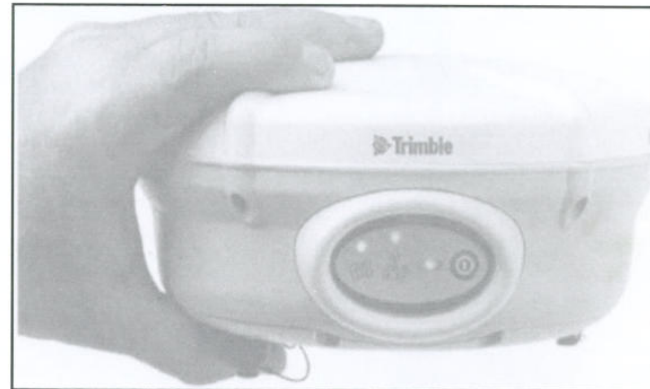
Remember when backpack meant backache?

October 2002 -

Introducing the Trimble 5800 rover receiver - the first GPS receiver with Bluetooth cable-free wireless communication! No cables at the rover!

The Trimble 5800 combines the GPS receiver, Zephyr GPS antenna, internal radio modem, and battery into one compact, 2.7-pound unit. One internal battery powers the 5800 for over five hours.

You can use the Trimble 5800 rover with your existing Trimble 4000 / 4700 / 4800 / 5700 base receivers. Call Inland GPS for more information.



You asked for it - a cable-free, no-backpack GPS rover!

Please call (or check our Web site) for more information on the Trimble 5800 RTK rover and the Trimble ACU Survey Controller with color graphical display

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2005 PLSW MEMBERSHIP APPLICATION PROFESSIONAL LAND SURVEYORS OF WYOMING

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CLASS OF MEMBERSHIP APPLIED FOR: (check one only and please submit dues with application, prorated for the remainder of the calendar year)

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AFFILIATE MEMBERSHIPS

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☐ **Special Member**, annual dues \$50. (Not meeting above qualifications but with a particular interest in, or association with, the profession of land surveying.)

☐ **Special Member**, Student, annual dues \$15. (Pursuing a post secondary academic course of study, and currently enrolled.)

☐ **Sustaining Member**, annual dues \$100. (Persons, institutions or corporations desiring to assist PLSW financially.)

I AGREE TO OBSERVE THE CONSTITUTION AND BY-LAWS OF THE PROFESSIONAL LAND SURVEYORS OF WYOMING AND THE CHAPTER THEREOF TO WHICH I WILL BELONG AND TO SUPPORT SAID ORGANIZATIONS IN THEIR ENDEAVORS.

APPLICANT'S SIGNATURE

SPONSOR'S SIGNATURE
(For Affiliate Member applicants only.)

NOTE: All portions of the state have chapters. Chapter dues or assessments may vary in amount. Applications are considered by the board of Directors at quarterly meetings. Send completed application to PLSW, c/o Marlow Scherbel, Sec./Treas., P.O. Box 725, Afton, Wyoming 83110.

REPRINTED MAP

SOURCES OF SNAKE RIVER

SNAKE RIVER EXPEDITION -
JAMES STEVENSON, DIRECTOR

The Northwest Chapter has reprinted, from an old (perhaps first printing) lithograph found in a cabin west of Cody, the map of the Hayden-Stevenson expedition and survey of Jackson Hole, Yellowstone National Park and surrounding vicinity. The map shows the campsites of the expedition, from July 12th, 1872, at Fort Hall, Idaho Territory, up the Snake River, into Yellowstone, and returning to Fort Hall on October 11th.

The reprint measures approximately 28 inches by 29 inches overall, black printing on white background, and is printed on heavy photographic paper.

The map is representative of the cartographic style of the time and uses shading to depict mountain ranges, water lining on lakes and artistic profiles of various ranges including the Tetons.

A 39-page excerpt from "Great Surveys of the American West", by Richard A. Bartlett, published by University of Oklahoma Press, is to be included with the map (reprint permission pending) and details the progress of the expedition.

THE CHAPTER IS OFFERING PRINTS TO PLSW MEMBERS AT THE INTRODUCTORY PRICE OF \$40 PER PRINT, POSTPAID.

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O LINES AND POINTS FAX AND E-MAIL - Our fax number is 307-235-5604 and our E-mail address is dond@wlcwyo.com or johnhh@trib.com.

O PLSW KEY RINGS AND PINS - The South Central Chapter has key rings and pins for sale. Contact Lines and Points.

O SAFETY MANUAL FOR SURVEYORS - Available from the Southwest Chapter. Comprehensive Affordable, Adaptable - \$50.

CD contains entire 206 page manual in both "Word" and "Adobe" in pdf formats that can be edited and adapted for your particular use.

Contact Secretary/Treasurer Ken Magrath - kenm@co.sweet.wy.us or send a check or money order for \$52.00 (includes postage) made payable to:

Southwest Chapter PLS
1010 South Dakota Street
Green River, WY 82935

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PLSW (Professional Land Surveyors of Wyoming) is a statewide organization of Registered Land Surveyors licensed to practice in the Equality State of Wyoming. PLSW is dedicated to improving the technical, legal, and business aspects of surveying in the State of Wyoming. PLSW is affiliated with the American Congress on Surveying and Mapping and the Western Federation of Professional Land Surveyors.

Editorial Staff: John Hibsman, Steve Strang, Don Davis.

Lines and Points subscription \$50/year

Advertising Information

Camera ready advertisements with payment should be mailed to Lines & Points, PLSW, Box 904, Casper, WY 82602

Advertising rates are as follows:

	Year	Issue
Full page	\$350	\$100
Half page	\$225	\$75
Quarter page	\$150	\$50
Business card	\$ 40	\$20
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Special Rates for PLSW Chapters

Deadline for next issue — 15 DEC 05

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by

T. L. McMahon, PLSW
Gillette, Wyoming

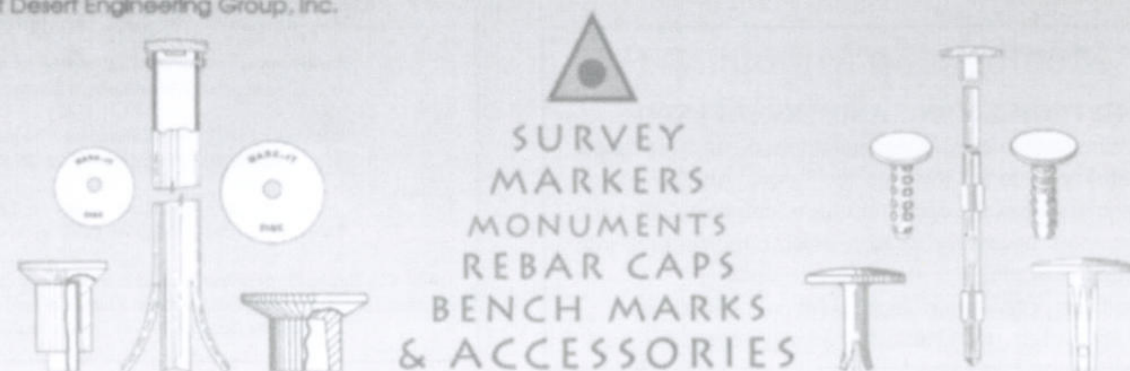
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President's Message

We are fortunate here in Wyoming to have a double season this time of year, Fall & Hunting. For those of us who enjoy the latter it is always a scheduling problem trying to get enough time off to head up country and at the same time keep clients happy.

