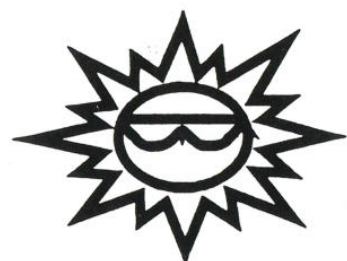


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JANUARY 1995



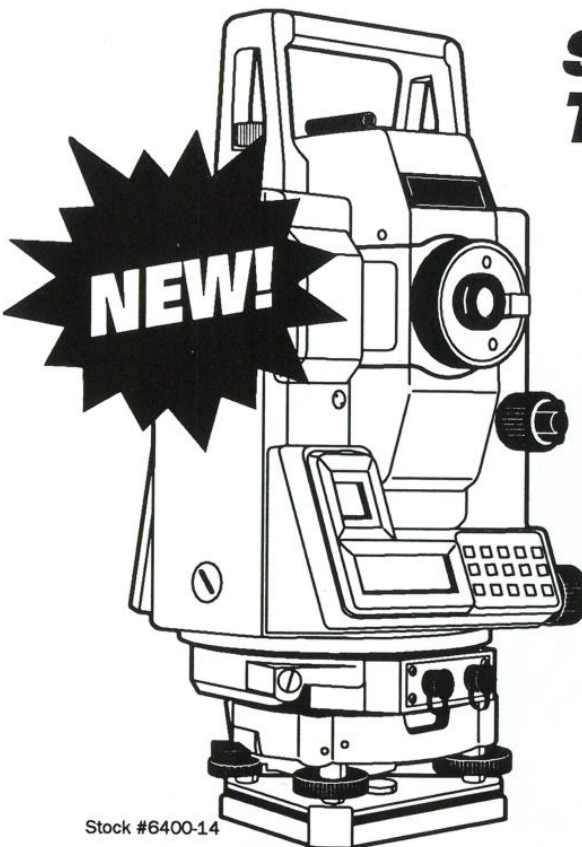
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• 1005 General Meeting Minutes





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To: All Land Surveyors, Students & Survey Technicians, South Dakota, North Dakota, Wyoming, Montana, & Nebraska
Re: Workshop on Dependent Resurveys, and Research & Corner Evidence Analysis.
Also: Meeting of the West River Chapter of SDSPLS on Saturday, March 4, 1995.

Place: Holiday Inn of the Northern Black Hills
I-90 and Exit 14, P.O. Box 399
Spearfish, SD 57783
(605) 642-4683 — For Room Reservations —
(Mention West River SDSPLS Workshop)
Time: 8:00 a.m. to 5:00 p.m., Saturday, March 4, 1995

Fees: \$30.00 before Feb. 20, \$40.00 at the door; \$15.00
Students & Technicians before Feb. 20, \$20.00 at the door.
Make checks payable to: West River SDSPLS
Mail to: Donald F. Simons
RR 1, Box 226A, Spearfish, SD 57783
Phone: (605) 642-0442 Fax: (605) 642-4773

TIME	EVENT
8:00-9:00 a.m.	Registration, Check In and Coffee Hour.
9:00-11:00 a.m.	James D. Claflin - "Powder River Basin Resurveys in Wyoming" - 2 PDH's
11:00-Noon	Richard A. Kohler & Joel T. Ebner - "Research and Corner Evidence Analysis" - 1 PDH
Noon-1 p.m.	Lunch at the Holiday Inn - Included in registration fee.
1:00-4:00 p.m.	Richard A. Kohler & Joel T. Ebner - "Research and Corner Evidence Analysis" - 3 PDH's
4:00-5:00 p.m.	Regular Meeting of the West River Chapter - ½ PDH

Pre-Registration Form (Print or Type)

Please complete and return to Don Simons, RR 1, Box 226A, Spearfish, SD 57783.
Make check payable to West River SDSPLS

Last Name _____ First Name _____
Company Name _____ Phone No. _____
Company Address _____ Fax No. _____
City/State/Zip _____

Land Surveyors Workshop Fees: ☐ \$30.00 before Feb. 20 ☐ \$40.00 after Feb. 20
Student and/or Technician Fees: ☐ \$15.00 before Feb. 20 ☐ \$20.00 after Feb. 20

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☐ APPROVED ☐ REJECTED DATE _____

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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&LS 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 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 are separate from membership dues. Application for membership is subject to approval by the chapter and the state.

methodology employed in the contract surveys. The volume refers to the Oregon Instructions (1851). In 1868, J. H. Hawes, former Principal Clerk of the General Land Office, wrote a work entitled *Manual Of United States Surveying*. This excellent work, however, only addresses Federal legal aspects of GLO surveys. William A. Burt's *A Key To Solar Compass And Surveyor's Compass* adds no further insight. The only other major work to be published prior to Cooley's presentations appeared in 1873. It was Shobal V. Clevenger's *A Treatise On The Method Of Government Surveying*. Again, this work treats the Federal surveying process, and omits any discussion of common law and state and local law, regulations, and rules.

Bellows wrote: "In making subdivisions of Government Surveys, or in resurveying old boundary lines, every surveyor has felt the need of definite instructions relating to a multitude of questions found to arise in the work. The function of a surveyor in most of these cases is a judicial one, and the answers to those questions are to be found only in the decisions of courts which are practically inaccessible to him" (1886; p. iii). In 1881, the Michigan Association of Surveyors and Engineers formed a committee to write a manual of instruction on the duties and responsibilities of surveyors and the legal documents governing land surveying practice. "Bellows and Hodgman," and later "Hodgman," were the products of the materials gathered. 134 pages of "Hodgman and Bellows" addresses land surveying practice (in Michigan). It was Justice Cooley's thoughts presented in 1881, and expanded in 1883, that set the stage for the textbooks on land surveying that are available today.

