

Hixon Mfg. & Supply Co.

For a Surveyor, By a Surveyor.

NEW!! Order Online: www.HixonMfg.com



- GPS
- Levels
- Laser Distance Meters
- Paint and Flagging
- Measuring Wheels
- Compasses
- Transits
- Total Stations
- Supplies

Free* UPS ground shipping to Wyoming for the rest of 2001!

One stop for all of your field needs!!

Garmin-SECO-Leica-Pentax-Rolatape-Lufkin-Keson-Estwing-Crain-CST-And More



Hixon Mfg. & Supply Co.

1001 Smithfield Drive, Fort Collins, Colorado 80524

Phone: (800) 762-5252



*Free shipping offer excludes wood, rebar and 50lb boxes of nails.

Lines & Points

P.O. Box 904
Casper, WY 82602

JOEL T EBNER
3224 WATSABAUGH DRIVE
GILLETTE, WY 82718

PRESORTED
STANDARD
U.S. POSTAGE
PAID
CASPER, WY
PERMIT NO. 208

THE EQUALITY STATE SURVEYOR



LINES & POINTS



PROFESSIONAL LAND SURVEYORS OF WYOMING

AFFILIATE — AMERICAN CONGRESS ON SURVEYING AND MAPPING

MEMBER — WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

DON A. DAVIS, VICE-PRESIDENT

S. DENNIS DAWSON, PRESIDENT

HERBERT W. STOUGHTON, SEC.-TREAS.

VOLUME 14, NO. 1

APRIL 2002



P.L.S.W.



Sokkia Survey-Grade GPS System

A flexible system designed for post-process and real-time (RTK) surveying applications

Real-Time Promotion!

Now, you can get a full dual-frequency RTK system at single-frequency receiver prices!
Sokkia is offering Radian RTK systems, complete with radio kit and

RTK controller, for only **\$25,995**

Monthly payments as low as **\$766**
(on approved credit)*

New SK-600 antenna with
"Pinwheel" technology - less
than 1mm phase center offset
for super-accurate positioning.



Sokkia Radian RTK Package Includes:

Two Radian receivers, upgraded to dual-frequency and RTK options
Base Radio Kit
Rover Radio Kit
Base Radio Power Kit
RTK Controller
(*SDR33 RTK 2MB, or TDS FS/3 with Survey Pro GPS)

*Price based upon 10% down, 36 month financing at current market rate, subject to change. Taxes not included. Financing available through Sokkia Credit Corporation. Other options may apply. Offer valid August 1, 2001 through December 31, 2001. This offer not valid in combination with any other promotion, some restrictions apply, offer subject to change at any time. Offer valid in the United States only.

GPS technology can improve the way your organization conducts business, but your job needs may vary. That's why Sokkia's Radian and Radian IS survey GPS products are now available in three firmware options: single frequency L1, dual frequency L1/L2, and dual frequency L1/L2 with RTK capability. This newly expanded product line offers "scalable" solutions, designed to meet the needs of your current scope of work, while offering you the flexibility to expand in the future.

SOKKIA

Sokkia Measuring Systems - Denver
930 West Byers Place, Denver, CO 80223
Phone: 800-729-1729 or 303-698-4878
Fax: 303-698-4899

©SOKKIA 2001 SOKKIA is a trademark of Sokkia Co. Ltd. SDR, Radian and SK600 are trademarks of Point Inc., a Sokkia Co. Ltd/NovAtel company. All other brand names and trademarks are property of their respective owners.

☐ APPROVED BY BOD ☐ REJECTED BY BOD SEC./TREAS. _____ DATE _____

2002 PLSW MEMBERSHIP APPLICATION PROFESSIONAL LAND SURVEYORS OF WYOMING

AFFILIATE — AMERICAN CONGRESS ON SURVEYING AND MAPPING
MEMBER — WESTERN FEDERATION OF PROFESSIONAL SURVEYORS



NAME _____ DATE _____

(Please indicate preferred mailing address)

WYOMING REG. NO. ☐ PLS _____

HOME ADDRESS: ☐

☐ PE/LS _____

STREET OR BOX: _____

CITY/STATE/ZIP: _____

TELEPHONE: _____

BUSINESS ADDRESS: ☐

STREET OR BOX: _____

CITY/STATE/ZIP: _____

TELEPHONE _____ FAX _____ E-MAIL _____

EMPLOYER: _____ YOUR TITLE: _____

States other than Wyoming in which you are registered: _____

Additional information or comments (optional): _____

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

☐ **MEMBER**, ANNUAL DUES \$75 (Persons duly registered, PLS or PE&PLS in Wyoming.)

AFFILIATE MEMBERSHIPS

☐ **Associate Member**, annual dues \$50. (Persons employed under the direction of a PLS and working toward PLS registration in Wyoming.)

☐ **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 Herbert W. Stoughton, Sec./Treas., 2821 Carey Ave., Cheyenne, Wyoming 82001.

Professional Land Surveyors of Wyoming

2002 CHAPTER OFFICERS

CENTRAL CHAPTER

Director: Gary L. Hatle
P.O. Box 1072
Riverton, Wyoming 82501
President: Bruce L. Hughes
130 Valley Circle
Riverton, Wyoming 82501
Vice President: Randall S. Stelzner
13 Sarah Drive
Riverton, Wyoming 82501
Sec./Treas.: Thomas A. Johnson
3265 Colter Drive
Riverton, Wyoming 82501

NORTHEAST CHAPTER

Director: Troy T. Fields
7287 Redrock Drive
Gillette, Wyoming 82716
President: Warren A. Graf
418 Prarie View Drive
Gillette, Wyoming 82716
Vice President: Joel T. Ebner
3224 Wasabaugh Drive
Gillette, Wyoming 82718
Sec./Treas.: George J. Dale
1443 Palomino Road
Gillette, Wyoming 82716

NORTHWEST CHAPTER

Director: Paul A. Blough
P.O. Box 1748
Cody, Wyoming 82414
President: Richard T. Muscio
35 Hickory Club Drive
Cody, Wyoming 82414
Vice-President: J. Harvey Copeland
P.O. Box 883
Cody, Wyoming 82414
Sec./Treas.: Rick L. Hudson
P.O. Box 784
Thermopolis, Wyo. 82443

SOUTH CENTRAL CHAPTER

Director: William R. Fehringer
355 North Lincoln
Casper, Wyoming 82601
President: Alan B. Cormier
157 Indian Painbrush
Casper, Wyoming 82604
Vice President: Charles K. Wolz
3240 Green Meadows Drive
Casper, Wyoming 82604
Sec./Treas.: Michael W. Blum
P.O. Box 76

SOUTHEAST CHAPTER

Director: Roger H. Krum
2308 Champion Drive
Cheyenne, Wyoming 82009
President: Jeffrey A. Genzel
5801 Osage Avenue
Cheyenne, Wyoming 82201
Vice President: Peter J. Hutchison
209 Lakeshore Drive
Cheyenne, Wyoming 82009
Sec./Treas.: John David Sayers
6818 Windson Boulevard
Cheyenne, Wyoming 82009

SOUTHWEST CHAPTER

Director: V A C A N T
President: Donald M. Schraam
422 Lewis Street
Rock Springs, Wyoming 82901
Vice President: Kent E. Felderman
1321 Redrock Drive
Rock Springs, Wyo. 82901
Sec./Treas.: Kenneth G. Magrath
1010 South Dakota Street
Green River, Wyo. 82935

UPPER PLATTE CHAPTER

Director: Lynn A. Forbes
P.O. Box 136
Sinclair, Wyoming 82334
President: Martin A. Pedersen
P.O. Box 1104
Rawlins, Wyoming 82301
Vice President: V A C A N T
Sec./Treas.: Anita M. Morris
P.O. Box 204
Encampment, Wyo. 82325

WEST CHAPTER

Director: Paul N. Scherbel
P.O. Box 4296
Big Piney, Wyoming 83113
President: Scott R. Pierson
P.O. Box 1143
Jackson, Wyoming 83001
Vice President: Skylar V. Wilson
P.O. Box 938
Pinedale, Wyoming 82941
Sec./Treas. Becky E. J. Braman
P.O. Box 7010
Jackson, Wyoming 83002

PLSW Key Rings are for sale.

Send \$5 to:
P.O. Box 904
Casper, WY 82602

EDITORIAL POTPOURRI

O NEW MEMBERS OF PLSW - At the December meeting of the Board of Directors, the following new members were approved.

Paul Smith	Member	Arvada, CO
Kirk Adkins	Associate Member	Jackson, WY
David Holmes	Associate Member	Cheyenne, WY
Mark Lippincott	Associate Member	Moran, WY
David Proctor	Associate Member	Jackson, WY
David Meserve	Student Member	Gillette, WY

Congratulations and welcome

O BOARD OF DIRECTORS MEETINGS - The board meetings for the balance of 2002 are as follow:

11 MAY 02 - Casper - 10:00 a.m.
24 AUG 02 - Telephone Conference Call - TBA
15 NOV 02 - Casper - 12:30 p.m. - Parkway Plaza

Contact your director for time and place. All are welcome.

O Lines & Points FAX - Our fax numbers are 307-235-5604 or 307-235-8184.

O Lines & Points E-MAIL - Contact dond@wlcwyo.com. or johnhh@trib.com.

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

Secretary Stoughton Resigns

Professional Land Surveyors of Wyoming
Mr. S. Dennis Dawson, President
4005 Snyder Avenue
Cheyenne, Wyoming 82001

Dear Dennis:

This letter is to officially inform you that my current term as PLSW Secretary/Treasurer will be my last term in office. Please immediately inform the PLSW Nominations Committee in order that they can initiate a search for suitable candidates.

If you have any questions, please contact Catherine D. Stoughton.

Sincerely,
Herbert W. Stoughton,
PLSW Secretary/Treasurer

Lines and Points is published by the Professional Land Surveyors of Wyoming. Lines and Points is not copyrighted and permission is hereby granted to reprint articles with appropriate credit. The Professional Land Surveyors of Wyoming assumes no responsibility for statements made or opinions expressed in this publication.

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	\$300	\$80
Half page	\$175	\$50
Quarter page	\$100	\$30
Business card	\$ 30	\$10
Classified	40¢ per word/issue	
Employment	Free	

Special Rates for PLSW Chapters

Deadline for next issue — 15 JUNE 2002

TABLE OF CONTENTS

ARTICLE	PAGE
EDITORIAL POTPOURRI.....	3
PRESIDENT'S MESSAGE	4
2002 ANNUAL MEETING	5
BOD MEETING	8
NAVIGABLE STREAMS IN WYOMING ..	9
CORNER PERPETUATION	10
WESFED DIRECTORS MEETING	16
LOREN BISHOP	19
NCEES MODEL LAW	21
IN MEMORIAM	22
SCHERBEL AWARD	25
SOUTH DAKOTA COMPANY MAP PROJECT	25
CHAPTER OFFICERS	26
MEMBERSHIP APPLICATION	27

PRESIDENT'S MESSAGE

In preparation to write this address, I reviewed my address from last year. My question was what had I said, and what have I done. More over what has been accomplished in and by the PLSW?