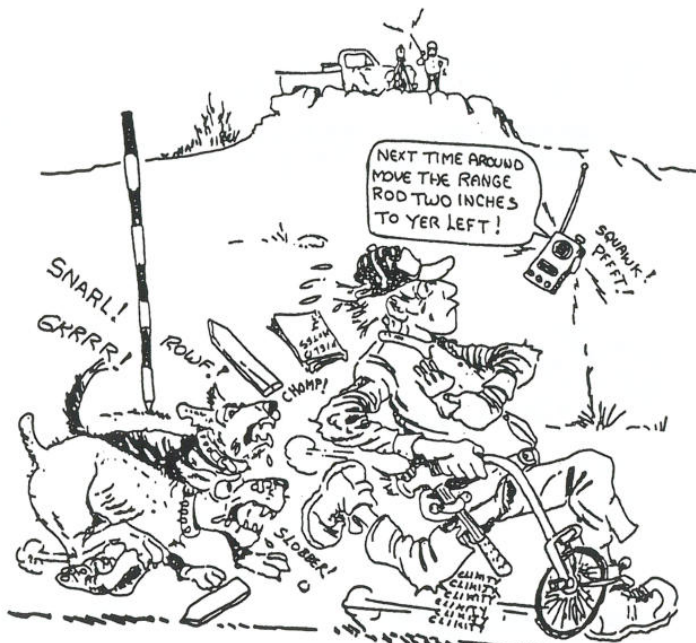
By the time you read this you should have received a questionnaire concerning the educational requirements for registration as a Professional Land Surveyor in Wyoming. The officers of PLSW were authorized by the PLSW Board of Directors at our August 27th meeting to contact the State Board of Registration for Professional Engineers and Professional Land Surveyors for the wording they desired in such a questionnaire. The one you received was the exact wording sent to me by the SBRPEPLS. I hope everyone had the opportunity to fill it out and send it in by the October 6th deadline.

This date was chosen because it is three weeks prior to the Fall Technical Session and we wanted to have enough time to get it on the agenda for the next PLSW Board of Directors meeting in Casper on October 27th.

In other news the Northwest Chapter is in the process of trying to obtain a grant through Northwest College to begin a Survey Technician program. If successful it would run for two consecutive years during the winter months, January-April, 2006-2007. The classes and labs will be taught by members of the chapter. The purpose of the program is to stimulate interest in the surveying profession as well as provide training for students seeking summer employment. There has already been a great deal of interest from surveying firms in hiring graduates from this program.

The ultimate goal is to have some of these people go on with their studies and training to eventually become registered. I hope to see everyone at the Fall Technical Session on October 27th and 28th.

Sincerely,
Richard T. Muscio
President



Survey Video Tapes Available

TAPE ONE

1. *Professional Land Surveyors & GIS; Mapping the Future*; New Jersey Society of Professional Land Surveyors.
2. *Professional Land Surveying: A Career Without Boundaries*; New Jersey Society of Professional Land Surveyors.
3. *A Matter of Degrees*; American Congress on Surveying and Mapping, National Society of Professional Surveyors (1986).
4. *Surveyors of the Sixth Principal Meridian*; Bureau of Land Management

TAPE TWO

1. Wyoming T2 Center: *Surveying Crew Orientation: Surveying Options, Part I.*
1. Wyoming T2 Center: *Surveying Crew Orientation: Surveying Options, Part II.*

TAPE THREE

1. *Introduction to Legal Research*; by West Publishing (nine chapters).

A GOOD PARTY CHIEF

- 1 Make every effort to be at work every day and arrive at work soon enough to get your materials and people ready to leave the office for field work by work time.
- 2 Be always a little suspicious of using the controls set by others. Always check them out. Always have a way to check your work to make sure it is correct.
- 3 Try to put yourself in the person's place that is going to use the notes. Can your notes be plotted? Is the sketch properly oriented?? Have you gotten enough information such as roads (names of roads), houses, poles, trees, etc.? If you are not sure about picking up an item, go ahead and get it anyway. It is better to have too much information than not enough.
- 4 Always remember that the company you work for must make a profit to survive. For you to survive, the company has to make a profit. The type, kind, and amount of services you perform determine your status with the company.
- 5 Do everything you can to improve yourself. Take the attitude that someone is just about to pass you on the road-to-success.
- 6 Do not take for granted that others have gotten permission for you to survey on private property. In each case, assume that it has not been done, contact the owner, state your business, and ask for permission to survey.
- 7 After you have gotten permission to survey, be extremely careful about cutting line in the owner's backyard. It will be more noticeable in the summer than in the winter.
- 8 Do not be afraid to tackle a job that is tough or requires more experience than you have. If you are not sure how to do the job or what is wanted, ask questions. Remember that others have been in the same position you are in, and they got the job done by getting a few pointers along the way.
- 9 If you will, take the attitude of always giving more than 100 percent on any job. There is a great demand for dependable, aggressive, and hard workers. This type of person will always have a job, and will have very little difficulty finding one if the need arises.

Reprinted from the Ohio Surveying News.

Membership Minute ...

WHY PEOPLE JOIN ... AND WHY THEY STAY:

A wise sage once said the characteristic of a true leader is the ability to move toward the future. An association helps you visualize the opportunities which lie ahead – and find the tools necessary to turn those opportunities into sound business plans.

Used with permission from Richard G. Eshen, Jr.,
Rochester, NY. Publisher@compuserve.com

WYDOT Outfits Mapping Plane

CHEYENNE — The Wyoming Department of Transportation has bought a new plane to help with mapping and planning by taking aerial photographs.

The agency retrofitted the Cessna 208 Caravan with a camera by cutting a hole in its bottom, which required Federal Aviation Administration approval, according to Shelly Reams, administrator of the department's Aeronautics Division.

"They can't even be an eighth of an inch off," she said.

The total cost of the plane, including modifications, was \$1.76 million. It replaces a Cessna 206 that the agency used for aerial mapping for 23 years.

"If it says aviation on it, it's going to be expensive," Reams said. "Making sure it was done right was a priority.

"We keep these planes for 20 years. We don't want to have to modify it later."

WYDOT officials plan to train on the plane in Texas before it's put into use later this month.

Reprinted from the Wyoming Tribune-Eagle, July 5, 2005

How to Kill an Association

originally published in 'The Canadian Theosophist' 1920



Don't participate beyond paying your dues – let "them" handle things.
Then complain that members have no voice in management.

Decline all offices and committee appointments – you're too busy.
Then offer vociferous advice on how they should do things.

If appointed to a committee, don't work – it's a courtesy appointment.
Then complain because the organization has stagnated.

If you do attend management meetings, don't initiate new ideas.
Then you can play "Devil's Advocate" to those submitted by others.

Don't rush to pay your dues – they're too high anyway.
Then complain about poor financial management.

Don't encourage others to become members – that's selling.
Then complain that membership is not growing.

Don't read the mail from headquarters – it's not important.
Then complain that you're not kept informed.

Don't volunteer your talents – that's ego fulfillment.
Then complain that you're never asked; never appreciated.

And, if by chance, the organization grows in spite of your contributions, grasp every opportunity to tell the youngsters how tough it was; how hard you worked in the old days to bring the organization to its present level of success.

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“Both have great historic value and can be used decoratively.”
The two plan to remodel West’s store and open in October.
“The fire was a setback, but it could prove to be a good thing in the long run,” he said. “If you’re optimistic and you have a change like that, it only makes sense to see it as an opportunity.”
Reprinted from the Wyoming Tribune-Eagle, Oct. 2, 2005

LOCAL and NETWORK ACCURACIES

This is the second in a series of articles describing various aspects of the readjustment of the position and ellipsoidal heights of the National Spatial Reference System (NSRS) by NOAA’s National Geodetic Survey.