JUSTICE COOLEY'S REMARKS

The opening paragraph of 'Cooley' is the most important pronouncement. These opening sentences state the underlying philosophy and conduct that a land surveyor should utilize in practicing the profession. Without these attributes, the land surveyor could encounter unforeseen difficulties that could result in an adverse solution.

From this opening statement, Justice Cooley proceeds to develop the ideas and indicate their application to the existing (then) practice of land surveying. The first surveys in Michigan were Aaron Greeley's surveys of the French land claims in Detroit (commenced 30 January 1808). The actual surveys of the sectionalized portion commenced with a contract issued by Edward Tiffin to Alexander Holmes dated 18 April 1815. A second contract was entered into with Benjamin Hough and dated 12 October 1815. The surveys would continue until the last contract was issued in April 1852. After that period, minor contract surveys were executed to address minor omissions found in the earlier work.

Cooley's writing is clear, concise, and factual. Although not a surveyor, Cooley clearly understood the Michigan land surveying problems. He recognized the deficient quality of many of the original contract surveys and some real property subdivisions. He did not castigate the earlier surveyors, but

Michigan.

Cooley commenced with the fundamental legal tenet that the original lines and monuments must hold -no matter the amount of 'error' or deviation from the theoretically prescribed location. It should be stated here that the description of reestablishing section corners is based upon Michigan statute (1869), and not on *Restoration of Lost and Obliterated Corners* (1883).

Cooley's four precepts about "extinct corners" are not pragmatic legal verbiage, but articulate rhetoric. The lay person (non attorney) can comprehend the precepts and the technical/legal issues. The Michigan land surveyor must understand these principles because they override the GLO/BLM philosophy on "lost and obliterated" comers for all lands that have been patented. Land surveyors in other states could be governed by the "extinct corner principle" if court decisions elsewhere have been written and sustained through the appellate process.

Cooley continued his dissertation with a number of general, but practical, illustrations of faux pas. He did not clutter the document with bureaucratic legalese.

For a document of such brevity, it contains much useful information. In this brief document, the land surveyor will find a wealth of information incorporated in a broad spectrum statement of the duties and responsibilities of land surveyors. [Remember, in 1881/1883, land surveyor registration was over two decades in the future.]

Little analysis of Justice Cooley's paper has been written. Numerous writers have referenced the paper, but have not delved into the document. Recently, an in depth discussion has been published. In the sixth edition of *Clark On Surveying And Boundaries*; Walter G. Robillard and Land J. Bouman wrote an excellent commentary and analysis of Cooley's paper §§4.18; pp 109 - 1151. The authors have commented upon earlier interpretations, and have presented a candid discussion of the arguments and counter arguments for various points of Cooley. This analysis is for both attorneys and land surveyors. Although land surveyors have accepted "Clark" as a principal reference for over seven decades, the work is an invaluable reference to the legal profession.

Cooley is not "light" reading, but a well organized and thought out treatise, which became a foundation for land surveying practice. Reading the paper is not an academic exercise, but should be mandatory for all professionals. It is interesting to note that the philosophy set forth in Cooley is equally applicable to the other design professions (engineering, architecture, and landscape architecture).

Thomas Cooley's paper is not a time-dated document stating era-specific principles and doctrines. The document is not late 1870's early 1880's pronouncement, but a philosophical statement of the land surveyors' role in boundary determination and boundary retracement. Justice Cooley's thoughts from eleven decades past are not solely for his era, but a comprehensive philosophical statement of

EDITORIAL POTPOURRI

• **NEW PLSW MEMBER** - PLSW's newest member is Marshall Lindeen of Rawlins. Marshall is a new registrant. In addition, R. David Rux of Laramie joined PLSW as an associate member. Welcome to PLSW.

• **PLSW MEMBERSHIP** - Your assistance is requested. Recruit a new member today. An application is included in this issue.

• **SUPPORT OUR ADVERTISERS** - Advertisers fees help make this publication possible. Please support them.

• **LOCAL PLSW NEWS** - Send us a summary of your chapters activities or other related activities for publication. The deadline for the next issue of *Lines and Points* will be 17 MAR 1995.

• **PLSW BOARD MEETINGS** - The next meeting of the Board of Directors will be held at the annual WES convention in Cheyenne. Contact your director for the time and place. All members are welcome. A preliminary agenda is included in this issue.

• **BRONZE RAFFLE** - The Board of Director's purchased the bronze statue "Mapping the Frontier" by Ken Payne. A photo of the statue was presented in the previous issues of *Lines & Points*. Your director has raffle tickets for you to buy and sell.

• **LINES AND POINTS FAX** - The *Lines and Points* fax number is 307-235-5604 or 307-235-8184.

• **75th WES ANNUAL CONVENTION** - The annual convention will be held on February 9, 10, 11, and 12 at Little America Motel in Cheyenne. Milton Denny will conduct several interesting workshops. If you have not received registration information contact Martin Pedersen at Box 193 Rawlins, WY 82301 (307) 324-5262. A preliminary agenda is included in this issue.

Front Cover Artwork

by

Larry T. Perry, P.L.S.

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

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

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Deadline for next issue — 17 MARCH 1995

WES - 1995

ANNOUNCING THE 75TH ANNUAL WYOMING ENGINEERING SOCIETY CONVENTION.