When I look back at my last address, I find that I was looking to the future of our profession. What have we accomplished? Where are we in the process of growing our organization? What do we need to do next?

What have we accomplished? I'm seeing signs that we are adding to our membership. We are doing well financially, considering our size. We continue to have winners in the national map and plat contests. We are having state meetings with exceedingly good attendance. In short the PLSW looks like an organization on the move, and improving.

Where are we in the process of growing our organization? There are several things going on. The Central chapter is in the process of splitting into the Central chapter and the West Chapter. On the surface this has been talked about as a split of convenience. In reality this split is a symptom of a growing organization. It makes it easier for the chapter members to meet and to be involved.

We have made a start on the coordinate data base project. We have started a pilot project in Laramie County. The project has a temporary setback because the Laramie County GIS coordinator suffered a heart attack. The coordinator was going to develop the database for us for use in Laramie County as a pilot project, and then it was anticipated that the project would be expanded state wide.

We approached the Wyoming Highway Department to house the data base. WYDOT turned the opportunity down because they did not feel that the operation of a database of this type was under their charter.

However, that may all be a moot point anyway. The Wyoming Administration and Information Agency has prepared a budget

AERO-METRIC

PHOTOGRAMMETRIC & G.I.S. SERVICES

AERIAL PHOTOGRAPHY • PRECISION DIGITAL MAPPING
DIGITAL ORTHOPHOTOGRAPHY



AERO-METRIC, INCORPORATED
4708 SOUTH COLLEGE AVENUE
FORT COLLINS, COLORADO 80525
TEL: (970) 226-2883 FAX: (970) 226-2965
www.aerometric.com
e-mail aerometric@amecolorado.com



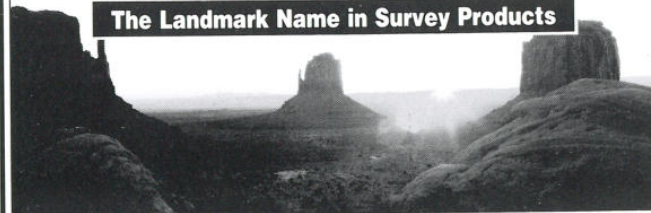
Drafting and Engineering Supplies
Complete Reproduction Service

145 North Durbin
Casper, Wyoming 82602

P.O. Box 1276
Phone 265-2990

SURV-KAP

The Landmark Name in Survey Products



Same Day Shipping Available!
Factory Direct Prices! • Individual Attention!
Small & Custom Orders Welcome!
Guaranteed Satisfaction!

- Markers
- Caps
- Stakes
- Monuments
- Accessories

FREE
CATALOG & PRICE LIST

- Aluminum
- Brass
- Stainless Steel
- CARSONITE
- PERMAMARK

1-800-445-5320 FAX: 520-792-2030

P.O. Box 27367 / Tucson AZ 85726
www.surv-kap.com / survkap@mindspring.com

request to establish the office of a GIS program manager. The Governor has approved the budget request. The legislative arm has recommended denial of the request. I regard this as one of those steps that will advance technology in the future. If you have a contact in the legislature you may want to encourage him or her to support that program's budget. If you need additional information, I would be glad to supply it to you.

I'm seeing signs that people from around the country have discovered that Wyoming is low in living cost and population. We are seeing a lot of people moving to the Cheyenne area because of the quality way of life. In some ways this is disturbing to me, but in some ways it is encouraging to me. If we have increasing population, we are also likely to have a growing surveyor's organization. The trick is to make sure that the growth of the general population, as well as the organization, is healthy. We as surveyors have a lot to do with that quality growth.

What do we need to do next? I believe that we as an organization and as individuals need to be active in areas that are experiencing growth. I mean that we would be wise to serve on panels and boards when ever possible to influence growth in a positive and healthy manner. It's good for our communities and it's good for our business. I believe that we should be supporting the Governor in his pursuance of a state funded GIS program manager. I believe that we as surveyors should be mentoring younger surveyors to pick up where we leave off. I believe that we should be on the forefront of technology, and to be the first in our profession to test and approve new equipment and procedures. I believe that we should be excited about our profession.

We have the good fortune to have lived through an age where the qualifications for a surveyor was whether he could stand to be out in any kind of weather, to the place where the surveyor must be knowledgeable in math, computers, aerial photography, laser principles, geodetic surveying and principles and etc.

Surveyor Scherbel, Ltd. awarded Friends of Mathematics Award

by Kimberly Harris

On October 5, 2001, Surveyor Scherbel, Ltd. was awarded the Friends of Mathematics Education Award from The Wyoming Council of Teachers of Mathematics. The award was presented to



Paul N. Scherbel, founder of Surveyor Scherbel, Ltd., by Richard Pieper.

The surveying company is family owned and operated, and has been in business for 50 years, with offices located in Big Piney, Afton, and Jackson, Wyoming. During this time, Surveyor Scherbel, Ltd. has shown an interest in and been an advocate for the youth attending Wyoming schools through the business' community involvement.

The inscription on the award reads, "For outstanding and continued support of mathematics education of Wyoming students. Your enthusiasm and caring for our youth is appreciated and an inspiration to others."

Regarding the honor of being presented this award, Professional Land Surveyor, Paul N. Scherbel, stated, "Our group has been most supportive of mathematical endeavors, having been early involved in the Trig-Star competition at three high schools, an active supporter of Math-Counts, and have encouraged many of our mathematically inclined student workers with scholarships and financial help for further learning. Fundamental to much of the progress in the world is mathematics and we will continue to support efforts to this end."

PLSW Paraphernalia

Lapel Pins \$5.00
Key Rings \$5.00

South Central Chapter

P.O. Box 904
Casper, WY 82601
Email: mblum@wlcwyo.com

S.D. company gets \$1 million mapping deal for aerial photos

CHEYENNE (AP) — A Rapid City, S.D.-based mapping company has been awarded \$1 million contract to take aerial photographs of Wyoming for the state and federal government.

Horizons, Inc. plans to take 14,400. infrared, color photos of the entire state, Gov. Jim Geringer announced Friday.

The U.S. Geological Survey awarded the contract and helped the state and federal government fund the project with a matching grant.

The photography will help government manage public land, water, wildlife, energy development and mining regulation, officials said. The photography is also expected to provide a layout of infrastructure, roads and trails, according to Geringer.

"The needs of state agencies, local governments, industry, and the public in general for spatial data grow daily," Geringer said.

The state intends to make the data available publicly over the Internet.

Since 1989, Horizons has flown over 65 percent of the United States for the Geological Survey's National Aerial Photography Program.

Perry donates equipment to Metropolitan State College surveying program

Dr. Herbert W. Stoughton, Head of the Surveying and Mapping Program at Metropolitan State College of Denver announced receipt of the donation of surveying equipment from Mr. Larry T. Perry, P.L.S., Terrestrial Surveying and Mapping; Cheyenne, Wyoming. The items included:

1. 2.4 meter telescoping to 4.2 meter Philadelphia metric rod [Cram Enterprises; model 92003].
2. 30 meter steel tape [Lufkin; Pioneer Tape No. 05100M, Nubian blade].
3. Philadelphia wood level rod, 5 inch round target [Chicago Steel Tape; No. 08-400].
4. 15 meter closed reel steel tape, graduated to millimeters [NS].
5. Two, 20 meter fiber glass, closed reel tapes [Chicago Steel Tape; Pro-Series].
6. 5 meter pocket tape [Chicago Steel Tape; Pro-Series No. 78-BOSOM].
7. Sokkia astronomic ephemerides.
8. Six project field books.
9. One dozen rolls of yellow flagging.
10. Six Sokkia field survey books [Sokkia; No. 8152-60].

Recruit a New Member!

Use all your
senses to
control all your
sensors.



Survey with ESP: Extra-Sensory Productivity.

Introducing two of the newest tools in the Trimble Toolbox: The TSCe™ Controller, and our new Windows CE-based Trimble Survey Controller™ Software. Together, they form a powerful multi-tasking system that uses sight, sound, and touch to speed you through your workday.

The TSCe extends our popular Trimble Survey Controller software to an advanced new platform. To select a function or change displays just tap its sunlight-viewable touch screen. With Trimble Survey Controller software you can load your DTM into the controller as a Grid or TIN file. Then get cut and fill values in real-time by tapping on the screen. Background maps can also be loaded to give you a detailed site reference as you survey, and audible voice cues alert you to important messages as they arise.

Best of all, the TSCe seamlessly switches between Trimble's GPS and Total Station systems, including full support for robotic operation. It even works with instruments from other manufacturers. So get down to your Trimble dealer and see just how "sensible" a controller can be!



TSCe AND SURVEY CONTROLLER SOFTWARE

- **Sight**
Survey in real time against a background map and see cut and fill values against your DTM.
- **Sound**
Voice prompts alert you to important messages as they arise.
- **Touch**
Select and review any point at a touch of the map-centric graphic display.
- **Brains**
Windows CE operating system with true multi-tasking capability.



WWW.TRIMBLE.COM

TRIMBLE ENGINEERING AND CONSTRUCTION DIVISION 1.800.538.7800 U.S. 937.233.8921 FAX: 937.233.9441

DRAFT Professional Land Surveyors of Wyoming, Inc. 2002 Annual Meeting Minutes

1. The Annual Meeting of the Professional Land Surveyors of Wyoming, Inc.

- a. Location: Sheridan; Holiday Inn.
- b. Date & Time: Thursday, 7 February 2002, at 1:10 p.m., M.S.T.
- c. Presiding Officer: Mr. S. Dennis Dawson, P.L.S., President

2. Agenda: The final agenda to the official minutes [Appendix A].

3. Introductions:
a. President Dawson introduced the 2001-2002 PLSW officers.

b. President Dawson introduced PLSW Honorary Members Wesley W. Reed and Paul N. Scherbel.

4. In Memoriam:
a. President Dawson asked for a moment of silence in memory of Raymond E. Connin (former PLSW member); Thomas E. Perrott (DMA Geodetic Survey Squadron geodesist); Glen L. Roberts (Wyoming PE/PLS, head of WYDOT R.O.W.), and John E. Sayers (father of Assoc. Member John E. Sayers) [Appendix B].

b. President Dawson announced that Albena M. Jones, the mother of PLSW Past President Becky J. Braman, passed away on 2 February 2002 in Idaho Falls, Idaho. The funeral is scheduled for 10:30 a.m. at St. Mary's Cathedral, Cheyenne.

5. Last Call for Sealed Ballots: Scott R. Pierson, Chairman, Tellers Committee, announced the last call for ballots.

6. Minutes of the Annual and Board of Directors' Meeting in 2001:

a. Motion/second by John A. Steil/Lloyd Baker to approve the minutes for the PLSW 2001 Annual Meeting (1 February 2001). Motion passed [Appendix C].

b. Secretary/Treasurer Stoughton presented the approved minutes for the February, May, and August 2001 and the draft minutes of the December 2001 Board of Directors' meetings. No membership action required [Appendices D, E, F, and G].