A new way of defining the accuracy of coordinates will be implemented with the publication of the National Readjustment. For each point, both a local and a network accuracy value will replace the current order of the mark, i.e. A-order, Border, first-order, etc. Local and network accuracies are two measures which express to what accuracy the coordinates of a point are known.

Network accuracies define how well the coordinates are known in an absolute sense. The network accuracy is the value that represents the uncertainty of coordinates with respect to the datum at the 95% confidence level. The datum is considered to be best expressed by the CORS coordinates which will serve as fixed control in the adjustment.

The local accuracy defines how well coordinates are known relative to other points in the network. The local accuracy of a coordinate is a value which represents the uncertainty of the coordinates relative to other directly connected, adjacent points at the 95% confidence level. This value represents the relative positional error surveyors can expect between marks in a locality.

Since local and network accuracies will be defined in a graphical sense (i.e. error ellipses), point accuracies may best be expressed through graphical interface systems (GIS). Analytical programs, utilizing error ellipses, can then be developed.

Neither of these accuracy values can be calculated without the covariance matrix for the observations; this matrix can only be calculated from a simultaneous adjustment of all the observational data.

When the National Readjustment is completed, not only will new coordinates become available for each point, the local and the network accuracy of each coordinate will also be published.

For more information contact Maralyn Vorhauer at maralyn.vorhauer@noaa.gov or visit the NGS web site: www.ngs.noaa.gov.

**Recruit a New
PLSW Member
TODAY!**

Hipparchus was “First Surveyor”

Hipparchus, Greek astronomer and mathematician. Born: 190 BC in Nicaea (now Iznik), Bithynia (now Turkey), Died: 120 BC probably in Rhodes, Greece.

He discovered the precession of the equinoxes, calculated the Length of the year to within 6.5 minutes, compiled the first known star catalog, and made an early formulation of trigonometry. His observations were painstaking and extremely accurate. His star catalog logged the positions of the stars in terms of celestial coordinates, Listed about 850 stars, and specified their brightness by a system of six magnitudes similar to today’s.

He adequately accounted for the irregularities in the Moon’s motion that are due to its elliptical orbit. His main contribution to geography was to apply rigorous mathematical principles to the determination of places on Earth’s surface, and he was the first to do so by specifying latitude and longitude.

Title Companies Merge

Converse Land Title Company and Sagebrush Land Title Services of Douglas have merged, according to a press release.

Established in 1919, Converse Land Title has grown to become a widely recognized title insurer in the Douglas-Casper area and is part of a network of offices and agents serving 21 of Wyoming’s 23 Counties for nearly a century. Converse Land Title is backed by First American Title Insurance Company.

The merged operations of the two companies will do business under the Converse Land Title name, offering a full range of title insurance and related services.

Marcia Case, owner and president of Sagebrush Land Title Services, will join Converse Land Title and remain active in the title insurance business.

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PLSW Minutes

27 August 2005

Teleconference

1) Call to Order: Richard T. Muscio, President.

2) Roll call:

President Richard Muscio

Vice President Kevin Jones

Secretary/Treasurer Marlowe Scherbel

Director Bruce Frederick, Northwest Chapter

Director Bill Fehringer, South Central Chapter

Director Don Schraam, Southwest Chapter

Director Paul N. Scherbel, West Chapter

Alternate Director Dennis Dawson (for John Lee), Southeast Chapter

3) Agenda Revision and Adoption of Revised Agenda: There were no revisions. The agenda was adopted.

4) Introduction:

a) Officers and Directors

b) Honorary Members

c) Guests

Introduction was accomplished by roll call.

5) Minutes:

Board of Directors Meeting 14 May 2005 (Enclosure No. 1)

In the future Secretary/Treasurer Scherbel will have the minutes out within 2-3 weeks of the meeting for review and corrections. There was a motion by Dennis Dawson to accept the minutes as corrected and seconded by Bruce Frederick. There was no further discussion. The motion passed.

6) President’s Report:

President Muscio commented that the August meeting seems to be the hardest to get people to attend and to get Committee reports, based on the agenda and past experience. President Muscio encouraged everyone to provide input for the next meeting by October 6. President Muscio will try to keep the teleconferences to 2 hours.

7) Secretary’s Report:

a) PLSW Email

i) PLSW@SSLTD.NET for general

ii) MARLOWE@SSLTD.NET for personal

b) Deadline for Committee Reports – still not receiving them in the requested timeframe (3 weeks prior)

Secretary/Treasurer Scherbel says he is getting caught up on changes for the PLSW Directory, and he will have them available by the Fall Tech Session. Notices for dues will be sent out shortly after the October meeting.

8) Treasurer’s Report:

a) Statement of Income and Expenses (Enclosure No. 2)

b) Statement of Bank Account Balances as of 31 July 2005

i) Savings Account \$ 25,253.30

ii) Checking Account \$ 4,103.01

c) Statement of Investments as of 31 July 2005

i) RBC Dain Rauscher \$ 63,358.06

ii) Check #1228 to Dain Rauscher for \$12,000

Check #1228 from February 2004 in the amount of \$12,000 was received by Dain Rauscher. Secretary/Treasurer Scherbel is not aware of any missing monies and there has not been a drop in account balances. Instead there has been a steady increase from 2004 through today.

d) Secretary/Treasurer Scherbel’s report on research into various account rates for the best investment vehicle

A discussion was held on interest rates from various investment vehicles and which accounts to keep monies in. Secretary/Treasurer Scherbel suggested keeping \$5000 in the Hilltop checking account, moving \$6000 to the Hilltop money market account (must keep \$10,000 there to get 1.15%) to use for expenditures, moving additional funds to Dain Rauscher as the money builds up in the account, moving \$14,250 to the Dain Rauscher money market account which is yielding 2.75%, and keeping CD investments in short-term CD’s. A motion was made by Don Schraam to allow the Treasurer to move monies at his discretion and report activities to the Directors at the quarterly meetings. The motions was seconded by Vice President Jones. There was no further discussion, and the motion passed.

9) Committee Reports:

a) Audit - Finance: Jeff Jones (no report)

(Continued on Page 6)