The dates are from February 9-12, 1995 at Little America in Cheyenne, Wyoming. So ☐ your calendar and set aside these dates for attending this wonderful event with it's usual agenda of quality seminars and vendor displays for engineers and surveyors alike. In addition, you will find an enjoyable schedule of social events and other activities, featuring the Wyoming Engineering Society Scholarship Awards and the president's Project of the Year Award. For additional registration information contact:



Mr. Martin A. Pedersen, Sec.-Treas.

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WYOMING ENGINEERING SOCIETY

75TH ANNUAL CONVENTION, LITTLE AMERICA MOTEL, CHEYENNE, WY

Preliminary Agenda

Thursday February 9, 1995

- 9:00-Noon ASCE Seminars*
- 9:00-Noon "Maintenance of Small Roads" Gene Calvert, Wyo Tech Transfer Center*
- 1:00 WACERS Meeting
WACES Meeting
PLSW Annual Meeting
- 3:00 WSPE
- 4:00 ASCE
- 4:00 WACES/WDOT Joint Committee
- 6:30 Attitude Adjustment, Dinner and Entertainment

Friday February 10, 1995

- 8:00 Exhibits Open
- 9:00 Opening Session: "Business in Wyoming", Invocation, Welcome
- 9:15 "Things That Sparkle in Southern Wyoming" Potential for a diamond industry - Dan Housel
- 9:15 "Whereat, Wherefore, and Whereto" Information sources for the surveyor - Herb Stoughton***
- 10:05 Coffee Break — Exhibits
- 10:30 "Proposals and Presentations" — Milton Denny**
- 10:30 "Life Cycle Costing of Concrete and Asphalt" — Claus Smith, Dacotah Cement*
- 10:30 "History of the Public Land Survey in Wyoming Through 1910" — Herb Stoughton***
- 11:50 Lunch
- 1:00-2:30 "Dealing with Governmental Paperwork" — Milton Denny**
- 1:00-2:00 "Quality Concrete" - Specifications, admixtures, testing — William Rossi, Dakotah Cement*
- 2:00-4:00 (Section Subdivision — Basics and Fractional Parts) — Jim Claflin, BLM. (Continued Sat. morning. Attendees need calculators and drawing material)***
- 2:45-3:00 Coffee Break and Exhibits

- 3:00 "Underground Coal Gasification and its Potential for Wyoming" — Burl Davis, Rawlins CCUCG
- 4:00 Exhibitors Beer Break
- 5:30 Drawings
- 6:30 Attitude Adjustment, Dinner and Entertainment

Saturday February 11, 1995

- 8:00 Exhibits Open
- 8:00-10:00 "Section Subdivision" (continued) — Jim Claflin***
- 8:30 "Pros and Cons of Being in Business" — Milton Denny**
- 10:00 Coffee Break and Exhibits
- 10:30 "Working with New Technology" Data Collectors - Job Site Safety — Milton Denny***
- 10:30 "Wold-Trona Benetron Project" — Conrad Houser, Gene George
- 12:00 Lunch
- 1:30 "State Board Update and Continuing Education" — John Steadman
- 3:00 "Annual Business Meeting - Wyoming Engineering Society"
- 6:30 "75th Annual Convention Awards Banquet and Recognition of Past Presidents"

Sunday, February 12, 1995

- 9:30-11:30 Brunch with Wyoming Legislators

- * Engineers Continuing Education
- ** Engineers and Surveyors Continuing Education
- *** Party Chief, LSIT, Surveyor Training and/or Continuing Education

SPOUSE PROGRAM

Friday February 10, 1995

- 10:00 Tour of Old West Museum
- 12:00 Lunch, Cheyenne Country Club — Program by Paula Taylor, Women's Clothing in the 1800's

Saturday February 11, 1995

- 9:30 Pastry Demonstration and Tasting by the Pastry Chef at Little America

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Wheeler's surveys in Wyoming were not limited to the determination of astronomic positions at Cheyenne, Laramie, Fort Steele, and Green River. Additional astronomic determinations were observed with a sextant. Geographic positions of the flagstaffs at Forts Sanders and Steele were determined by triangulation from the neighboring astronomic stations. Additional triangulation was executed to control the mapping.

The second, and equally important, aspect of Wheeler's work was the determination of altitudes by means of meteorological observations (also known as barometric hypsometry). Lt. R.L. Hoxie supervised the observations and reduction in Wyoming. An excellent description of the employed procedures is Part II of *Report Upon United States Geographical Surveys West of the One Hundredth Meridian ... Volume II - Astronomy and Barometric Hypsometry* (1877). The fundamental technical reference used by Lt. Hoxie was Major R.S. Williamson's *On The Use Of The Barometer On Surveys And Reconnaissance* (New York: D. Van Nostrand, 1868).

The report on hypsometry is an excellent presentation of meteorological theory, analysis of instrumentation, and reduction of observations. Graphs were published of diurnal barometric curves, diurnal temperature, mean differences wet and dry bulb thermometers, diurnal force of vapor, and relative humidity. Although barometric hypsometry is no longer a viable process of determining elevations, study of this report, Williams' book, and Dr. Grove Karl Gilbert's *A New Method Of Measuring Heights By Means of the Barometer* (US Geological Survey, 1882) are the definitive works on the subject. Gilbert worked on the Wheeler surveys, and undoubtedly employed Wheeler's data in writing his treatise.