7. President's Report: President Dawson welcomed the attendees and listed several accomplishments and issues. He talked about the state of the society and the status of G.I.S. mapping. In particular, he mentioned the governor's proposal to form a unified G.I.S. agency. His closing remarks pertained to formation of a Past President's Advisory Committee to provide the PLSW President insight on professional issues from time to time.

8. Secretary/Treasurer's Report:

a. Secretary Stoughton requested that the Chapters submit the names of the 2002 officers. This list will be attached to the 2002 Directory.

b. The Statement of Income for 2001 was presented [Appendix H].

c. The Statement of checkbook activities for 2001 was presented [Appendices I.1 and I.2].

d. The Statement of Investments for 2001 was presented [Appendix I].

e. Motion/second by Paul N. Scherbel/James D. Claflin to accept the submitted reports. Approved

9. 2002 Budget: Secretary/Treasurer Stoughton presented the 2002 Budget which was approved at the PLSW Board of Directors' meeting of 7 December 2001. He recommended one change to the submission. Motion/second by Paul N. Scherbel/Kevin D. Jones to accept the amended budget [Appendix K]. Motion approved.

10. Committee Reports: [Appendix L, except as noted]

a. Audit - Finance: Rick L. Hudson [Past President once removed].

b. By-laws: John I. Dolinar.

c. Convention: Don A. Davis.

d. Education: Joel T. Ebner.

e. History: Herbert W. Stoughton.

f. Legislative: John A. Steil [Appendix M].

g. Manual of Professional Practice: Donald W. Oakley.

h. Membership: Herbert W. Stoughton.

i. Newsletter - Lines & Points: Don A. Davis, John H. Hibsman, Jr., and Steven J. Strang.

j. Nominations and Elections: Peter J. Hutchison, John P. Lee, and Rick L. Hudson [most recent three past presidents].

k. PLSW Handbook: Herbert W. Stoughton, Secretary/Treasurer.

l. Professional Awards: S. Dennis Dawson - to be announced later in the meeting.

m. Public Relations: Larry T. Perry.

n. S.O.S. [Corner Record Honorarium]: Paul A. Reid.

o. Scholarship: Martin A. Pedersen.

p. Standards, Ethics, & Professional Practice: Paul R. Campbell.

q. Trig Star: Joel T. Ebner.

r. Allen Mace Memorial Scholarship Raffle: Chris D. Hamilton.

s. Corner Record & Cross Index Plat: Rick L. Hudson.

11. Delegate Reports:

a. ACSM National Society of Professional Surveyors: William D. Braman, Governor, attended the spring ACSM meeting and participated in the NSPS Board of Governors meeting. His report was published in Lines & Points. In the summer he asked to be replaced due to personal reasons, and Jeffrey B. Jones attended the Fall ACSM meeting. Governor Jones' report was published in Lines & Points.

b. Western Federation of Professional Surveyors: Paul A. Reid, delegate. After each WestFED Directors' meeting, a report is submitted and published in Lines & Points. Mr. Reid was unable to attend the Annual Meeting, because he was enroute to the WestFED meeting.

12. Old Business:

a. PLSW Investment Policy: Herbert W. Stoughton. Secretary/Treasurer Stoughton reminded the members that Sections 1 through 12, inclusive, of the policy was approved at the 2000 Annual Meeting. He had been directed to contact the

(Continued on page 6)

-ANNUAL MEETING

(Continued from Page 5)

NSPS Foundation, Inc. and discuss Section 13, and, in the event PLSW ceased to exist, would the NSPS Foundation, Inc. oversee the investment program and disburse scholarship monies in accordance with the PLSW directives. Secretary Stoughton is awaiting a letter from Mr. Dolan.

b. Retired/Deceased Surveyors Directory: Martin A. Pedersen. No report.

c. PLSW Home Page: Richard W. Greenwood and Skylar V. Wilson. No report.

13. Presidential Citations: President Dawson presented certificates of appreciation for outstanding service to the Professional Land Surveyors of Wyoming to the following individuals:

- a. Joel T. Ebner, member.
- b. Kevin D. Jones, member.

14. Election Results: Scott R. Pierson, Teller, announced that the winners of the election were: S. Dennis Dawson, President; Don A. Davis, Vice President; and Herbert W. Stoughton, Secretary/Treasurer. There were seventy-five (75) ballots cast. The bylaws proposal was approved by the ballot count of 74 yes, 0 no, and 1 abstention. The bylaws require an affirmative vote of two-thirds of those voting for the change in the bylaws [Article XIII: Amendments; Section 1: Implementation].

15. Installation of 2002 PLSW Officers: Since NSPS Director Becky J. Braman was absent due to a death in the family, and the PLSW officers were reelected, President Dawson recommended to the attendees that the officers were continuing and that a formal installation would not take place. The attendees concurred.

16. Seating of New Officers and President's Inaugural Address: President S. Dennis Dawson stated that his remarks made earlier indicated his future direction for 2002.

17. Old Business:

a. Survey Control Database: John P. Lee. Mr. Lee reported that he had the funding carried over to explore the matter, because little had been done in 2001.

b. NSPS and state organization restructuring. The letter written to William Braman at the request of the attendees of the 2001 Annual Meeting was forwarded to ACSM/NSPS. Governor Jeffrey B. Jones indicated that no reply had been received, but that he would follow up on this matter. No action was required.

18. New Business:

a. Surveying the Gangplank fund raiser. President S. Dennis Dawson stated that the Southeast Chapter was investigating the possibility of printing a limited edition of the painting featuring surveyors for the Union Pacific Railroad west of Cheyenne under attack by an Indian war party. Motion/second by John P. Lee/Kevin D. Jones to direct the Board of Directors to investigate the feasibility of this fund raiser. Approved.

b. Adoption of a new official (statutory) map size [11 inch by 17 inch). The Wyoming Department of Transportation (WYDOT) has requested contracting surveyors to submit the survey maps on 11 x 17 sheets. Motion/second by Kevin D. Jones/Scott R. Pierson for the matter to be discussed at the Chapters and comments reported to the Board of Directors. Approved.

c. University of Wyoming surveying courses; Peter M.

by the University of Wyoming stated that the surveying courses are ABET accredited. Mr. Jorgensen further stated that ABET does not accredit course but does accredit academic programs. The surveying courses offered by the University of Wyoming are offered by the Extended Campus and that there is no bona fide surveying academic program. A discussion followed. President Dawson directed that Mr. Jorgensen and Secretary/Treasurer Stoughton review the matter and submit a report to the Board of Directors.

19. Announcements:

a. The first PLSW Board of Directors' meeting for 2002 would follow immediately after conclusion of the Annual Meeting.

b. The schedule for the remainder of the Board of Directors' meetings is:

1. 11 May 2002; Casper; location to be determined; 10:00 a.m., M.D.T.
2. 24 August 2002; telephone conference call; time to be announced.
3. 15 November 2002; Casper; Parkway Plaza Hotel; 12:30 p.m., M.S.T.

20. Adjournment: Motion/second by Paul A. Blough/Don A. Davis to adjourn the 2002 PLSW Annual Meeting. Motion passed. Meeting adjourned at 4:15 p.m., M.S.T.

Respectfully submitted,

Herbert W. Stoughton, Secretary/Treasurer

-IN MEMORIAM

(Continued from Page 22)

Mr. Roberts is survived by a son, Glen L.C. "Leon" Roberts of Urbandale, Iowa; daughter, Joan E. Tierney of Narragansette, R.I.; six grandchildren and seven great-grandchildren.

He was preceded in death by his wife, Mercedes Roberts on Aug. 8, 1988; his parents, Collins and Flo Roberts; brothers Rub, and Enos Roberts, and one great-grandchild.

John F. Sayers

11 February 1952 - 3 May 2001

Father of Assoc. Member John David Sayers

John E. Sayers, 49, of Cheyenne, died Thursday, May 3, at United Medical Center - West.

He was born Feb. 11, 1952, in Butler, Pa., and had lived here since July 1991 with prior residence in Oakland Park, Fla.

Mr. Sayers was a fire fighter for the city of Oakland Park for 19 years and has owned and operated DecoRoom in Cheyenne.

He was a member of St. Mary's Cathedral, Cheyenne Frontier Days Indian Committee, Rotary Club, Military Affairs Committee, was a leadership Cheyenne graduate, former member of St. Mary's Parish Council, chairman of Leadership Unlimited Committee and vice chairman of the Steering Committee of Leadership Unlimited.

Mr. Sayers is survived by his wife, Diane Sayers of Cheyenne, whom he married Nov. 22, 1972; son John D. Sayers of Cheyenne; a daughter and son-in-law, Jennifer and Lee Chavez of Laramie; a granddaughter, Jessica Chavez of Laramie; his parents, LaVerne and Joan Sayers of Pompano Beach, Fla.; and three brothers, William Sayers of Jupiter, Fla., Joseph Sayers of Fort Lauderdale, Fla., and Thomas Sayers of Leesburg, Fla.

SURVEY TECHNICIAN CERTIFICATION PROGRAM

INCREASE YOUR OPPORTUNITIES BY
BECOMING A CERTIFIED SURVEY TECHNICIAN

ASK THE QUESTION ARE YOU A CST?

- Provide a Career Ladder for Technicians
- Provide Credentials to Technicians
- Provide a Standard Way to Evaluate Staff and New Applicants
- Receive Discounts on Insurance

For more information contact Trish Milburn
at (240) 632-9716 ext. 105,
email <tmilburn@acsm.net> or visit our
website at www.acsm.net

NSPS, 6 Montgomery Village Avenue, Suite
403, Gaithersburg, MD 20879

Oil City PRINTERS

544 E. YELLOWSTONE
CASPER, WYOMING 82601

(307) 234-1030

(800) 735-8411

FAX: 237-7229

Email: oilcity@wyobeam.com



Serving Casper & Wyoming since 1917

Thinking about GPS?

Give Inland a call and we will show you why
Trimble is the best GPS value!

...or better yet, ask our customers who have Trimble GPS. They're our best advertising!

Inland GPS became a Trimble Navigation dealer four years ago. It has been our pleasure to offer Trimble's outstanding products and be part of this excellent organization. We are especially impressed with Trimble's determination and efforts to assure that every customer is happy, productive, and profitable with their Trimble equipment.

Call about our innovative training and try-before-you-buy programs.

INLAND GPS

TRIMBLE GPS EQUIPMENT - SALES, RENTALS, AND TRAINING

P.O. Box 1525

Cody, Wyoming 82414

Glenn Borkenhagen, P.E. - Owner

307-527-6684

e-mail: glenn@inlandwyo.com



Trimble

Coming soon: www.inlandwyo.com

In Memoriam

Thomas A. Perrott

23 October 1938 - 23 September 2001
Geodesist - Geodetic Survey Squadron

Thomas Albert Perrott, 62, of Cheyenne, died Sept. 23 after a short illness.

He was born Oct. 23, 1938, in Waynesboro, Va., and had recently returned to Cheyenne.