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- b) By-laws: Alan Cormier (no report)
- c) Convention: no chairman (no report)
- Secretary/Treasurer Scherbel said that John Lee was going to check with the Southeast Chapter. Dennis Dawson did not know anything further, but said he will check with John and the Southeast Chapter, and that they should have it figured out by the Fall Tech Session. President Muscio agreed that it makes the most sense to have the local Chapter take it.
- d) Education: Bill Fehringer (Enclosure No. 13)
- Bill Fehringer reported that he has contracted with Paul Cuomo to do the seminar on October 27-28 at the Parkway Plaza in Casper. Thursday's seminar will be on Advance Land Descriptions and Friday's on Restoration of Lost Corners and Complex Issues on Subdivision of Sections. Mr. Cuomo's expenses will be approximately \$2000 plus airfare (aproximately \$280) and lodging. The labels are ready, but he still needs to put together the brochure and registration form. The cost of attendance last year was \$100 for PLSW members, \$50 for Affiliates, and \$175 for non-members, which included all handouts. Mr. Cuomo's book, Advanced Land Descriptions normally sells for \$60, but will be available at the seminar for \$28. A discussion followed about how to cover the cost of the book. Paul N. Scherbel made a motion to include the cost of the book in the standard registration fee of \$100. Dennis Dawson seconded the motion. Some discussion followed about anticipated costs this year. The motion was passed. Materials will be sent out mid-September.
- e) History: Herbert W. Stoughton (no report)
- Secretary/Treasurer Scherbel reminded the Directors that they need to get their Chapter minutes to Herb for the last 21/2 years, to be included in the history.
- f) Legislative: John A. Steil (no report)
- g) Manual of Professional Practice: Don Oakley and George Dale (no report)
- h) Membership: Stanton J. Abell, Jr., and Herbert W. Stoughton – Marlowe reported that there were no new applicants.
- i) News Letter - Lines & Points: Don A. Davis, John H. Hibsman, Jr., and Steven J. Strang (no report) need new Editor and staff-still waiting for volunteers. A discussion was held about the critical need for a new committee.
- j) Nominations & Elections: Dennis Dawson, Jeff Jones, Don Davis – A report was given by Dennis Dawson and next year's nominees were discussed. A discussion followed as to whether the current officers would be running for another term and whether to make the terms two years instead of one. Dennis Dawson will talk to other members for any additional candidates, and Secretary/Treasurer Scherbel will send out emails ahead of the Fall Technical Session for candidates. Dennis Dawson requested an updated directory be emailed to him. A discussion followed about finding a new newsletter editor and what kinds of incentives could be provided.
- k) PLSW Handbook: Herbert W. Stoughton (no report)
- l) Professional Awards: Richard T. Muscio, President (no activity)
- President Muscio brought up the need for a plaque for Rick Hudson and asked if anyone knew who to contact for the plaque. Dennis Dawson said they had previously obtained plaques from a local engraver – Wyoming Trophy and Engraving – who already has the PLSW logo.
- m) Public Relations: Larry T. Perry (no report)
- n) S.O.S. (Casper Based Hangaround): Paul Reid, Chairman

- (no report)
- o) Scholarship: Scott A. Scherbel
- Secretary/Treasurer Scherbel read Scott Scherbel's report. The applicants were James E. Jacobs, Justin Ness, Brian J. Hunt and Justin Draft. Copies of their applications have been sent to the Committee. The recommendation was \$1000 to Jacobs, \$500 to Justin and \$500 to Brian. Scott Scherbel's recommendation was \$1000 to Jacobs, \$500 to Brian, \$250 to Justin Ness and reserve \$250 for Draft due to incomplete application. Don Schraam was in favor of Scott's recommendations. Paul N. Scherbel made a motion to accept Scott's recommendation. Don Schraam seconded the motion. A discussion followed about the Surveyor Certificate Program. Motion was withdrawn to be referred back to the committee for further information.
- p) Standards, Ethics & Professional Practice: Rusty Blough
- Kevin explained that the Northwest Chapter Officers are the committee and Rusty Blough, as President, is Chairman. Both Bruce Frederick, Director and Kevin Jones, Chapter Vice President, clarified that and made a report of no activity for Rusty.
- q) Trig-Star: Joel T. Ebner. (no report)
- r) Allen Mace Memorial Scholarship Raffle: Chris D. Hamilton (no report)
- A discussion was held about whether to hold the raffle, use mailings instead of the raffle, or do both. President Muscio will contact Chris Hamilton for his input.
- s) Corner Record & Cross Index Plat: Rick L. Hudson
- Kevin Jones for Rick Hudson, made report on sunsetting of the committee which was officially conducted. All new activity regarding the corner record form files and repository changes are administrative and are being worked on by Kevin with Rick's help. It can be considered a task force if necessary, but should just be carried forward as old business. Drop the committee listing.
- t) Investment Committee: Scott Pierson (see Treasurer's report)
- Paul N. Scherbel made a motion to purchase EOG stock. Vice President Jones seconded the motion. A discussion followed about who should be making investment decisions and whether PLSW wants to be in the stock market. The motion did not pass, and the recommendation was made to provide the Investment Committee with suggestions and let them do the research and make recommendations to the Board.
- u) Website Committee: Rich Greenwood (no report)
- A discussion was held about who might be interested in taking over development and maintenance of the website. It was suggested that it would be worth paying someone a monthly fee to take care of it. Vice President Jones will follow up with Rich Greenwood find out how the committee wants to do things and if there are any leads for someone to take it over.
- 10) Delegate Reports:
- Western Federation of Professional Surveyors: Paul A. Reid, Delegate. Published in Lines and Points. (Enclosure No. 3)
- The next convention may possibly be held in San Diego.
- 11) Old Business:
- a) Policy Books
- Secretary/Treasurer Scherbel says there are two policies, and he will put them together and mail them to all Directors.
- b) Website Policy – President Muscio's report
- i) Should we spend money to update?
- ii) Need to find somebody to update daily/monthly

(Continued on Page 7)

Map Buff Finds Station in Shop

By Kelly Mimer
rep7@wyomingnews.com

CHEYENNE - For Myron West, a map is not a directional guide. It's a blend of art, a history and geography.

"I appreciate maps on so many levels," West said. "There's a fascination for many with the way the world was perceived in a different time."

For the last decade West has bought and sold antique maps with his downtown business Far West Maps and Books, specializing in 19th century maps of the American West.

He is one of about 50 antique map dealers in the nation and one of roughly 150 in the world. West has been selling antiques of one kind or another for more than 20 years and focusing on maps and books for the last 10.

It started, he said, with hunting for antiques at garage sales. Once his own home was crowded with them, he sold them on the side when he wasn't working as a firefighter.

But his interests narrowed when he bought a small map collection and started researching them.

"Pretty soon I wasn't interested in anything else," he said.

A self-proclaimed trivia freak and 1999 Jeopardy contestant, West said he always has been interested in geography and history, so this was a natural progression.

Friend and art dealer Harvey Deselms said West is a wise man that he would call if he ever appears on "Who Wants to Be a Millionaire?"

"Visiting with him gets my brain full of so many interesting things," Deselms said. While West didn't win on Jeopardy, he has found his way in the antique map business, traveling around the world to buy and sell maps, writing articles about antique maps and founding the Rocky Mountain Map Society, one of two annual antique map shows in the nation.

These are the things that are making West a leader in the trade in the United States, said Denver map collector West Brown.

Brown said West is becoming an expert in knowing the background of the mapmakers, the historical significance of the map and each maps features.

"As a result of that, customers like to work with him, and map dealers respect him," Brown said. "It's important you enjoy the attractiveness of the maps, but a key part is their historical significance, so you need a good dealer who has a lot of that information."

Brown said West's credibility has improved as well from attending larger symposiums and conferences.

"He knows some of the key librarians who manage the major map collections in the United States," Brown said.

Cheyenne is a small town to sell antique maps, West says.

"This business would be best suited to a larger community and a wealthier community," he said. "But Cheyenne is where I live, and I'm not in a hurry to leave."

Though it's difficult to keep the business going, West said things are getting better as Cheyenne, and particularly downtown, is developed.

And downtown needs weird specialty shops like Far West, he said.

"We need places where people say, 'I never knew there was anything like this around,'" West said. "I hear that a lot."

West has 4 000-5 000 maps, ranging from \$25 to \$25,000.

Finding them is the most challenging part, he said, so he buys collections when he can.

It has been a trial and error business at times, requiring lots of research and knowledge to know a map's story and value, he said.

"Some of the nicest, rarest pieces I've found, I didn't recognize until I'd sold it," he added.

Early in his venture, West sold a fold-out map of Cheyenne circa 1900. He hasn't found another since, though he has been looking.

"I didn't realize how rare it was, and I sold it way too cheap," he said. "I made that mistake a lot when I was starting out."

He said he has learned from those mistakes.

More recently, West attended an estate auction back East, looking to buy some rare books. But among the items was a rolled up map labeled "Explorer's map, 1843."