As mentioned earlier, the Wheeler surveys were solely for satisfying the Army's needs. The Indian threat in Wyoming was real at the time of Wheeler's assignment. It was not until 26 September 1876 [Stat. L., XIX, 254] that the remaining lands in Wyoming were ceded by the Indians (based upon terms in the Treaty of Fort Laramie, 29 April 1868). The military nature of the Wheeler's surveys is apparent when reading the reports submitted by the Surveyor General of Wyoming (Silas Reed) for the fiscal years ending June 30, 1871, 1872, 1873, and 1874, make to mention of Wheeler's presence in the Wyoming Territory. It is also

interesting to note that the astronomic stations at Cheyenne and Laramie were not placed on the military reservations at Forts D.A. Russell and Sanders, but near the railroad stations in the heart of the cities.

Thomas M. Cooley's The Judicial Functions Of Surveyors

HERBERT W. STOUGHTON

INTRODUCTION

Judge Thomas M. Cooley was a member of the Michigan Supreme Court. At least twice, Justice Cooley spoke at annual meetings of the Michigan Association of Surveyors and Engineers about judicial functions of surveyors. Two different versions of "Judicial Functions Of Surveyors" were published in *The Michigan Engineer* [1881, pp 18 - 25 and 1883, pp 112 - 122]. The often cited version is the 1883 version. The paper was widely acclaimed immediately. By 1886, the paper was reprinted, without any editorial changes, in *The Theory And Practice of Surveying*, by John Butler Johnson (Appendix A; 1886: John Wiley & Sons) and *A Manual of Land Surveying* by Charles Fitzroy R. Bellows and Francis Hodgman (pp 349-364; 1886; Register Printing and Publishing House). The essay was reprinted in *Surveying and Mapping* (Vol. XIV, No. 2; pp 161-168) and *Evidence and Procedures for Boundary Location*, 3rd edition (Brown, Robillard, and Wilson; 1994, John Wiley & Sons; pp 491-501).

Little has been written concerning Justice Cooley and the origins of his paper. The last GLO contracts in Michigan were issued in 1852 (Upper Peninsula). Between the 1830's and 1870's, Michigan was the scene of extensive lumbering operations which destroyed significant portions of the supporting evidence (bearing and witness trees, etc.). After the American Civil War, considerable settlement of the logged lands took place, and the resulting land surveying problems began to arise.

From the late 1840's, land surveyors in Michigan, and elsewhere, encountered problems in retracing the original GLO surveys. The National Archives contains a considerable correspondence between surveyors and GLO officials concerning retracements. In the General Instructions for executing GLO contract surveys in Michigan, the Surveyor General recommended that Abel Flint's *Treatise On Surveying* be read by the deputy surveyors. This work contains nothing concerning the legal aspects of land/boundary surveying. The treatise only discusses the mathematical elements of surveying.

After the American Civil War, there was only one land surveying book in print - *A Treatise On Surveying ...* by William Mitchell Gillespie. This work did not contain any legal aspects of land surveying. Besides the surveying and mathematical topics, nineteen pages address the surveying

(Continued on Page 18)

Learn From Our Expert Seminar Leader — Milton E. Denny, PLS

Milt Denny is president of C.E.D. Technical Services, a firm located in Tuscaloosa, Alabama, providing nationwide marketing and management services to the surveying and mapping profession. He is a registered surveyor in five states, and author of the manuals "Marketing Professional Services in Land Surveyors" and "Photogrammetrists and Hazardous Waste Acronyms". Milt has also been involved in several surveying and mapping associations and has held many key leadership roles.

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The Wheeler Surveys In Wyoming 1872 - 1873

HERBERT W. STOUGHTON

George Montague Wheeler graduated from the U.S. Military Academy (West Point, N.Y.) sixth in his class on 18 June 1866. Records state that he ranked first in philosophy and mathematics, second in engineering, sixth in mineralogy and geology, seventh in Spanish, eighth in ordnance and gunnery, ninth in ethics, and twenty-first in cavalry. For the remainder of his military career he was assigned surveying, mapping, and engineering duties.

General A.A. Humphreys, Chief of Engineers, realized that the 'geographic surveys' of King, Powell, and Hayden did not satisfy the Army's needs and requirements. The Army required maps "that stressed human developments, mines, farms, villages, roads, railroads, dams. It needed maps which gave strategists 'a thorough knowledge of the conformation, the obstacles and resources of a country.'"

As part of the survey, Lt. Wheeler observed astronomic positions at selected sites in Wyoming - Cheyenne (1872); Laramie (1872); Fort Steele (1872); and Green River (1872 - 73). The astronomic observers and computers were Professors R.A. Rodgers and T.H. Safford; Dr. F. Kampf; and Messrs. E.P. Austin, John H. Clark, William M. Maryatt (also spelled Marryatt), and William A. Rogers. The astronomic survey station/pier was a 6' x 2' x 2.5' granite or sandstone monument (illustrated in Figs. 1, 2, and 3 [from Wheeler's official report]). Latitude was determined employing Andrew Talcott's method. Longitude was determined employing telegraphic time signals from the "observatory of the president of the Mormon Church" (Salt Lake City, Utah).

The locations of then astronomic stations are depicted on the accompanying maps of Cheyenne, Laramie, Fort Steele, and Green River [published in Wheeler's final report]. Notice that at Laramie, Fort Steele, and Green River a meridian and mark was established. Also, at Laramie, Fort Steele, and Green River the astronomic station was the "observing block," but at Cheyenne it was the "astronomic monument." In Cheyenne, if the railroad station of 1872 was at the site of the current railroad station, then the astronomic site appears to be at the southeast corner of the intersection of Lincoln Way and Bent Avenue. The site of

the station in Laramie was east of the original hospital.