Mr. Perrott had worked for the Department of Defense, Defense Mapping Agency, and F.E. Warren AFB, Wyoming. Mr. Perrott was a geodetic surveyor specializing in field surveys, data reduction, geodetic adjustments, and datum transformations which supported DoD tactical and strategic weapons systems.

Mr. Perrott is survived by his wife, Carolyn S. Perrott; son Gary Giesler; Dani Adams, Jamie Hammer, and Christy Sawina; his mother, Mary Perrott; brothers Pat Perrott and Ronald Perrott; sister, Sheila Wagner; and one grandchild.

Raymond E. Connin

11 October 1952 - 10 July 2001
former PLSW Member

Raymond Edward "Ray" Connin, 48, of Cheyenne died July 10, in Simi Valley, California.

He was born Oct. 11, 1952, in Fulton County, Ohio.

Mr. Connin graduated from Central High. He held a master's degree in adult vocational education from the University of Wyoming.

He had been a associate professor at Penn State University, and taught at UW and at Laramie County Community College.

Mr. Connin was a licensed professional land surveyor in Wyoming, Colorado, and Arizona. He owned Associated Land Information Services in Cheyenne. He was employed by Hubell Pilarski Engineering in Simi Valley. He had served in the U.S. Marine Corps.

Mr. Connin is survived by daughters, Vici S. Kushner and Heather D. Baker, both of Cheyenne, and Carol R. Johnson of Wilkes Barre, Pa.; his parents, Mary L. and Edward D. Connin of Cheyenne; three brothers, Curtis L. Connin of Cheyenne, Robert L. Connin of Keizer, Ore., and Roger D. Connin of Salem, Ore.; sisters, Ruth A. Dentz of Cheyenne and Deborah K. Robson of Keizer; six grandchildren; and several nieces and nephews.

Glen L. Roberts

9 November 1909 - 10 March 2001
Professional Engineer/Professional Land Surveyor
Wyoming Department of Transportation

Glen Leroy Roberts, 91, Cheyenne, died March 10 at United Medical Center - West.

He was born Nov. 9, 1909, in Hollenberg, Kan., and had lived here since 1954 with prior residence in Sheridan and Sundance.

Mr. Roberts was a civil engineer for the Wyoming Highway Department for 44 years, and was chief of right of way for the highway department. He became a licensed civil engineer through self education.

He was a member of the Moose Lodge, former member of the Eagles Lodge, lifetime member of the Philatelic Society, former Toastmaster, member of the American Association of Retired Persons, Republican Party, and Great Dads of the World.

(Continued on Page 23)

The National Society of Professional Surveyors Foundation, Inc. is a non-profit corporation whose mission is to promote educational, scientific and charitable activities in the field of surveying and mapping.

Over the years, surveyors have demonstrated with pride, a desire to support the preservation and development of the surveying profession both on the state and national levels. The **NSPS Foundation** needs your help and guidance now to enhance the profession nationally. All contributions are tax-deductible. THE FOUNDATION BOARD OF TRUSTEES SINCERELY APPRECIATES YOUR SUPPORT!!!

MEMBERSHIP

Four categories of membership have been established as follows:
 (Please check one.)

- | | |
|--|--|
| ☐ 1. Regular Member \$35 contribution | ☐ 3. Sustaining Member \$500 contribution |
| ☐ 2. Century Member \$100 contribution | ☐ 4. Lifetime Member \$5000 contribution |
| <small>(Single payment or extended over a 5-year period)</small> | |

The regular, century and sustaining memberships cover a period of one membership year and the lifetime membership is for the duration of the life of the contributor.

Name _____

Address _____

City _____ State _____ Zip Code _____

MC/Visa # _____ Expires ____/____

Name on Card _____ Signature _____

Please mail completed application to:

NSPS Foundation Inc.
 5410 Grosvenor Lane, Suite #100
 Bethesda, Maryland 20814
 Phone 301/493-0200 Fax 301/493-8245

**National Society
 of Professional
 Surveyors
 Foundation, Inc.**



In this place, performance always counts.

"When we got the call to survey Yankee Stadium, you can be sure we wanted the Leica TPS700 at the plate."

"Yankee Stadium is a tough place to perform. Everywhere you turn, you're reminded of a rich history of great performers. That's why, when we got the call to survey the stadium for an under-field drainage system, we needed an instrument we could count on to get the job done right. Our Leica TCR703 enabled us to shoot nearly 800 points in 10 hours, providing a topographic survey with a contour interval at 0.2 feet. Leica's speed and accuracy allowed us to complete the project in a single day. And, believe me, that single was a big hit."

Call 1-800-367-9453 for more information on Leica's TPS700 Performance Series.

You can also call Leica Geosystems at 770-447-6361 or visit www.leica-geosystems.com

Dave Wakin
 Wakin Land Surveying
 Delhi, NY

Leica
 Geosystems

DRAFT

Professional Land Surveyors of Wyoming, Inc.

Board of Directors' Meeting Minutes, 7 February 2002

1. The Board of Directors' Meeting of the Professional Land Surveyors of Wyoming.
 - a. Location: Sheridan, Wyoming; at the Sheridan Holiday Inn.
 - b. Date & Time: Thursday, 7 February 2002 at 16:28 hrs. M.S.T.
 - c. Presiding Officer: Mr. S. Dennis Dawson, P.L.S., President.
2. Agenda: The final agenda is appended [Enclosure No. 1].
3. B.O.D. Minute: Motion by Jones/Fehringer to approve the corrected minutes of the Board of Directors' meeting of 7 December 2001 at Casper. Approved.
4. Secretary's Report: The report was presented at the Annual Meeting.
5. Treasurer's Report: The financial reports were distributed. Motion by Jones/Forbes to approve the submitted financial reports. Approved.
 - a. Checking account: [Enclosure No. 2].
 - b. Income: [Enclosure No. 3].
 - c. Investments: presented at the Annual Meeting.
6. President's Report:
 - a. No action items,
7. Committee Reports:
 - a. Audit-Finance Committee: presented at the Annual Meeting.
 - b. Bylaws Committee: presented at the Annual Meeting.
 - c. Convention Committee: presented at the Annual Meeting.
 - d. Education Committee: presented at the Annual Meeting.
 - e. History Committee: presented at the Annual Meeting.
 - f. Legislative Committee: presented at the Annual Meeting.
 - g. Lines & Points: presented at the Annual Meeting.
 - h. Manual of Professional Practice: presented at the Annual Meeting.
 - i. Membership Committee: Motion by Stoughton/Fehringer to approve admission to membership (various grades) the following applicants:
 1. Paul W. Smith - Member.
 2. Mark Lippincott - Associate Member.
 3. Kirk F. Adkins - Associate Member.
 4. David C. Holmes - Associate Member.
 5. Dave Proctor - Associate Member.
 6. David L. Meserve - Student Member

- j. Nominations & Elections Committee: presented at the Annual Meeting.
 - k. Professional Awards Committee: presented at the Annual Meeting.
 - l. Public Relations Committee: presented at the Annual Meeting.
 - m. S.O.S. Committee: presented at the Annual Meeting.
 - n. Scholarship Committee: presented at the Annual Meeting.
 - o. Standards, Ethics & Professional Practice Committee: presented at the Annual Meeting.
 - p. Trig Star Competition Committee: presented at the Annual Meeting.
 8. Delegate Reports:
 - a. ACSM-NSPS Board of Governors: presented at the Annual Meeting.
 - b. WestFED: presented at the Annual Meeting.
 9. Old Business:
 - a. No matters discussed.
 10. New Business:
 - a. The matter concerning advertising education course offering which was raised by Mr. Jorgensen at the Annual Meeting was discussed.
 - b. The Northeast Chapter requested guidance in conjunction with how to proceed with a matter concerning professional practice. The consensus was that the Chapter collect what information they have, annotate the problems, and forward the material to the PLSW Standard, Ethics & Professional Practice Committee (Paul Campbell, chairman) for guidance.
 11. Miscellaneous:
 - a. There were no action items. The attendees conducted brief discussions of a number of matters of a general nature. These pertained to committee assignments and perspective scheduling of various activities before the May 2002 Board of Directors' meeting.
 12. Announcements:
 - a. The next Board of Directors' meeting is scheduled for 11 May 2002; at Casper. The Board of Directors requested Vice President Don Davis to determine if we could convene the meeting at the Elk Horn Canyon Cafe & General Store [the site of the meeting on 19 May 2001]. The final site will be announced in the agenda published for that meeting.
- Respectfully submitted,
Herbert W. Stoughton, Secretary/Treasurer

Theme: Qualified support of the NCEES Model Law

The New Mexico Professional Surveyors (NMPS) recognize and support the objectives of the NCEES Model Law in promoting greater uniformity of professional qualifications, raising those qualifications to a higher level of accomplishment, and simplifying interstate licensure of surveyors and engineers. This support is qualified in respect to the following concerns:

- In paragraph C in the definition of the practice of surveying, a fine line separates the "survey control" referenced in this passage from "survey control" that is required to be referenced and identified by a Professional Land Surveyor. These survey control points that will be set and referenced by the Geomatics Professional must be limited to non-boundary monuments, of any kind, to eliminate the possibility of misinterpretation. The Geomatics Professional should be clearly advised that Public and Private Survey Monuments only become monuments after they have been determined to be monuments by a Professional Land Surveyor. In addition, reference to those monuments within the mapping product prepared by the Geomatics Professional should be expressly prohibited.

- The Model Law has not been written in an attempt to standardize the entire practice of surveying in the United States. State-specific surveying issues will remain valid beyond the adoption of the Model Law by the jurisdictions governing the practice of surveying. We therefore must reaffirm the educational and testing requirements for the State of New Mexico. Our state requires distinctive educational qualifications and New Mexico

specific testing prior to licensure as a Professional Surveyor. The Model Law shall not circumvent those requirements. Reciprocity shall only be extended to those candidates meeting the Board mandated educational requirements for the State of New Mexico and passing the state-specific proficiency exam.

- The current ABET requirements for a surveying curriculum do not include fundamental or advance principles of Boundary Survey Law. This defect should be remedied before completion of ABET accredited degree programs are required for the Model Law surveyor.

If these concerns are addressed and remedied by the Task Force on the NCEES Model Law for Surveying in revision to the current proposed Model Law to the satisfaction of our organization, NMPS is prepared to support this document without further qualification.

NMPS also recognizes that the language of the Model Law should concentrate on the professional jurisdiction of the practice of surveying, clearly identifying those activities requiring the services of a registered professional surveyor in order to safeguard the public health, safety and welfare. It acknowledges the legitimate concerns of the GIS community over the common use of technology and to that end also supports the GIS/LIS Addendum to the Model Law including the recommended inclusions and exclusions to the practice of land surveying as stated by the addendum.