About three inches of the map was revealed before the auction started. That was just enough for West to see it was a map of John C. Fremont's exploration of the American West.

West guessed they only showed a part of it because it was fragile, but that combined with its poor description meant no one else there knew what it was.

"They thought it wasn't that special, but it is," West said.

The map is worth \$1,500, but West said he paid far less than that for it.

Those are thrilling moments for West — finding a map he or one of his clients is hunting for and better still when the seller isn't aware of the map's value.

The industry's biggest collectible items are cartographic myths — maps that show the world incorrectly, ~

West said. He has maps showing the island of California, the infamous but unreal Northwest Passage and the mythic Sea of the West.

"A lot of it is wishful geography," he said.

West has kept this personal map collection small, deciding early on that it would be counter-productive for his business. But he, too, focuses on a cartographic myth: the Kingdom of Prester John.

Prester John was a legendary king in medieval times, believed first to be keeping barbaric hordes out of Europe with his Christian kingdom in the east. After a fruitless search for the fabled king, it was declared that Prester's kingdom must be in Africa.

From the late 1400s to 1600s, maps showing the northeastern corner of Africa are labeled with the Kingdom of Prester John.

"I haven't made a study of it, but I intend to," West said.

West may have more time for that now that he and Deselms plan to reopen his Far West store as a second gallery for Deselms.

West had told Deselms that he was going to close the shop. It has been a hard year for that block of Lincolnway after a Dec. 27 fire destroyed Wyoming Home and Mary's Bake Shoppe.

The clean-up process closed the sidewalk in front of Far West for about six months, eliminating walk-in customers.

Both Deselms and West say it's a win-win decision to join forces as more people may see the art Deselms' sells due to the high foot traffic, and West won't have to close the store every time he travels for a map show or convention.

"They are pieces that could live happily together," Deselms said of maps and art.

Press Release

The President of Berntsen International, Rhonda Rushing, has announced that Berntsen has begun work on a book honoring the beauty and importance of survey monuments of all kinds, and is turning to the surveying community for help.

"Surveyors have been making their mark on America for generations, and their monuments are a link to the past, little gems and treasures that tell special stories and create unexpected beauty in out of the way places. Survey monuments are the punctuation marks of our country's history. It's time to showcase the art and the stories, and to pay tribute to surveyors who have been marking the past — and the future — of our country for generations, doing their work humbly but also expertly. Berntsen International is proud to be bringing more attention to this little recognized aspect of our nation's greatness."

— Rhonda Rushing

The book will be built around stories and photographs of unique, beautiful, historically significant monuments. Initially we intended to create a 'coffee table' book, a book of high-resolution photographs of monuments as they actually appear in the field. But as the photos started to come in, we were also getting a lot of great stories, and sometimes the stories were more interesting than the photos!

We're looking for the kinds of stories you've been telling to your kids, or swapping with colleagues at conventions. The ones where you went the extra mile, or found something unusual, or made a courthouse discovery that left you shaking your head. Basically, if you've got a good one, let's hear it!

Berntsen is asking for your help in acquiring high quality photographs of monuments from around the country. Detailed requirements are available at www.berntsen.com, but here is a summary:

- 1) A high quality photo taken from directly above the monument. Digital color photos are preferred, but any extraordinary image will be used.
- 2) A few pictures of the monument's surroundings are also needed.
- 3) A history of the monument, its significance, and a description how it was set.
- 4) Directions to the monument, and whether it's on private or public land.
- 5) Latitude and longitude of the marker: a handheld GPS unit provides sufficient accuracy.
- 6) Contact information, including the name of your organization.
- 7) A release form authorizing Berntsen to use the photo in a book on monuments.
- 8) Please submit photos by **December 1, 2005**.

I can't guarantee that we'll use your story or photo, but if we do you'll receive a free copy of the forthcoming book and, of course, credit for your entry.

This is a project that will shine a light on surveying's significant contribution to American history, and honor the monuments that have 'held their post' — for a century or more in some cases — and survived to tell their tale. Submissions should be sent to:

Berntsen International, Inc.

Attn: Rhonda L. Rushing

P.O. Box 8670

Madison WI 53708-8670

or by email to monumentbook@berntsen.com

Generating Solid Models From Topographical Data

TOPOGRAPHICAL DATA ARE CONVERTED INTO FORMS USABLE BY RAPID-PROTOTYPING MACHINES.

Goddard Space Flight Center, Greenbelt, Maryland

A method of generating solid models of terrain involves the conversion of topographical data into a form useable by a rapid-prototyping (RP) machine. The method was developed to enable the use of the RP machine to make solid models of Martian terrain from Mars Orbiter laser-altimeter topographical data. The method is equally applicable to the generation of models of the terrains of other astronomical bodies, including other planets, asteroids, and Earth.

Topographical data describe a terrain in terms of a set of three-dimensional coordinates [e.g., Cartesian (x,y,z) or polar (latitude, longitude, radius) coordinates] of points or nodes on the terrain surface. The input data for the RP machines are required to provide a three-dimensional description, not of a single surface, but of a volume — in this case, a ground volume that underlies the terrain surface. The description is required to be in the form of triangular elements that connect the nodes of all the surfaces and that completely bound the volume, with no open areas, no overlap of triangles, and no extraneous geometric elements. The software used in the present model-generation method was written in IDL — an advanced programming language that affords a number of tools, including subroutines that triangularize surfaces. The software creates a volume from the topographical surface data by adding sides to the edges of the terrain surface and joining the sides with a bottom surface. Each of the sides is triangularized by use of IDL subroutines, and then the software searches for extraneous elements and removes them.

Topographical data are usually presented in a grid corresponding to polar coordinates, so that a model generated from such data is equivalent to a topographical map in Mercator projection. However an RP machine is fully capable of including the curvature of a planetary body in a model that it makes. Therefore, the software also offers a capability to transform the topographical data to a projection onto a surface having a curvature corresponding to that of the surface of the modeled planet.

This work was done by John W Keller of Goddard Space Flight Center. For further information, access the Technical Support Package (TSP) free on-line at www.techbriefs.com/tsp under the Information Sciences category. GSC-14897-1



- iii) Should we have a secure "Members-Only" area?
- iv) Hosting
- c) Surveying Zone Newsletter (Enclosure No. 4 - tabled from last meeting)

- i) Do we want to participate?
- ii) Who will be in charge?
- iii) Website committee?

Vice President Jones suggested waiting until the website is taken care of. He will include it with his follow-up.

- 12) Presidential Citations:

President Muscio said Rick Hudson's Honorary membership should be awarded at the Fall Technical Session, and he would need plaque information. There were no other awards at this time.

- 13) Recess: [15 minutes]. Recess was waived.

- 14) New Business:

- a) New Member Applications - none
- b) Legislative Interim Committees — deferred until discussion on education requirements.
- c) Corner Record Committee (Enclosure No. 11)
- d) Correspondence (Enclosure No. 5-10)
- e) Education Requirements — State Board request for PLSW opinion (Enclosure No. 12)

A lengthy discussion was held concerning education requirements for Surveyor licensing. The State Board has requested that PLSW survey its members for their opinion. Bruce Frederick made a motion to approve the questionnaire as written and send it out to all members. Vice President Jones seconded the motion. There was additional discussion and it was decided that one of the officers will contact the State Board and clarify exactly what question they want asked. Bruce Frederick amended his motion to accept the questionnaire pending notification from the State Board and pending an explanatory cover letter. There was no further discussion and the motion was passed. Secretary/Treasurer Scherbel will send the questionnaire to all members once it is finalized.