Two meridian marks (north and south) were established at the Laramie site. Fort Steele straddled the Union Pacific Railroad, and the site was south of the tracks. Also, the meridian mark was south of the astro monument. At Green River, the site was northwest of the railroad station ["astronomic pier is in the centre of the settlement, near the railroad depot, 160.4 feet north and 213 feet east of the nearer rail of track, which here runs to the northwest. Its position is ascertained by direct measurement to other objects in the vicinity, and by triangulation with ten sharp and well defined rocks on the neighboring hilltops and bluffs."]. The description of the station at Green River is the only one stated for the Wyoming sites in Wheeler's final report. There is a possibility that the Fort Steele site is recoverable. All the remaining sites have been developed.

The following table lists the astronomic latitude and longitude (and associated probable errors) and elevations.

Table					
Site	Latitude	p.e.	Longitude	p.e.	Elevation ft.
Cheyenne	41 07 46.62	0.08	104 48 51.30	0.25	6,041.0
Laramie	41 18 51.80	0.08	105 35 33.60	0.12	7,123.0
Fort Steele	41 46 40.24	0.05	106 56 48.80	0.51	6,840.0
Green River	41 31 38.12	0.10	109 28 06.57	0.40	6,096.6*
					6,140.0**
*Barometric					
**RR levels					

Notice that the probable errors for the longitude determinations are larger than the corresponding latitude determinations. The reported probable errors are 0.6745 times the standard deviation. The current (1990's) evaluation criteria states that the standard errors as the standard error in latitude and the standard error of the longitude as the standard error of the observations multiplied by the cosecant of the latitude. Furthermore, determination of astronomic latitude is relatively insensitive to the determination of time. However, for longitude determinations there is a one-to-one relationship between the uncertainty in time and longitude (disregarding all other error sources). It should be noted here that prior to the invention of the astrolabe and the development of the charged transfer device eyepiece for the astronomic theodolite, the observations for latitude and longitude were performed separately.

The magnitude of the probable errors of longitude with respect to the probable error of the corresponding latitude is not excessive (for the era). The reported probable errors for these stations are for the precision of the observations and not for the absolute astronomic position. The mean standard deviations for the four Wyoming astronomic stations are: latitude: +/- 0.11 (3.54 m.); and longitude: +/-0.47" (+/- 11.00 m.). This was excellent work for that era.

(Continued on Page 17)

1994 ANNUAL STATE MEETING

FEBRUARY 3 & 4, 1994 - RIVERTON, WYOMING

"The minutes of the 1994 annual state meeting are being printed as a draft for distribution to all members. They will be submitted for approval at the 1995 annual state meeting on February 9 at Cheyenne."

1. LOCATION AND DATE - The 1994 annual state meeting of the Professional Land Surveyors of Wyoming, was held in the Uranium Room of the Holiday Inn in Riverton, Wyoming, on Thursday, February 3rd, and Friday, February 4th, 1994. The meeting followed a day-long seminar titled "Corner Evidence Analysis" by Dennis J. Mouland, PS, of Cadastral Consultants, Inc., and was held in conjunction with the 74th annual Wyoming Engineering Society convention.

2. SUMMARY - A summary of these minutes has been printed in the official publication of PLSW, "Lines & Points", Volume 6, number 1, dated 14 March 1994.

3. CALL TO ORDER, AGENDA REVISION AND ATTENDANCE - The meeting was called to order by President Robert L. St. Claire at 4:25 P.M., and began with agenda revision and adoption of the revised agenda. The signed attendance list shows thirty-four members and ten affiliates present. Honorary members Paul Scherbel and Wes Reed were in attendance.

4. CORNER RECORDATION REPORT - Harvey Copeland, chairman of the Certified Land Corner Recordation Committee, announced that Dr. John Steadman, president of the State Board of Registration for Professional Engineers and Professional Land Surveyors, was present, and was asked to give his committee report at this time. Harvey reported that a three-hour meeting yesterday (Wednesday), moderated by Dr. Herbert Stoughton, resulted in a "State of Wyoming Corner Record" form to replace the existing Certified Land Corner Recordation Certificate. Three "cut and paste" draft copies of the proposed form were distributed for inspection by the membership. Harvey stated that Dr. Stoughton is requesting our Board of Directors approve this version in order that he may present it to the state board of registration at its March meeting in Cheyenne.

5. INTRODUCTIONS - President St. Claire introduced the officers present at this meeting including Vice President Chris D. Hamilton and Secretary / Treasurer R.L. "Rick" Hudson at the front table.

6. LAST CALL FOR BALLOTS - A last call for ballots was made and Teller Stanton J. Abell, Jr., was acknowledged by Bob.

7. MINUTES - The minutes of the 1993 annual state meeting, held in Laramie on February 4th of last year, were discussed by Rick Hudson. Motion to approve said minutes was made by Kevin Jones, seconded and carried.