Board of Directors, NMPS, Adopted 12-08-01



SURVEY SUPPLY SERVICE COMPANY

MANUFACTURER CUSTOM
SURVEY STAKES, LATH, & BRASS CAPS
FLAGGING - PIN FLAGS - FLUORESCENT PAINT

ROBERT C. SHOOK

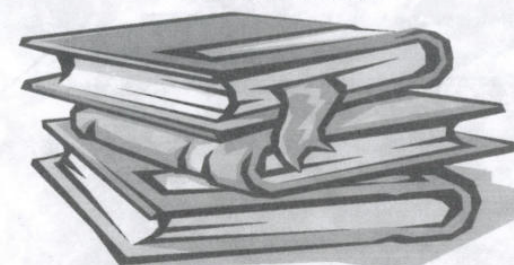
P.O. Box 51227
Casper, WY 82605-1227



SCHERBEL ON SURVEYING

A compilation of parts of the
WYOMING STATUTES
and others items of interest to
PROFESSIONAL LAND SURVEYORS
Order from SURVEYOR SCHERBEL, LTD.
Box 4296, Big Piney - Marbleton, Wyoming 83113

PLSW Field Books



Field books with PLSW logo Printed on front
Orange in Color with logo in Black

**MINING TRANSIT STYLE
WITH 10 X 10 GRID**

**AVAILABLE FROM
PLWS SE CHAPTER
FOR
ONLY \$10.00 EACH**

PLSW SE
C/o Terrestrial Surveying & Mapping Co.
P.O. Box 82
Cheyenne, Wyo. 82003

ATLAS REPRODUCTION

AUTHORIZED AGENT FOR

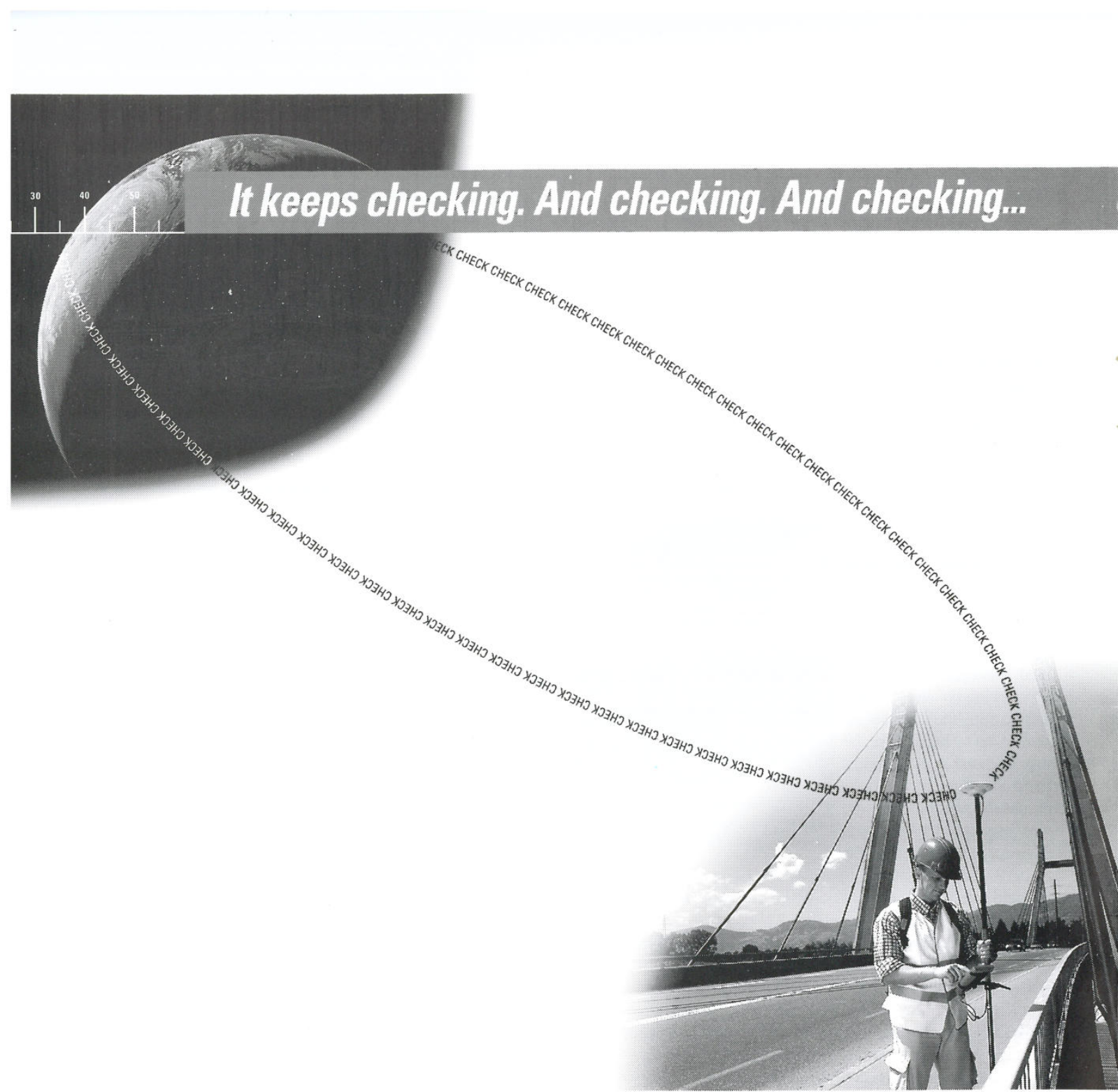
XEROX®

**USWEST
CELLULAR**

**Free Pick-Up & Delivery
Complete Reproduction Services**

800 East A Street Casper, WY

237-9523 or 800-372-3837 In State



It keeps checking. And checking. And checking...

The Leica System 500's CheckMate™ technology gives you the fastest and most reliable RTK performance available today.

In these tight economic times, productivity is everything. But if your GPS system chooses the wrong set of ambiguities, every point surveyed is wrong. That's why Leica developed CheckMate technology. It works nonstop to check the accuracy of its work. The advanced CheckMate technology in today's Leica GPS System 500 gives you 99.9% accurate results. It checks the numbers. And it keeps checking to give you the right results—every time.

For more information call your Leica Geosystems rep or email us at checkmate@leica-geosystems.com. We'll send you Leica's new CheckMate Package, filled with information designed to help increase your productivity. You'll receive a free gift and valuable offers worth thousands of dollars, making a smart technical decision a smart business decision, too. CheckMate. You win!



Leica
Geosystems

You can also call Leica Geosystems at 770-447-6361 or visit www.leica-geosystems.com/us

Navigable Streams In Wyoming

by Skylar V. Wilson, LS

Surveyors occasionally find it necessary to determine if a stream is navigable or nonnavigable. That is because the ownership of the bed is tied with the navigability or nonnavigability of the stream. If it is navigable, the ownership of the bed lies with the state (or federal government). If nonnavigable, ownership lies with the riparian owner.

The definition of navigability, in the federal sense, is usually tied in with some notion of commercial use on an interstate or international level. At the state level, definitions vary. So how does the State of Wyoming define navigability? The Wyoming Supreme Court had occasion to examine this question in some detail in a 1961 case titled *Day v. Armstrong*.

At issue was the public's perceived right to float upon a portion of the North Platte River versus the riparian owners' alleged right to limit trespass. Though at heart a floater's issue, the case is illustrative as all parties involved made heavy reference to navigability and all its attendant definitions and ramifications.

The floaters maintained that the river was navigable, in the federal sense, as it had been used commercially to move crossties, timber, logs, etc., in the past. As such, the bed of the river lay with the State, and that the public was then entitled to use the bed; that the State owned all waters in trust and had the responsibility to see that the public enjoyed the full use of those waters. Therefore, the public had the right to use the bed and channels of natural streams and the waters upon them for fishing, boating, floating, hunting, hiking, walking, and camping. Furthermore, the riparian owners should be enjoined from constructing any kind of fence or structures across the streams which may impede the enjoyment of the waters and channels.

The riparian owners (ranchers) maintained it was not navigable, that some intermittent and sporadic instances of logs, ties, and timber being floated downstream did not constitute commercial navigation; that they could restrain the public from trespass upon these nonnavigable streams; that they had the right to build fences across the streams in conjunction with their ranching operations; and that the legislature's intent for the use of the State's water was for irrigation and domestic purposes.

The Court arrived at some interesting conclusions. They note that the Legislature had enacted Ch. 68, § 2, S.L. of Wyoming, 1909 (see also § 41-3, W.S. 1957) giving recognition to transportation as a valid use of the state's waters. Further, that because of Wyoming's Constitution and Congressional approval at the time of statehood, the title of all waters of the State is placed in public ownership.

They studied the issue of navigability in great detail, noting that at the time of the State's admittance to the Union there were no federal claims to any waterways within the state, therefore there were no federally navigable streams in Wyoming. They note that in lieu of any federal claim many other states have used various definitions and approaches to navigability, but that all of them claim the right to catalog streams (even portions of streams) as navigable or nonnavigable as they see fit.

Wyoming, then, should be no different. But in fact, no streams to that point had been declared either navigable or nonnavigable. The Court's understanding of the reason behind declaring a stream navigable or nonnavigable was to determine the ownership of the bed. Public ownership of the streambeds and waters was necessary to forestall interference with commercial navigation.

would probably be classified as nonnavigable. And they were reluctant to deprive the riparian owners of title to the streambed, noting that the original patents did not exclude or reserve the channels. But the waters of the North Platte which flowed over and along those streambeds was owned by the state and the public had a right to enjoy those waters.

So how could they respect the rights of the riparian owners while ensuring the public with access to its water? They lit upon the notion of vertical ownership, much like surface rights and mineral rights. Like surface rights and mineral rights, each party has a fee interest in property that occupies the same location, albeit vertically. And each party bears a burden, i.e., an easement to accommodate the other's access.

So where does the easement to move the water along the various streams come from? Here the Court becomes transcendent. They held that "The title to waters within this State being in the State, in concomitance, it follows that there must be an easement in behalf of the State for a right of way through their natural channels for such waters upon and over lands submerged by them or across the bed and channels of streams or other collections of water." They further note that "The waters not being in trespass upon or over the lands where they naturally appear, they are available for such uses by the public of which they are capable." So there it is. The easement is a concomitant right that accompanies ownership of the waters.

In conclusion, the Court held "That the portion of the river in dispute is nonnavigable; that its riparian owners have title to the bed and channel of the river; but that this title is subject to an easement for a right of way of the river's waters in their natural channel through, over and across defendants' lands; that the waters of the river are the property of the State and are held by it in trust for the equal use and benefit of the public; that the waters of the river may be used by the public for floating usable craft therein or thereon and for transporting in such usable craft persons or property; that as an incident to the full enjoyment and use of the State's easement for its waters over and across the lands held in private ownership, persons so floating in usable craft may, when necessary, disembark and walk, or wade upon submerged lands in order to pull, push, or carry craft over or across shallows, riffles, rapids or obstructions; that while so floating in usable craft, the public may fish or hunt or do any and all other things which are not otherwise made unlawful, but that the State is without power to authorize the violation of any property rights of riparian or other owners except as incident to the full exercise of easement to which property may be subject; that the waters of the river, if capable thereof, may also be used for transporting logs, ties, timber and other material when permitted by State law; that riparian owners of lands bordering upon or through which the river flows may not in any manner obstruct the flow of the river's waters so as to interfere with or prevent the free passage of any craft used commercially or for recreation or for floating ties, logs, or timber;..."