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f) Date for next meeting — Fall Technical Session 27-28 October 2005

15) Announcements:

a) The PLSW annual meeting during the WES convention is Thursday 2 February 2006, from 1:00 — 4:00. The format will be roughly the same as this year's.

b) It was decided that the Board of Directors meeting at the Fall Technical Session would be held Thursday immediately following the seminar, and dinner would be provided for the Board of Directors and provided for anyone else off the menu.

16) Adjournment:

The meeting was adjourned at 12:30 pm.



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First Annual Report of the Wyoming State
Board of Registration

The following is the first annual report of the Wyoming Board of Examining Engineers (now the Wyoming Board of Registration for Professional Engineers and Professional Land Surveyors). The report was published in the 1907 - 1908 Annual Report of the State Engineer, Clarence Thomas Johnston (pp. 32 - 35).

Report of Board of Examining Engineers

The Legislature of 1907 made provision for licensing all engineers and surveyors who do surveying or who make plans providing for the use of water. A Board of Examining Engineers was created and members of this Board were appointed by the Governor soon after the Legislature adjourned.

Arrangements were immediately made by the Board for carrying the law into effect. Examinations were conducted on the 20th day of June 1907. Examinations were conducted at nearly every county seat in the State, and up to the present time 134 licenses have been issued. Of these 6 are located in Albany County, 9 in Big Horn County, 12 in Carbon County, 5 in Converse County, 6 in Crook County, 17 in Fremont County, 4 in Johnson County, 19 in Laramie County, 2 in Natrona County, 6 in Sheridan County, 3 in Sweetwater County, 13 in Unita County and 2 in Weston County. There are 22 licensed engineers and surveyors residing beyond the borders of the State. Four of these are located in Nebraska, eight in Colorado, one in Idaho, one in Montana, three in South Dakota, one in Missouri, two in Massachusetts, one in Utah, and one is temporarily located in Australia. More licensed engineers and surveyors are working in the State today than were practicing before the law went into effect.

Each applicant for examination is required to fill out a blank giving his name, address, his place of birth, age, education, and the training and experience he has had in engineering work. These blanks are numbered consecutively so that each person examined has a different number which is to be placed at the head of each sheet of the examination papers. All blanks and papers are filed in the office of the Secretary of the Board, according to their numbers, and are open to inspection at all times. A card index of engineers is also kept. Each card contains the name and address of an engineer or surveyor, and if a licensed engineer, his examination number, the date of examination, number of grades passed, and the number of his license. Another index of licensed engineers and surveyors is kept by counties so that information as to those holding licenses in any particular locality can readily be obtained.

Two licenses are issued to each one passing examinations. One is of small size to that it can be placed in a vest pocket case, which is given with it and can be carried at all times. A duplicate of this license is kept in the secretary's office for reference. It is of the following form:

In addition to this license a second one of large size suitable

Engineer's or Surveyor's License
WYOMING
This is to Certify
That of
State of has complied with the
provisions of Section 28, Chapter 86, Section Laws
of 1907, and that this
LICENSE (..... Grade)
is issued to him in accordance therewith as prescribed
by law, this day of, A.D. 19.....
Board of Examining Engineers.

President.

No.

for framing is also issued.

On November 18th, 1907, a meeting of the Board of Examining Engineers was held in the office of the State Engineer, all members being present. It was decided at this time to hold examinations so far as possible, to suit the convenience of those applying for them. It was also decided to issue the diploma licenses already referred to, and to adopt the following rules as representing the recommendations of the Board as to the work one should be qualified to perform in the several grades for which the license was issued.

Rules State Board of Examining Engineers

A first grade Surveyor's license covers plane surveying only. The holder of such license is authorized to do this class of surveying, to lay out irrigation works for the reclamation of not more than 1,000 acres or to design reservoir where the depth of water to be stored is not greater than ten feet.

A second grade Surveyor's license covers the first grade and includes in addition surveys for rights of way.

The third grade Engineer's license includes the work performed under the first and second grades and in addition hydraulic engineering work such as the measurement of the discharge of streams and ditches and the planning of any hydraulic work, the cost of which does not exceed \$7,500, or of such dimensions as to reclaim 1,000 acres or less.

A fourth grade Engineer's license embraces the work under the first, second, and third grade and includes all other engineering work relative to the utilization or use of water.

A fifth grade Engineer's license indicates that the engineer is authorized to practice in any lower grades and that he has acknowledge of the irrigation law of the State of Wyoming as well as the court decisions interpreting the law.

The law providing for this work is an unqualified success. It has placed irrigation work on a higher plane, it has protected to a certain extent those who are capable of performing good work, and it has in a greater measure protected the public. Before the act went into effect many maps were prepared which were not based on surveys. They were sworn to by the applicants for permits and there was nothing in the law or in practice that would enable one to distinguish between a person without qualifications and an engineer who had made a life study of this special work. The result was that many maps filed in the State Engineer's office on which permits were based do not represent conditions on the ground. This was generally discovered when the matter was taken up under the Desert Land Act. Sometimes the irrigation works would be shown on the maps in a different township from the lands proposed to be irrigated. Maps made in this way were always defective in

(Continued on next page)

forty or fifty miles southwest of the Fort when I received orders to bring my party to Fort Fetterman where the other two parties working under the same firm of Downey and Grant would also meet for the purpose of preparing to survey the Powder River country in the northern part of the territory. I arrived two or three days in advance and spent the time in camp on the Platte River writing up my records. It was the first days in July and the burning sun parched the earth till most vegetation had vanished. It was very dusty and hot winds blew making the scene appear gloomy and lonesome. The only thing that sent a feeling of security into the heart were the graceful waves of our country's flag over the Fort. Sad news came over the single wire to the military office stating that President Garfield was shot and seriously wounded. It seemed like a message from a foreign land, we felt ourselves so far away.

When we were all assembled we numbered about twenty-five men. Mr. Downey came for the purpose of giving orders and he announced that he would treat the men to cheer them for the remaining task of the season. All collected at the Sutler's Store on the government reservation and the intoxicating beer was lavishly furnished to the thirsty crowd. Many of the men drank with unstinted extravagance. They began to feel funny and reeled about. As was my custom I did not drink. One husky fellow who had charge of the mail bag thinking it would be safe in my hands, should trouble occur, turned it over to me. I found later the only letter it contained was for me. For a few moments there was a lull like the hush before a storm. But the poison liquor was getting in its work and stealing the controlling power from the men's minds. Several soldiers were mingling with the boys and getting as tipsy as they. The hind part of an old wagon was close by and our men would take a drunken soldier and place him thereon then flop it over to throw the soldiers on the ground. This was done several times. Some of the soldiers showed their displeasure and resented this act. And as feelings of rancor rose to a higher pitch the affair burst into fist fights and knock downs and our men were getting the best of the soldiers and actually trampling them with their heavy shoes. All at once a group of soldiers hurriedly ran and shouted: "Get your guns!" "Get you guns!" Quick as a flash all our men who realized the situation jumped into a wagon one of our teamsters previously brought up for hauling supplies to camp. Some were too drunk and could not climb in over the high side boards. They were left behind. The men were piled in the wagon bed in promiscuous order and the driver put the whip to the mules and started in a gallop to our camp. The soldiers equipped with guns rushed down the gravelly slope and shouted "halt" three times, but no one heeded the command and as the wagon sped on through the dust. Then poured forth a volley of shots at the wagon. I was glad I had quickly decided not to get into the wagon for I thought it unsafe with such a drunken crew. So I advised my flagman to run with me to a creek emptying into the river and sneak down its bed toward camp. When the bullets were hissing from the guns I imagined I felt them penetrating my back as I ran with a speed I never reached before or since. The bullet battered wagon landed in camp and to the surprise of all no one was killed. Only one man was shot in the leg he had hanging out of the wagon. The few who were too drunk to get into the wagon were placed in the guard house at the Fort, but were released the next morning. I well remember how they looked as they strolled into camp with that sheepish half-hidden guilt and shame depicted upon their faces.