8. TREASURER'S REPORT - Hudson, as Treasurer, distributed copies of the treasurer's report which consisted of the following items; 1993 Itemized Expenses and 1993 Balance Sheet, both of which are attached to these minutes. Member Ray Connin raised a question regarding the purchase of the GLO plat file for \$800 (Item #30 on the balance sheet). Bob and Rick explained the circumstances of the purchase at which time Herb Stoughton returned to the meeting and gave a more complete explanation since it was he who had located the file and made the purchase on behalf of PLSW. He further reminded us that \$500 had been previously budgeted for "archive documents" and

gave a description of the file cabinet and contents (26 drawers each containing 100 - 125 plats, including full coverage of the Wind River Meridian). Herb went on to say he has located the annual reports, from approximately 1870 to 1900, by the Surveyor General of Wyoming. A motion was made by Paul Scherbel wherein Surveyor Scherbel, Ltd., would purchase the file from PLSW and seconded by Marlowe Scherbel. Discussion followed, with no vote. Paul Campbell then made a motion to authorize the original purchase by PLSW which was seconded and carried by unanimous vote.

9. BUDGET - Copies of the 1994 Budget Worksheet were distributed, together with copies of a chart showing sources of income and expenses for 1993. Hudson stated the budget had been approved by the Board of Directors at the meeting last night and authorized for presentation to the general membership. Paul Scherbel moved for approval of the budget as presented. His motion was seconded and a general discussion followed. Bob mentioned the Mouland seminar and Herb stated the seminar, if attended elsewhere, would have cost each attendee at least \$100. More general discussion followed by Director Paul Blough asking to "call the question"; wherein the motion to approve the budget was unanimously carried. 10. COMMITTEE REPORTS - Committee reports were presented orally and intentionally kept short. Written versions of the reports were available during and after the meeting at a side table. The following committees, with chairmen noted, submitted reports:

A. Audit - Finance (Becky J. Braman) - Written report indicating our financial records appear to be in order, much to the relief of the treasurer.

B. Membership (Stan Abell and Rick Hudson) - Written report stating our membership had increased by three members and five affiliates during the year; also stating that as of 1 February we had 84 paid members, nine honorary members and 15 paid affiliates.

C. GPS "Supernet", Professional Practice, Education and Manual of Practice Revision (Herb Stoughton) - Herb presented oral and written reports of each of the committees; as follows: 1) GPS "Supernet" - Briefly discussed NAD 83 and NAD 83/93; also HARN. Requested dissolution of the committee since its mission has been completed; granted by general consent. 2) Professional Practice - Written report. Herb stated he had reviewed the NCEES candidate handbook for possible inaccuracies and indicated candidates should use only the new book. He reported that there are currently seven versions of

Continued on Page 6

P.L.S.W. Scholarship Raffle "Mapping the Frontier"

Chapter directors have received raffle tickets and prints of the Bronze for distribution. Please consult your director for these tickets and let's have a successful raffle. Additional prints may be available by contacting John Steil at 307-634-7273.



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standards of practice that have been obtained and distributed to the board of directors for review. The matter of railroad abandonment was discussed and he stated that copies of the letter to the ICC are available to any interested members. Also mentioned was the 1979 Attorney General's opinion concerning professional corporations - Herb stating that letters relating to this matter are available from the board of directors (secretary). A written report (Draft) "Policy on Control Surveys for Utilities" is available for comment. Herb stated a written report concerning the Wyoming Land Surveyor's Council petitions is available; this matter will be fully discussed as an item of new business. Specific mention of "washout" surveys was made by him. The "Code of Ethics" draft dated 10 January 1994 is available. Herb asked for comments by 1 July on this item. Herb concluded his report by stating that two complaints are being investigated (no discussion at this time); discussed the matter of supervision of unlicensed employees and touched upon the recent U.S. Supreme Court decision regarding "expert witness" Education - Written report consisting of the course outlines. Herb also mentioned the seminar on GIS and GPS last December in Casper. 4) Manual of Practice Revision - Mentioned in passing, nothing specific to report.

D. Upon the conclusion of Herb's reports, Ray Connin requested that his letter regarding education be read before the membership. Bob stated that this is to be a matter of new business and will follow at the appropriate point in this meeting.

E. Legislative (John Steil) - Written report wherein mention was made of the passage of our state plane coordinate legislation and the failure of our recording of surveys bill during the last session.

F. Professional Awards (Bob St. Claire) - Bob acknowledged Bryce E. Rumph as the 1993 Honorary Member and presented him with a plaque and certificate.

G. Public Relations and Publications (Andy Shauers) - No report.

H. Scholarship (Martin Pedersen) - No report. Bob acknowledged Cevin Imus and John I. "Ike" Dolinar, Jr., as recipients of scholarship awards from PLSW. Cevin, who was present, attending Sheridan College; while Ike is in Laramie, completing his studies at the University of Wyoming.

I. History (Bill Braman) - No report.

J. Certified Land Corner Recordation (Harvey Copeland) - Previously given at beginning of meeting.

K. Handbook (Scott Pierson) - No report.

L. Newsletter "Lines & Points" (John Hibsman, Don Davis and Steve Strang) - Don gave an oral report discussing various aspects of the production of our publication and closed with a solicitation for material from individual members and chapters.

M. Save Our Surveyors "SOS" Honorarium (Pete Hutchison) - Bob reported for Pete and stated the corner forms for this year's competition are on display outside (of this meeting room); voting is by ballot and the deadline for voting is noon tomorrow.

11. DELEGATE REPORTS - Written reports are available at this meeting.

A. Western Federation of Professional Surveyors (Paul Reid and Scott Pierson) - Paul gave an oral report highlighting topics more fully discussed in his written report. He stated the conflict between "WestFed" and ACSM still continues to some extent and encouraged PLSW members to vote for NSPS candidates from the western part of our nation.

B. National Society of Professional Surveyors (Becky Braman) - Becky, as our governor to NSPS, attended both board meetings, one in New Orleans the other in Minneapolis. Her written report provides additional information about these meetings.