What starts out as a case where the notion of navigability promises to be the primary issue at hand turns out not to be the overriding concern of the Court. It is instructive to surveyors, nonetheless, because the Court did examine navigability so thoroughly, and essentially concluded that there are no streams in Wyoming that have been declared navigable. (To read the opinion in its entirety, see 362 P.2d 137, or go to <http://plsw.org/>

CORNER PERPETUATION

R.L. "Rick" Hudson L.S.

WELCOME TO OUR CORNER OF THE WORLD

The quest for the "permanent" corner monument has preoccupied most land surveyors for about as long we have been performing land surveys. The utilization of physical objects to mark the "boundaries" of private and public lands is no less significant in this high-tech age than it was in the labor-intensive "good old days" of land surveying. I believe it is our duty, as individuals within this profession, to periodically revisit such matters as corner perpetuation. Whether for affirmation or enlightenment, such a discussion is beneficial to the fulfillment of our responsibilities to our profession, clients and the public.

It is with that intent, and a sharing of personal experience, that I invite you to join me on another excursion into the reality of earning a living as a land surveyor in Wyoming.

A LITTLE HISTORY

As a practical matter most of us will be dealing with nothing more aged than the General Land Office original surveys, performed during the period from about 1870 through 1910. These surveys are the foundation upon which homesteads, irrigation works, mining claims, transportation routes and townsites were located. Perpetuation of those original corners is an essential element of our practice of land surveying in Wyoming. During the early 1880s a very large number of original surveys were performed, some later found to be rather poorly executed; necessitating dependent, tract segregation and independent resurveys. Numerous resurveys, for various reasons, are still being performed by the cadastral branch of the Bureau of Land Management.

A considerable number of our retracement and partition surveys involve original surveys performed by other surveyors; some of whom predated 1907 registration, many of whom are deceased. Retracements within townsites, additions and rural subdivisions, along with individual metes and bounds parcels as well as section breakdowns, repeatedly test our collective professional judgment.

NAVIGATING THE PAPER TRAIL

A critical, but occasionally underutilized aspect of land surveying centers upon research of information pertaining to prior surveys. While excellent documentation exists for some surveys, particularly those performed by the General Land Office and its successor the Bureau of Land Management, other surveys are generally documented to a lesser degree. We find a considerable number of townsite, addition and subdivision plats containing little if any information regarding monumentation particulars; some only cryptically stating "set iron pin" or "found corner"; leaving far too much to speculation. On the other hand there are valuable, often difficult to locate, survey records tucked away in courthouse vaults, home attics and basements. Unfortunately, a significant amount of documentation has been destroyed; either through ignorance or by conflagration (as in my case), or other catastrophic events.

In order to effectively "follow in the footsteps of the original surveyor" we must be able to determine **where** he went *and what* he set in the ground when he *got* there. Knowing why he was there and how he got there are beneficial but not essential; insofar as these elements may not be evident from the available records.

Generally, there are two primary sources of prior survey information; the Wyoming State Office of the Bureau of Land Management in Cheyenne, and the County Court House in each of the twenty-three county seats across the state.

Survey notes and plats are readily available from the BLM; the service is excellent and the cost is nominal. When retracing "government" original and resurveys, the prudent land surveyor should always obtain and utilize both the transcribed field notes and the survey plat of the "latest approved survey". In areas of recent resurveys the

BIOGRAPHY

Loren C. Bishop, early day engineer and surveyor impacted Wyoming's water resources

Early day Wyoming engineer and surveyor Bishop's contributions and major accomplishments to the State of Wyoming was his advocacy in protecting the water resources of the State for use by Wyoming water users.

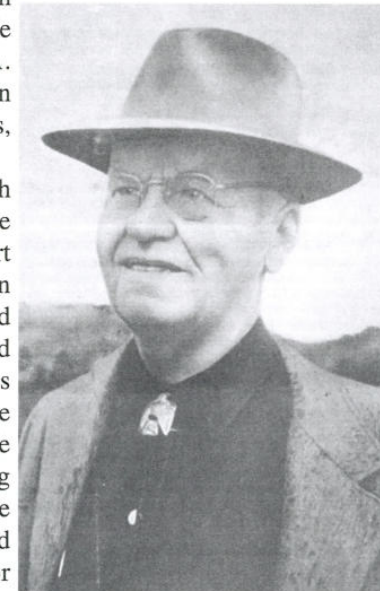
Loren "Clark" Bishop was born in 1885 in Albany County (later Converse County) in the Territory of Wyoming. He was raised on the S.A. Bishop homestead on LaPrele Creek near Douglas, Wyo.

He completed the eighth grade, but had to leave formal schooling to support his family. His early ambition to become an engineer and land surveyor was pursued by working on survey crews and learning the basics of the profession by experience. He was licensed as a Wyoming Land Surveyor in 1907. He passed the examinations and was registered as a junior engineer in 1917, an engineer in 1919, and Professional Engineer and Land Surveyor in 1925. He held Surveyor License # 11 & 12 and Engineer License #38 & 216.

Starting in 1906 he worked as a surveyor under Frank C. Emerson, who later became Governor of Wyoming. In 1908 he started a private surveying and engineering practice in Douglas, Wyo., which continued for over 30 years. At various times he served as Converse County Surveyor, Douglas City Engineer, and Engineer-Manager of the LaPrele Irrigation Project. From 1920-1934 Clark Bishop served as Superintendent for Water Division No. 1, encompassing southeast Wyoming.

In 1933-1934 he became embroiled in a political controversy when the Bureau of Reclamation, with the support of the Governor and State Engineer, proposed to build the Casper-Alcova Irrigation Project on the North Platte River, using a 1904 water right priority. Mr. Bishop alerted the water users along the river to the fact that this proposal would have major negative impacts on all North Platte River water users with priorities later than 1904. The public outcry that developed caused the Bureau to back away and to proceed with a 1936 priority. For his involvement in this controversy, Bishop was fired from his position as Water Division Superintendent, but he gained the everlasting respect and support of the Wyoming water users. In 1939 he was appointed as the State Engineer, and served in this capacity for 18 years, longer than anyone else has ever held this position.

Clark Bishop's contribution and major accomplishment to the State of Wyoming was his advocacy in protecting the water resources of the State for use by Wyoming water users. He was



tireless in his negotiations of all of the water use compacts with other western states. The long term consequences to the people of Wyoming are reflected in the water rights afforded the State by early priorities. In 1952, while conferring an Honorary Doctor of Laws degree from the University of Wyoming on Clark Bishop, Dr. G D. Humphrey stated: "Mr. Bishop deserves the gratitude of the people of this state for his work in protecting the rights of Wyoming's water users." His two sons, Loren and Floyd, two grandsons and one great grandson have carried on the Engineering legacy started by L.C. Bishop.

Mr. Bishop's military service started in 1903 when he joined the Wyoming National Guard. He was elected captain in 1912 and commanded Company "F" 3rd Regiment Wyoming Infantry on the Mexican Border (1916-1917). He returned to the Wyoming National Guard in 1932 and served until his retirement in 1939. He was a shooting member at the National Rifle Matches on six Wyoming National Guard teams and two civilian Wyoming teams. Shooting and hunting were among his favorite hobbies.

Clark was deeply involved in the history of the State of Wyoming. As one of the founders of the Wyoming Pioneer Association, he served as the first Secretary-Treasurer and later as President. He wrote historical articles and gave presentations on Wyoming's history, historical events and individuals. He explored and mapped various locations of the early emigrant and freight trails across Wyoming. He was the originator of the Oregon Trail Treks, and produced a detailed map of the Pony Express stations from St. Joseph, Mo., to Sacramento, Calif.

Clark Bishop died in 1961, and is buried in Douglas, Wyo. Bishop Boulevard in Cheyenne, Wyo., is named after him.

Where Am I?

A woman in a hot air balloon realized she was lost. She lowered altitude and spotted a man below. She descended a bit more and shouted, 'Excuse me, can you help me? I promised a friend I would meet him an hour ago, but I don't know where I am.'

The man consulted his GPS and replied, "You're are in a hot air balloon approximately 30 feet above a ground elevation of 2346 feet above sea level. You are 31 degrees, 14.97 minutes north latitude and 100 degrees, 49.09 minutes west longitude."

"You must be a Republican," said the balloonist.

"I am," replied the man. "How did you know?"

"Well," answered the balloonist, "everything you told me is technically correct, but I have no idea what to make of your information, and the fact is I am still lost. Frankly, you've not been much help so far."

The man responded, "You must be a Democrat." "I am," replied the balloonist, "but how did you know?"

"Well," said the man, "you don't know where you are or where you are going. You have risen to where you are due to a large quantity of hot air. You made a promise which you have no idea how to keep, and you expect me to solve your problem. The fact is you are in exactly the same position you were in before we met, but now, somehow, it's my fault."

-WFPS BOD MEETING

(Continued from Page 17)

Two members of HALS will be teaching surveying courses at the University of Hawaii. Kendall Hee, PLS is teaching the CE211 surveying course at the Civil Engineering College and Patrick Cummins, PLS (WESTFED Hawaii Delegate) will be teaching the CE491 Professional Surveying class.

Montana: Montana hopes to complete the position of Montana's Center of Population in the spring of 2002. Montana continues to struggle with the unlicensed practice, and in particular the solicitation by governmental agencies of services which under Montana law are regulated as the practice of land surveying. Appeals to the Board of Registration for assistance has been met with little success. If any WestFed state has information concerning legislation or procedures that might be of assistance, they would greatly appreciate the help. MARLS members have made requests for a WestFed newsletter and also a list of seminar speakers to be posted on the website.

Nevada: The Tri-State conference with Nevada, Idaho and Utah will be held April 7-11, 2002 in Elko, Nevada. Conference programs include City Boundaries, Grazing in the West, Water Boundaries, GPS, US Mineral Survey Program update and Legal Descriptions. Live and silent scholarship auctions will also be held and Chautauqua presentations will highlight the luncheons and banquet.

New Mexico: The NMPS Board approved unanimously to support the NCEES Model Law provided the Task Force on the NCEES Model Law for Surveying addresses issues outlined in their position paper. The New Mexico State Department of Labor has projected a 6% decrease (-20) by 2008 for the profession of

Land Surveying. NMPS is concerned that the figures do not accurately present the professions future demands and are also concerned that using the figures could compromise funding for educational purposes.

Utah: UCLS has an ethics committee that meets regularly to handle complaints against a Professional Land Surveyor. The ethics committee works to resolve any problems or can turn the complaint over to the State Board. One of the continuing problems in Utah is non-registrants performing surveying services. UCLS has a paid lobbyist who monitors and works on bills sponsored that may affect Land Surveyors.