A week or two before I arrived at Fetterman, a trusty surveyor by the name of Mccarty ran a standard line as far as the Fort. One day he went bathing in the river, and although a good swimmer, was hurled under by the current and was drowned. The contractor was puzzled what to do. He entrusted the job to me to run the standard to the northern part of the territory and then run a parallel west forty-eight miles, north of Pumpkin Buttes. He gave me seven men and two horses for this task. It was quite a responsibility for a young surveyor, but after some trying experiences the work was satisfactorily completed.

ANOTHER UNPLEASANT EXPERIENCE

I remember one time on the last stretch westward the scout and cook went so far ahead seeking a suitable camp that it was impossible for us to catch up with our work. We could not find camp and when darkness fell upon the lonely land we dared not leave our line for fear of getting lost. Our only alternative was to stay right where we were with scant clothing; no tent, no food, and a drizzling rain was falling. We got chilly. The damp green sage brush refused to burn. We would walk back and forth to heat our blood. Getting tired of this we would lie down together spoon fashion. Some tried to sing, but the effort was weak. Others swore if they ever got to their cozy home back east they never would be caught on a survey. So the night wore away. As the sun peeped over the eastern horizon, we had scarcely started on our line, when in the distance ahead we spied a horseman speeding toward us. It was our scout, and when he approached us he shook a lot of wild meat and bread from a gunny sack on the grass and we fell to like a pack of starved dogs.

CONCLUDING WORDS OF YOUR HAPPY CONDITION

Allow me to say to the good people of Douglas and vicinity that I most earnestly congratulate you for the energy and thrift you have displayed in developing this part of lovely Wyoming for the abode of comfortable and happy homes. Your state is unsurpassed for the beauty and grandeur of natural scenery. You have facilities and advantages that many another state would be proud to possess a breath of your invigorating air is a spur to genuine health. Your oil and mineral and agriculture give employment to thousands and build flourishing cities throbbing with the pulse of industry. It was certainly a revelation to me to behold your fields of grain and orchards yielding apples that satisfy the most critical palate. Twice have I traversed your state in the last three weeks and I found your people courteous, accommodating, and inspiring. Your enthusiasm and unbinding faith will overcome all difficulties and your irrigating projects will finally prompt every acre of your broad domain to yield a paying abundance for the efforts of the toiling husbandman.

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Old Surveyor Visits Wyoming (1937)

On the way with my family on an auto trip from Kansas City, Missouri, to Port Angeles, Washington, we had the pleasure of passing through the beautiful town of Douglas, Wyoming. We stopped for half an hour and when I entered a restaurant to get some water and ice I mentioned to a gentleman at the counter that I surveyed through this country in the early territorial days. He immediately became interested and insisted I should go with him to the surveyor's office in the city. I consented and was introduced to Mr. L.C. Bishop who recently had done some very efficient work on the site of Old Fort Fetterman. After relating some of my experiences and hair-breadth escape that took place at the Fort

(Continued from Page 10)

was surveyed by means of the solar compass. Every morning the latitude and declination of the sun must be set off on the proper arc of the instrument. There is also a compass needle on the instrument to be used in case of emergency. All these three vary from day to day and the locality in which you work.

It is impossible to keep the latitude and declination mathematically exact every minute of the day because these constantly change as time passes and as you move north or south with your surveying work. So you see there is a great chance of some inaccuracy in the lines you locate. Then again when the sky is clouded you are compelled to run by the magnetic needle. Now if you are working in the mountains where the needle is influenced by minerals it is impossible to run a perfect line. In the old days the surveyor did not stop when the sun did not shine. He had to work on even when the needle did not tell the truth. There was no telescope on the solar compass which the surveyor used in 1881. In real accurate work there should be a plumb-bob suspended from the center of the instrument and dropped down over the point about which the tripod is set. The surveyor in the wilderness was not asked to do this.

Another thing, in sectionizing the surveyor was advised to run one mile north from the south boundary of a Township and then run east one mile to the east boundary of the Township. You will miss the one mile corner there very likely. Then the ½ mile temporary corner on your east and west line must be corrected. Then you run another mile north and only run ½ mile east and set your ½ mile corner according to the correction made when you ran the first mile east. On the second mile east there was no chaining clear through. The other east lines in the tier of sections had the ½ mile corner set according to the correction needed in the first line running east. Such were the orders given to the surveyor. You can see by this method there was another opportunity of having some errors creep in. It was often hard for the cornerman to find stones suitable for corners. No wagon was used to haul stones. The surveyor received \$80.00 per month. The cornerman, the two chainmen, & flagman so far as I remember, each received \$40.00 per month. Board was furnished what we needed besides the wild meat the boys secured with their guns. The chainmen indicated the spot by any means at hand and often waited till the cornerman came to them.

Very respectfully,
G.A. Theilmann

before he was born, he kindly offered to take me to the old military post. But my folks were waiting and eager to go on so I had to forego that pleasure. Then he urged me to write an article believing it would please the people of this locality. I was overcome with a feeling of great surprise as we rolled over the smooth highway and beheld the wonderful changes that have taken place since I worked as a surveyor in this part of your state over a half century ago in the year 1881. Fifty-six years ago I never dreamed that such an unusual transformation from a barren wilderness to the comforts and conveniences of modern civilization could be realized. It is true at that time there was a sort of road from the Union Pacific Railroad to Fort Fetterman where a company of soldiers was stationed for protection against the Indians. The surrounding country far and wide was in its primitive state over which roamed various kinds of wild animals. In those days it seemed to me that the surveyor was the only occupant of the country for it was rare that we ever met another human being. Our home was where we pitched our tent rolled up in our blankets and slept under the stars. The wonderful howl of the coyote was the music that soothes us to a sound sleep. We would never wake until the cook roused us up to a hurried breakfast of antelope meat boiled soft in a dutch oven. Each individual had his lunch cloth in which he wrapped a big piece of elk or antelope meat placed between two generous slices of camp baked bread, tied to the back of the belt for the midday repast, then adjusted our solar compass for the day, shouldered the tripod, and off for a tramp of twenty miles where no man's foot had ever trod.

The lone hunter, the casual observer, or even the explorer picks his way and wanders where his steps insure safety and takes time to listen and look. Not so with the government land surveyor. He cannot choose his path. He gazes ahead and no matter whether he sees the prickly cactus plain the dense thicket, the dangerous mountain slope, or the swollen stream he must go on where his line leads him. He has his days work. No fooling. If he is sectionizing a six square mile township he is expected to complete a tier of six sections. To do this he and his party must hunt the starting corner on the south boundary which often requires several miles of tramping. Then the work begins and when completed there comes the weary trudge over untrodden ground to the nightly camp. The exact direction is unknown, but you must do your best for you are tired and hungry and have several miles to go with no convenient path for your sore feet and aching limbs.

Every two or three days camp is moved by the teamsters to the center of another township, as nearly as possible, where water and wood may be secured. The moving is often done when the surveying party is out at work. Then comes the problem of finding camp. It is now farther away and must be found when the day's work is done. Sometimes after diligent search all efforts are futile. Then arises the necessity of staying out with no food, shelter, water, or blankets. This occurred a number of times with my party.