12. OLD BUSINESS - None.

13. ELECTION RESULTS - Teller Stan Abell returned to the meeting with the results of the election of 1994 state officers: Chris D. Hamilton, President; James D. Claflin, Vice President; R.L. "Rick" Hudson, Secretary/Treasurer. Stan stated that of the 107 ballots which were mailed, 68 were returned. He also stated there were three write-in votes for vice president and two write-ins for secretary/treasurer.

14. INSTALLATION - Formal installation of the new officers was conducted by John Steil. Following the oath of office, Chris presented Bob with a plaque as acknowledgment of his leadership of PLSW for 1993.

15. PRESIDENTIAL CITATIONS - Certificates were presented as follows:

A. By now Past President Bob St. Claire; to Herb Stoughton, Paul Scherbel, John Steil and Dick Kohler for their contributions to PLSW during the past year.

B. By Herb Stoughton, representing himself and the other past presidents; to Stan Abell, Sherman Allred, John Dolinar, Dave Hammond, Pete Jorgensen, Larry Perry, Wes Reed, Paul Reid, Paul Scherbel, Robert Jack Smith, John Steil and Herb Stoughton.

(Continued on Page 7)

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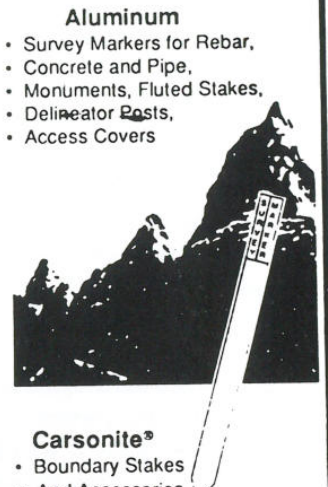
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Farson Survey, 1900

From the field notes of the subdivision of T. 24 N., R. 108 W., which is about three miles south and 12 miles west of Farson, Wyoming.

GENERAL DESCRIPTION

The land in this township may have, at one time, been covered with a luxuriant growth of grass, but at the present writing, that is the scarcest product of the soil.

Both the noble red man and the magnificent bison doubtless had many an exciting chase over its billowy stretches, owing to the number of arrowheads used by the former and the horns of the latter, scattered over it. But there are none here now.

It was doubtless covered with water at one time, as is demonstrated by the vast number of fossils found upon it, but I regret to say; that there is no water here now. Our parched lips and swollen tongues, emphasized this condition too often for our comfort.

There were a large number of trees growing on it, during the grassy, watery days of yore as we found a number of petrified stumps, but there are no trees here now. Our frugal noonday repast could not be partaken of, under the shade of a petrified stump and we were compelled to expose our handsome, bewhiskered, sun browned visages to the scorching rays of the meridian sun.

As we did not find any banana peelings, cocoanut bark, peanut shells or corn husks; it is fair to assume that the soil never was fruitful or productive. In fact, it is not now.

Indications point strongly to the fact, that it was adapted to neither horticulture of floriculture. We found no signs of carnations, roses or honeysuckles. We occasionally stumbled over a protruding root but doubt that they ever belonged to the grapevine.

This may have been a paradise for birds and bees not that we found any vestiges of antiquated aviaries or apiaries or any other signs of bird or bee life, but they may have winged their flight across the township. However, there are none here now. A meadowlark did warble his lay on a twig of rabbit brush and then disappeared, that is the lark, the rabbit brush remains as proof of my story. While animal and bird life seem to have become extinct here, we are not entirely devoid of live companionship. Horned toads, scorpions, centipedes and many other like charming bed fellows are quite plentiful.

Nature at the present has been niggardly in distributing shade trees and shrubbery, but while there are no sweet peas, gladiolas or lemon verbena, the beautiful white and sweet sage and the prairie cactus abound. If perchance we failed to notice the latter in perambulating about, and our foot came in contact with it, I have heard other names applied to it, than beautiful. As one pursuing sedentary habits would avoid a tack on a chair, so we, whose habits are of a peripatetic nature are cautious of the sharp needled points of the cactus.

Taking it all and all, however for some unaccountable reason sheep manage to exist here in the winter time and that is all there is of it, excepting a few scattering agates and topaz.

Signed Edward F. Stahle, U.S. Deputy Surveyor — 1900

Submitted by Paul J. Fisher, Cadastral Surveyor, Wyoming State Office.

LETTER TO THE EDITOR

I wish someone would get their mailing address corrected up! In August, 1992 I changed my address from Casper to Arizona and had been getting my magazine and other correspondence in Arizona. In July, 1994, due to new addressing by the county, I sent in a change for my new address. I just received my July issue of L&P, addressed to my old P.O. Box in Casper.

The magazine is really the only contact I have with what is going on with P.L.S.W. and items of interest other than the State Board of Registration newsletter. Even though anything critical, generally is printed in the newsletter (3 or 4 months later and after the fact) it still gives me some insight into events pertaining to the state. I think the chapter director should push through with the P.L.S.W. Board of Directors to issue, in a timely manner to all paid membership (especially those out of state), minutes of the board meetings and other pertinent information and not wait until it is published in L&P, 3 or 4 months later.

I would appreciate something more for my dues of \$75 (which I thought was an outlandish increase in dues without any prior notification) than just a magazine!

Thanks,

Leonard Dowdell L.S., and charter member of P.L.S.W.

Editor's Note: The L&P mailing list is continually undergoing change. This situation was an oversight and has been corrected. If other members have problems with their mailing, please notify the staff at P.O. Box 904, Casper, Wyoming 82602, or by FAX at 307-235-5604.