Washington: LSAW is working on the re-definition of surveying for submittal to the Legislature of 2003. Presently it is going through legal review. The state Division of Natural Resources is going to commence work on a GPS guidebook. WFPS delegate Mike Mickiewicz is the LSAW representative and will be assisting in its creation and believes the goal is to create a document similar to the positional Tolerance Guide Book produced a few years ago. Continuing Professional Development legislation has a sponsor and will be introduced to the legislature this session.

Review of the current action items for the next meeting was done. The next two meetings will be extended meetings and are June 28-29 in Las Vegas, Nevada and October 4-5 in Reno, Nevada.

Meeting was without lunch and adjourned at 2:30 p.m. The meeting was reconvened at the Bishop Museum with a tour and box lunch provided by the Hawaii Association of Land Surveyors. The tour included a history of Hawaiian Land Matters hosted by Pat Cummins, PLS and Chuck Hiawatha, PLS.

Respectfully submitted, Paul A. Reid, Wyoming Delegate

-CORNER PERPETUATION

(Continued from Page 10)

preliminary notes and plat may be available. Heed the printed warning "Preliminary Data Subject To Correction And Approval". Bear in mind such survey returns are not truly final until the survey is officially approved and that corner monuments may be subject to relocation until such approval.

Based upon personal experience as well as reliable hearsay, I can report that you should anticipate twenty-three variations of a theme when it comes to survey documentation at the county level. Each county functions *autonomously* within the *statutory* requirements. In reality some offices maintain more complete files and more "user friendly" systems than others. Items considered invaluable by us; such as plats, records of survey and corner record reports; may receive less than their deserved regal treatment in some cases. Try to appreciate the fact that you found what you were looking for without expressing complaints about the disarray, unless you are willing to lead an expedition to improve the *situation*. While *there* is pragmatic wisdom in the statement "If it ain't broke, don't fix it"; there are situations where a collective public service project, initiated by us, is warranted. Often such projects can be performed by your local chapter of Professional Land Surveyors of Wyoming.

Additional survey documentation may be available from private sources such as surveying firms, retired surveyors and families of deceased surveyors. Afford this source its distinction as private property. Most firms are now willing to share information within their files, some for a fee, others without charge. Be mindful that cost is not indicative of quality. Deciphering another surveyor's field notes and computations can be as formidable as translating Greek into English. Finding some of my own previous work to be lacking clarity helps me retain humility toward others who preceded me, *often under difficult conditions*.

THE LAW-ABIDING LAND SURVEYOR

Our duties regarding corner perpetuation are set forth in state statutes as well as in the rules and regulations of the Wyoming Board of Registration for Professional Engineers and Professional Land Surveyors. The Wyoming Corner Perpetuation and Filing Act (Sec. 33-29- 140, et seq.), dating back to 1967, provides the foundation for the "corner files" found in every county clerk's office. Additionally, the Rules and Regulations of the state board of registration, address the specific components of corner perpetuation including procedural, monumentation and reporting requirements.

As land surveyors, we must conform to the minimum requirements stated in the statute as well as in the rules and regulations. Regardless of the purpose for the survey; whether a gas well location, an irrigation water application, a utility easement, a one-parcel platting, or the retracement and subdivision of several sections; the same attention to detail (read as minimum performance) is mandated regarding corner perpetuation. Be mindful that while these requirements apply to *every public land survey corner used as control in any survey by such surveyor...* "you may rehabilitate and/or report any other corner, station or benchmark you deem appropriate.

Chapter V of the above mentioned rules and regulations, specifically Sections 3-6, specify minimum monumentation requirements, address corner rehabilitation practices and set forth subdivision of section procedures. Section 4 specifically calls for the utilization of the federal government publications "*Manual of instructions for the Survey of Public Land of the United States*" and "*Restoration of Lost or Obliterated Corners and Subdivision of Sections*".

OUT IN THE FIELD

Most of us could be tempted into affixing bumper stickers reading "I'd rather be out in the field recovering original, undisturbed land survey corners and accessories than working at my old, outdated, desktop" were it not for the ten-foot long bumper that would be necessary. In reality, the single most demanding facet of land surveying centers around the recovery, evaluation and perpetuation of corner evidence. I have yet to meet another surveyor who disagrees with the tenet that corner recovery is vastly superior to corner reestablishment. With that in mind,



A High School Trigonometry Skill Awards Program



PURPOSE OF THE CONTEST

- ❖ To promote the study of Trigonometry in High School, and to promote excellence in the mastery and application of Trigonometry, by honoring the individual student who has demonstrated his or her superior skill among classmates at the High School level.
- ❖ To acquaint the high school trigonometry student with the use and practical application of Trigonometry in the Surveying and Mapping professions.
- ❖ To build an awareness of careers in Surveying and Mapping among high school students, guidance counselors, and mathematics teachers.

SPONSORSHIP APPLICATION

A local sponsor is needed for each participating High School. Only one TRIG-STAR will be allowed per high school per year. The local sponsor must apply to NSPS on this application form and list the name of the High School where the contest will be held. A contest packet containing contest instructions, a test packet, an award plaque (if ordered), and a sample news release will be forwarded by NSPS to the local sponsor. The local sponsor will be responsible for making all the local arrangements. The winner will be eligible to compete in the NSPS National Trig-Star Contest and contest information will be supplied with the contest packet.

High School Name (REQUIRED) _____ City and State (REQUIRED) _____

Local Sponsor _____ Mailing Address _____

Phone Number () _____ Fax Number () _____ Email _____

Sponsorship fee: \$30.00 (with plaque) and \$25.00 (without plaque) Enclosed is \$ _____

Makes checks payable to NSPS TRIG-STAR or pay by Visa or Mastercard

Visa/MC # _____ Expiration Date ____/____/____

Name on Card _____ Signature _____

-CORNER PERPETUATION

(Continued from Page 11)

and the fact that we have accepted both the privilege and responsibility of corner perpetuation, we are truly the "corner guardians".

Corner recovery techniques vary depending upon the type of quarry you are hunting. Positive attitude and keen observance are prerequisites in every corner search. The monumentation is either existent, obliterated or lost in that descending order of search. As previously mentioned, having a copy of the record information with you and in use during the search is an essential element of an efficient recovery, rehabilitation or reestablishment. Skillful use of tools and equipment, often requiring us to "get our hands dirty", is also a contributing factor to successful corner perpetuation. Everything from shovels, digging bars and tile probes to magnetic locators, total stations and GPS receivers may be appropriate depending upon the specific situation. Lastly, instill in every member of your crew that recovery skills are developed through experience; instruct them, encourage participation and lead by example.

The utterance "remonumentation" often brings otherwise peaceful land surveyors to clenched fists. Since every one of us has an opinion on this one, ranging from "never" to "always", I offer mine for your consideration.

Pertaining specifically to Public Land Survey System corners: 1) The statute (Sec. 33-29-146) mandates that we "reconstruct or rehabilitate ... so that it remains as permanent a monument as is reasonably possible and ... may be reasonably expected to be located with facility at all times in the future." 2) The rules and regulations (Chap. V. Sec. 5) state "(a) Original monuments found in place and marked as described in the original record may be left in place. (b) Any original monument or evidence of original monument . . . which does not comply with paragraph (a) ... shall be remonumented in order to perpetuate the position of that corner." 3) The 1973 Manual (Chap. 4, Sec. 4-3) cautions "if it is necessary to alter the condition of a previously established monument, the utmost regard should be shown for the evidence of the original location. The monument should be carefully reconstructed by such additional means as may be appropriate, without destroying the evidence which served to identify that position." and concludes by instructing that "A complete record will be kept of the description of the old monument as identified, and all alterations and additions will be specifically noted as such."

Both the federal law (18 U.S.C. 1858) and the state statute (W.S. 6-3-202), pertaining to penalties for corner degradation offenses, refer to unauthorized and willful destruction and removal. I find it illogical that a land surveyor could ever be held liable for willful destruction caused by proper remonumentation and documentation practices.

An issue of ongoing concern to many of us is the practice, largely from the past but still currently performed by some, of "remonumenting" original corners by setting the new monument alongside the original monument. I have found GLO iron posts with brass caps as far as 8.6 feet distant from undisturbed original stones, the notes stating the iron post was set "alongside" the stone; as well as numerous "set rebar with cap alongside found stone" corners. First question. Which of the two positions should I accept as the true corner? Second question. What should I do to prevent further confusion? In the case of the latest approved government survey, the consensus favors using the brass cap as the corner and designating the stone as a memorial. In the latter case; since the previous surveyor most likely tied to the stone, then set the rebar with cap as a memorial; use the stone. Future confusion can be averted through the preparation and filing of a thorough State of Wyoming Corner Record report. There is general agreement that it is a breach of etiquette to displace or remove another's monument; except in those cases where you deem it necessary to fully remonument the corner, or where you recover a badly damaged or deteriorated monument. An acceptable practice that is frequently used is to bury "the evidence which served to identify that position ..." as a memorial.

A related, often avoidable, activity is "double monumentation". While there are instances where each of us may find it appropriate to set a second monument, in a different position, for the same corner; those instances should approach being "as rare as hen's teeth". Although everyone's classic example is the center quarter corner of a section; the practice is equally disdainful wherever found, when it results from our inability to accept reasonable compromise. Egotism, in and of itself, should not be used for rejection or acceptance of a reestablished corner.

-WFPS BOD MEETING

(Continued from Page 16)

goals and objectives. Concern over NCEE and the surveyor's representation was formed into an action item. Each state delegate was to inquire as to finding for board of registration surveyor representation at NCEE meetings.

Scholarship committee chairmen George Strother submitted a written report stating 17 applications for scholarships were received this year. 11 from CSU-Fresno, 4 from OIT and 2 from NMSU. Several of the applications were on forms printed from the web page, so that effort seemed worthwhile. All applicants seem to meet the minimum qualifications. The applications were reviewed and ranked by George Strother and cochairman yours truly.

Recommendation for 8 scholarships were approved and as follows:

Christian Clausen	Senior @ NMSU	\$ 1,200
Serena Kubiak	Senior @ CSU-Fresno	\$ 1,200
Jamie Sause	Senior @ CSU-Fresno	\$ 1,200
Brian Smith	Junior @ OIT	\$ 1,200
Leithan Hietzig	Junior @ CSU-Fresno	\$ 600
Christopher Jones	Senior @ NMSU	\$ 600
Janet Scott	Junior @ OIT	\$ 600
Anthony Squellati	Junior @ CSU-Fresno	\$ 600

Discussion was held with each state delegate giving input concerning WFPS Goals and Objectives. Questions concerning the necessity of a facilitator, date, duration and location were also discussed. It was decided that a facilitator was not needed and the next two meeting of WFPS will be extended meetings beginning Friday night and will address and review WFPS goals and objectives.