It would be interesting to relate in detail the experiences of such times in keeping the men encouraged to stick to the job. But I fear my article would be stretched too far. Yet I feel that the people who were born since we surveyed this part of Uncle Sam's domain would be pleased in hearing of the hardships that accompany the efforts to survey an unorganized and unsettled country.

AN EXCITING EPISODE

I might relate what happened once because it took place a little north of your city at Old Fort Fetterman. I was running a line

some degree. The streams were seldom properly located, the ditches not accurately represented and the area of the land to be irrigated generally over-estimated and not located where it really lies. When the entryman attempted to submit final proof on his desert claim, he experienced all kinds of trouble, yet he could not hold anyone he had employed responsible therefor. It cost him much more in the long run than had he employed a competent surveyor to begin with. Since the passage of the act not a single case of this kind has come to the attention of the State Engineer. This reform alone would justify the passage of the law.

During the past few years great interest has been taken in large irrigation projects. A surveyor who desired to represent a project to the best advantage to investors was always tempted to show more lands covered by the proposed ditch than could actually be reclaimed. He was not held responsible by the State for the accuracy of surveys, and in more than one case misrepresentation necessarily resulted in loss to the investor and such a practice must always be detrimental to the community which depends upon the irrigation works constructed. With engineers working under a license which can be revoked wherever dishonest practice is shown to exist, trouble of this kind will either be eliminated altogether, or only occur at very rare intervals. This law has received unanimous approval from all who have studied it, because it is brief and leads to the result that should always be sought. There is no more reason why an important profession such as the engineer practices should not be recognized by the law or why every member of that profession should not be held responsible for his work when such work is always of some concern to the public. There is a tendency on the part of some who would prefer to save a dollar now at the risk of losing a thousand dollars within a few years to oppose any measure which would tend to give assurance to the employer or stability to a profession of this kind. However, this feeling is rapidly disappearing and every State will ultimately follow the lead of Idaho and Wyoming in this important matter. The State of Louisiana has recently enacted a law which covers the entire engineering profession and which is in some respects exacting in its requirements.

With the growth of the State the importance of the work of the engineer must be more fully recognized and it is extremely fortunate that our law-makers provided a statute of this kind at the time when most of the important development is still before us.

Board of Examining Engineers.
William Newbrough, President
C.E. Hayden
Clarence T. Johnston, Secretary

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Things That Make You Go HMMMMMMMMMMMM—

Abraham Lincoln was elected to Congress in 1846.

John F. Kennedy was elected to Congress in 1946.

Abraham Lincoln was elected President in 1860.

John F. Kennedy was elected President in 1960.

Both were particularly concerned with civil rights.

Both wives lost a child while living in the White House.

Both Presidents were shot on a Friday.

Both Presidents were shot in the head.

Now it gets really weird.

Lincoln's secretary was named Kennedy.

Kennedy's Secretary was named Lincoln.

Both were assassinated by Southerners.

Both were succeeded by Southerners named Johnson.

Andrew Johnson, who succeeded Lincoln, was born in 1808

Lyndon Johnson, who succeeded Kennedy, was born in 1908.

John Wilkes Booth, who assassinated Lincoln, was born in 1839.

Lee Harvey Oswald, who assassinated Kennedy was born in 1939.

Both assassins were known by their three names.

Both names are composed of fifteen letters.

Both Booth and Oswald were assassinated before their trials.

Now hang on to your seat.

Lincoln was shot at the theater named "Ford."

Kennedy was shot in a car called "Lincoln" made by "Ford."

And here's the "kicker":

A week before Lincoln was shot, he was in Monroe, Maryland.

A week before Kennedy was shot, he was with Marilyn Monroe.

AND

Lincoln was shot in a theater and the assassin ran to a warehouse.

Kennedy was shot from a warehouse and the assassin ran to a theater.

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Correspondence with former State Engineer L. C. bishop

Herbert W. Stoughton, Ph.D.
Geodetic Engineer
2821 Carey Avenue
Cheyenne, Wyoming 82001
1 May2005

Mr. Floyd A. Bishop, P.E., P.L.S.
2848 Deming Boulevard
Cheyenne, Wyoming 82201

Dear Mr. Bishop:

Enclosed are transcriptions of two letters to Mr. L.C. Bishop, whom I believe was your father, from Mr. G.A. Theilmann, and a paper Mr. Bishop requested for publication in the Douglas newspaper.

These documents were found in the records of the U.S.D.I., Bureau of Land Management. In the second letter to Mr. Bishop, it is stated (page 3) "This letter is to you privately and for no public use.". Because of this comment, I would like to know if you have any objection of publication of these three documents?

Also, I would like to know if you have any knowledge as to the publication of the "paper" written by Mr. Theilmann in the Douglas paper or elsewhere?

These documents came to my attention because I am attempting to compile documentation of the surveys of the Public Domain during the contract period, which ended on 30 June 1910.

I would appreciate a written affirmation or restriction to this request.

Thank you.

Sincerely,
Herbert W. Stoughton, Ph.D., P.E., P.L.S., C.P.
Geodetic Engineer

Floyd A. Bishop
2848 Deming Blvd.
Cheyenne, Wyoming
June 2, 2005
Mr. Herbert W. Stoughton
Geodetic Engineer
2821 Carey Ave.
Cheyenne, WY. 82001
Dear Herb:

I have received your letter of May 31,2005, and the accompanying copies of letters involving my father, L. C. Bishop. I do remember, albeit somewhat dimly, my father having received these letters, and I do believe the one "Paper" was published in the Douglas Budget. I am sure you could check the records of the Budget, which is still an active newspaper in Douglas, and confirm this fact.

So far as the statement that the one letter is private and not for public use, I think Mr. Theilmann was only trying not to publicly smudge the reputations of his contemporaries, and since all of these old surveyors are now gone, I see no reason not to go ahead and publish it. It does contain some interesting information and statements that may shed a little light on the shortcomings of some of the early public land surveys. I would be interested in knowing where you intend to publish this information. I am not at all sure as to what authority I might have to either grant or deny your request, but as far as I am concerned, I have no objection to its publication.

Sincerely,
Floyd A. Bishop

Kansas City, Mo.
4420 Forest Ave.
Sept. 21, 1937
Mr. L.C. Bishop,
Douglas, Wyoming
Dear Mr. Bishop

We have just returned from our trip to the Pacific coast. You remember I called at your office and in the course of conversation you requested me to write an article concerning my experience as a surveyor in your neighborhood 56 years ago. I have written such an article which I enclose. I have the rheumatism in my right arm and this makes my writing not as good as it should be. Use the article as you like. Read it through and if you think your community would enjoy it, you may publish it entire or any part of same. Use your judgment concerning the matter. If you publish the article I would be pleased to have you send me a copy of the paper in which it is printed.

We had a very fine trip and no accident. Came back through Salt Lake City and Laramie, Wyo. I found that both Downey & Grant passed from earth long ago. I wish you success and health and happiness.

Very respectfully
G.A. Theilmann
4420 Forest Ave.
Kansas City, Missouri

Kansas City, Mo.
4420 Forest Ave.
Sept. 26, 1937
Mr. L.C. Bishop,
Douglas, Wyoming
Dear Mr. Bishop:

Your kind letter is at hand and I am pleased to know that you have accepted my article and have made arrangement to have it published. You certainly must know much about your surroundings as you first opened your eyes not far from where you now live. Your letter was interesting to me since you wrote about the surveys you have come in contact with. You know some of the land surveys in Wyoming and other places throughout the west were done by people who were not trained in the profession. This caused some careless work to be done.

You understand that 50 or 60 years ago the land in Wyoming

(Continued on Page 12)



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