State reports were reviewed with oral updates. The following are some of the highlights gleaned from the reports and oral updates:

Alaska: Alaska State Legislature will be starting their second session in early January. Mandatory continuing education for architects, engineers and land surveyors may be coming up for action. Also coming back from previous session will be the request from one state senator that there be written standards for all surveys, in either the administrative code or in statutes. One of the senator's constituents had a poor as-built survey, and the senator wants all surveys to have minimum standards. ASPLS has some education to do so the legislators realize that there are many types of surveys besides as-builts. ASPLS will be hosting Trig Star at several high schools, and has purchased 2,000 of the ACSM "Careers in Surveying and Mapping" brochures to hand out to interested students.



AERIAL PHOTOGRAPHY • GIS • LIDAR • ORTHOPHOTOGRAPHY • TOPOGRAPHIC MAPPING

With over 33 years of photogrammetric mapping experience, we can customize the data-gathering process to fit your needs. Contact us today. *See what we deliver.*

OFFICES:
SOUTH DAKOTA (605) 343-0280
MINNESOTA (952) 931-9869
MONTANA (605) 343-0280
Email: sales@horizonsinc.com



HORIZONS
INCORPORATED
"Aerial Mapping Professionals"

Arizona: Membership in 2001 ended with 720 members. APLS had requested the State Board of Technical Registration to add additional questions concerning the Public Lands Survey System (PLSS) to the Arizona specific portion of the exam. The Board welcomed the idea, but wanted APLS to write the questions. Two new chapters were approved. The chapters are the Rim Country Chapter and the Verde Valley Chapter.

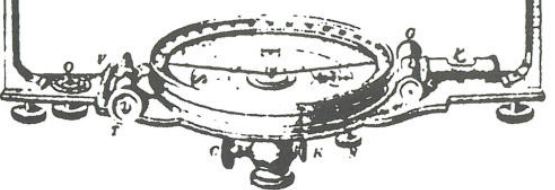
Colorado: PLSC maintains a membership of slightly over 600. The state organization of PLSC, Inc. presented their major technical program Nov. 29 - Dec. 1, 2000 at the Colorado School of Mines in Golden, Colorado. Following the technical sessions there was a banquet and annual meeting. At the close of the meeting members were informed that former Vice-President, Mrs. Diane Kelly-Campbell had just passed away after succumbing to Melanoma. It was a major shock to members because most were not even aware that she was ill.

California: CLSA has increased membership from 1,400 to 1655 members with 21 local chapters throughout the state. The California Surveyor, a quarterly publication, is now mailed to 5000 resident Licensed Land Surveyors. The 2002 conference will be at the Harveys Resort & Casino, Lake Tahoe, Nevada, March 24-27. Proposition 42 will be on the ballot in March which will require state sales tax on gasoline to go to road use only, not the general fund. California now has 310 CORS survey control points in the state. The last few years has been a problem finding funding for the operating costs. Legislators are now beginning to find funds for the points.

Hawaii: HALS has held 6 workshops since June 2001. Topics include Data Collection; Shoreline Certification Procedures; Original Land Commission Award; Descriptions and Translations; Orthometric Heights and AutoCAD tips and tricks.

(Continued on Page 18)

CATCH UP
ON THE PAST



... JOIN SHS!

- subscription to biannual journal "Backsights"
- members-only newsletter "Insights"
- network with others interested in the history of surveying
- exhibit your collections in professional & museum settings
- access to society and member-owned book collections

SURVEYORS HISTORICAL SOCIETY • P.O. Box 11154 - Lansing, MI 48901

Report on WFPS Board of Directors Meeting in Honolulu

On February 9, 2002, I attended the Board of Directors meeting of the Western Federation of Professional Surveyors (WFPS) in Honolulu, Hawaii at the Radisson Waikiki Prince Kuhio Hotel. The meeting was well attended with all member states excluding Oregon being represented. Guests were Curt Sumner, ACSM Executive Director, Bret Jefferson, President of Nevada Association of Land Surveyors, and Chuck Hiawatha, President of the Hawaii Association of Land Surveyors. The meeting was called to order at 7:58 a.m.

Chairman Chuck Paddock presented a written report and verbally gave a summary of his activities. Chuck attended the NSPS meeting in conjunction with the Texas Society's 50th Anniversary, the Professional Land Surveyors of Oregon's annual meeting and the Arizona Professional Land Surveyors rededication of Arizona's Initial Point. He has been invited and accepted invitations to California, New Mexico and Montana. Chuck will also be attending the Instate conference in Elko, Nevada and the F.I.G. Conference in Washington, D.C. Chuck also enclosed copies of his letters to Dr. Carol C. Hatter, President of the University of Nevada, Las Vegas concerning the implementation of a 4 year surveying degree program and the Honorable Gale Ann Norton, Secretary of the Interior concerning the retention of U.S.G.S. Base Mapping Products.

Secretary Steve Parrish gave a verbal report on WFPS activities.

Treasurer Jerry Tippin submitted a financial statement for the

fiscal year ending January 26, 2002. Jerry also noted in his financial statement that due to current economic conditions and low interest rates, all CD's are for 90 days and will Continue until such time when market conditions change. Total current assets are \$150,252.17.

ACSM Executive Secretary, Curt Sumner provided a written ACSM Report to Westfed Board of Directors and summarized the report with a verbal update. Curt continues to make ACSM a viable national organization for the surveyor and was quite impressive with his compassion for doing so. He also stated ACSM is not out of the woods yet. ACSM ended 2001 with a positive fund balance for the first time since Curt's arrival as Executive Director. The turn around is due to the exceptional work of ACSM financial officer Karen Maggi, who joined ACSM in July 2001. This is the first year ACSM has had dependable financial reporting. After Curt's report a standing ovation was given to Curt from the WFPS Board of Directors for his work and accomplishments within ACSM.

Committee reports were made with highlights as follows:

Conference 2003 chairman Mike Mickiewicz gave an update on the 2003 WFPS/LSAW Conference to be held Feb. 19-22, 2003 @ the SEATAC Hilton Inn in Seattle. There will be 7-9 sessions each day and more information can be found on their website. Conference 2005 chairman Ron Whitehead reported the date will be March 19-23, 2005 and are presently negotiating with the Riviera Hotel and Casino.

Education/NCEE Liasion committee chairman Allan Grace submitted a written report and discussion was held concerning

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.

ORDER FROM:

PLSW, NORTHWEST CHAPTER

R. L. Hudson, Secretary / Treasurer

P.O. Box 784

Thermopolis, Wyoming 87442

-CORNER PERPETUATION

(Continued from Page 12)

On the other hand, improperly set monuments, for which little or no documentation can be located, should be rejected. Once again, each situation requires us to diligently exercise our professional judgment.

Legible, intelligible field note records are essential to all resurveys. While these records need not necessarily be confined to pencil on paper, I am of the opinion that they: 1) be taken in the field; 2) be a complete account of our findings and actions; 3) be as permanent and retrievable as can be reasonably expected. Packing a field book along with the data collector still makes good sense; as does the adage "a picture is worth a thousand words".

The "permanent" as well as the "ideal" corner monument has yet to be invented, marketed and utilized. In order to standardize monumentation, the rules and regulations (Chap. V. Sec. 4) set forth minimum monumentation specifications. Allowance for variation, due to individual site conditions, is inevitable and periodically tests our ingenuity. Even though the widely used "rebar with aluminum cap" meets the minimum requirements, many corners warrant the more substantial "iron or aluminum pipe with brass or aluminum cap". Future recovery of the latter type monumentation can be improved by performing the proven techniques of concrete-filling and base-flaring. Accessories, including rock mounds and steel or fiberglass posts, continue to alert the public and protect corner monuments, particularly original stone monuments which, under some field conditions, outlast metal types. Other techniques; including memorials, witness corners, reference monuments, bearing objects, connections to adjacent corners and geodetic state plane coordinate positions; should be employed as may be appropriate. President Theodore Roosevelt, the non-surveyor immortalized on Mount Rushmore, aptly stated "*Do what you can, with what you have, where you are.*"

BACK IN THE OFFICE

Even though most of the fun is over once we bid farewell to the corner, the job isn't done until the paper work is finished. Corner perpetuation consists of as much documentation as it does field work. Remonurnentation or reestablishment of the corner on the ground is part one; preparation and recordation of the report of such endeavor is part two. While several types of documentation are in use, the most easily recognized is the State of Wyoming Corner Record or its predecessors the Certified Land Corner Recordation (Certificate). Prepared in accordance with the statute (Sec. 33-29-140, et seq.) and the rules and regulations (Chap. VIII, Secs. 1 . 3); these single, occasionally multiple, page reports can serve several purposes. As with remonumentation, the mention of "corner records" brings many of us to our feet, often spewing expletives, with opinions ranging from "worthless" to "golden". As with all types of survey documentation, some land surveyors will place greater emphasis on the content and appearance of their reports than will others; and a rather broad range of acceptability exists under the rules and regulations. Since a comprehensive report contains far more text than graphics, the form is well-suited to a word processing format and is available from PLSW in several software applications.

An adequate, better yet thorough, description of recovered and established monumentation is essential. While '*found rebar with cap*' narrows the possibilities, a more complete '*found rebar with 2 in. dia. aluminum cap, 6 ins. below the existing ground surface, stamped CORNER LS 519 1980*' eliminates bewilderment of latter users, many of whom will have no understanding of surveyor cryptology. For our documentation to be effective it must be intelligible to those outside our "inner circle".

CLOSING CALLS

We, as Professional Land Surveyors, have accepted the honor and responsibility pertaining to corner perpetuation within Wyoming. Our performance of that mission is no less important today than it was for our predecessors lest our successors become perplexed in their attempt to "follow in **our** footsteps". Proper monumentation and documentation practices become, in an unmistakable and positive sense, our enduring contribution to society leaving our corner of the world a little better than the day we certified our first land survey.

GET CERTIFIED



SURVEY TECHNICIAN
CERTIFICATION PROGRAM

INCREASE YOUR OPPORTUNITIES BY BECOMING A CERTIFIED SURVEY TECHNICIAN

Designed to meet the needs of both employers and technicians, NSPSCSM continues to offer this multi-level program which will help you increase skills and enhance career opportunities.

You will receive program materials which define the work elements on which you will be tested, sample problems, and a bibliography of references for self study. Earn certification through examinations offered nationwide throughout the year. Your certification will provide you with nationally acceptable skill levels and enable you to get ahead in the workplace.

Survey Technician Level I, Level II, Level III and Level IV are available. The upper three levels are geared to the technician with a minimum of 1.5, 3.5, and 5.5 years total experience respectively. At Levels II, III and IV, one can test in a field track and/or an office track.

Program Fees:	Application Fee	Exam Fee
	0	\$95.00 (Student Member)
	\$30.00	\$95.00 (Member)
	\$50.00	\$125.00 (Non-Member)

Group Discount Now Available

This program is registered by the U.S. Department of Labor.

For more information, complete and return to: NSPSCSM SURVEY TECH
6 Montgomery Village Avenue, Suite #403
Gaithersburg, Maryland 20878-3557
FAX: 240/632-4321 E-mail: marlac@acsm.net

Name _____

Organization _____

Address _____

City, State, Zip Code _____

OR VISIT OUR WEB SITE AT: [HTTP://WWW.ACSM.NET](http://www.acsm.net)