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LETTER TO THE EDITOR

Dear Editor:

The voluntary reporting form and continuing professional development concept is a bunch of malarkey. There has never been any sensible reason why this concept is being pursued, other than to benefit the educators.

Why is there going to be another so called public hearing on this?? the hearing held in Cheyenne on the 9th of September 1991 should have been explicit enough for them to realize the registrants and firms are against this. The Board apparently did not want to listen to any practical reason to forget this continuing education farce. At the time I was there, not one spoke in favor of this proposal to impose upon the registrants such ridiculous requirement in order to maintain the renewal of their license under the guise of protecting the public. My feelings and those of others there, were that for the Board of Registration to continue to pursue this is utter stupidity, in that it will be a costly measure to both the registrant and the Board.

It will also result in the closure of many businesses and the loss of many jobs for those subordinates employed by those firms. Many of the registrants will not be able to afford the exorbitant costs and time away from their job to attend classes and seminars. Estimated costs for an individual or a firm to meet these requirements were \$8,000 to \$30,000 a year.

The Wyoming Board newsletter issued after this hearing was completely misleading and a false reporting of what transpired, saying there was a favorable response. This was apparently based on what the proposers and the educators pushing for this want everyone to believe.

Having spent 40 years in this so called profession of surveying retracing bogus and corner cutting methods of surveys performed by many of the so called educated by college degree or programs individuals, makes one wonder why should we put more of them out there. Many of these are performing surveys as a sideline or a moonlighting operation.

The ones that need the education is those that we provide our services to, before imposing more burden on the professional. The public or clientele that we provide our services to need to be educated as to what a survey is, what needs to be done to provide the survey for them and that a properly executed land survey is one of the most important investment they will make or have need of in their lifetime and not some unnecessary evil that they have to have to satisfy some title company or other entity.

Before adding another costly burden on the already under compensated land surveyor, the main concentration should be to eliminate the bidding process to obtain a project for a low cost. Until this is done, all the required degrees and mandatory continuing education is not going to do one thing to benefit the image of a land surveyor in the eyes of the public, or to those that their service is provided to.

This concept is only going to do one thing for the land surveyor and that is to cost him more to operate, exist or stay in business.

I would advise you all to think long and hard about this. Remember your future to be able to continue in business or to just be able to maintain your professional license is at stake.

I whole heartedly agree with an article in *Lines & Points* that stated "if the educator types that are pushing for this continuing education concept want to keep their license, they should have a mandatory continuing practical field experience requirement imposed in order to maintain their license." Teaching

should be 100 hours of practical experience under the direct supervision of a licensed and practicing land surveyor with units earned for ability to be put in responsible charge to execute and complete a project in a professional and timely manner from field to office. Also the ability to meet with and deal with clients or potential clients should be another requirement.

Charles L. Dowdell, L.S.

SOUTH CENTRAL CHAPTER MEETING MINUTES

The meeting of December 14, 1994 was called to order by President John Hibsman. Those in attendance were Steve Strang, Don Davis, Jim Jones, Joe Popp, Bill Fehringer, Mike Blume and Richard Muscio.

Secretary Bill Fehringer gave a review of the March 15, 1994 meeting, no corrections or changes were noted. Bill also gave a treasury report of \$436.87 in the account.

Steve made a motion to waive the 1994 dues for the South Central Chapter. Don seconded the motion and it was passed unanimously.

John asked for input from the attendants for Chapter goals and objectives. Don suggested that we look into the possibility of the Chapter participating in the Wyoming Highway Department adopt a highway program. It was mentioned that there may not be any highway sections near the Casper area, Bill volunteered to contact the Highway Department and obtain more information.

Steve mentioned that he had spoken with the County Surveyor, Chris Asbury, about the Chapter monumenting the corners of Natrona County. Chris was going to check the county boundary maps and monuments and get back to Steve. There was much interest in this suggestion. Steve will follow up with Chris.

Don attended the Director's meeting in Cody on November 5th and gave a report:

- * Corner Recordations for the 1994 Save Our Surveyors (SOS) contest should be submitted to Pete Hutchinson by January 31, 1995.

- * The state representatives for PLSW met with the Land Title representatives in September to discuss the Record of Survey Bill. They did not reach an agreement for support of the Bill.

- * HARN data is now available. Ron Regan has the information

- * The State Convention will be held the weekend of February 9, 1995 in Cheyenne. A preliminary schedule of events will be published in the upcoming issue of *Lines and Points*.

- * The state board of directors of PLSW purchase the bronze statue "Mapping the Frontier" by Ken Payne. Don showed a video which showed Mr. Payne working on the statue and explaining its meaning and significance to the surveying profession. A maximum of four hundred raffle tickets will be sold for \$25 each and the bronze work will be given away in 1996. It is an impressive work depicting the important role surveyors played in mapping the frontier. We encourage all members to support this effort when the time comes.

The next meeting of the South Central Chapter of PLSW will be held on January 18, 1995 at the office of Worthington Lenhart and Carpenter at 200 Pronghorn.

16. RECESS - A motion to recess until 7:00 A.M. tomorrow, Friday, was made and carried at 6:35 P.M.; this being necessary because of prior reservations for the meeting room.

17. RECONVENED MEETING - The meeting was reconvened in the Council Room on Friday, February 4, 1994. President Chris Hamilton called the meeting to order at 7:15 A.M. The attendance list shows twenty-six members and three affiliates were present.

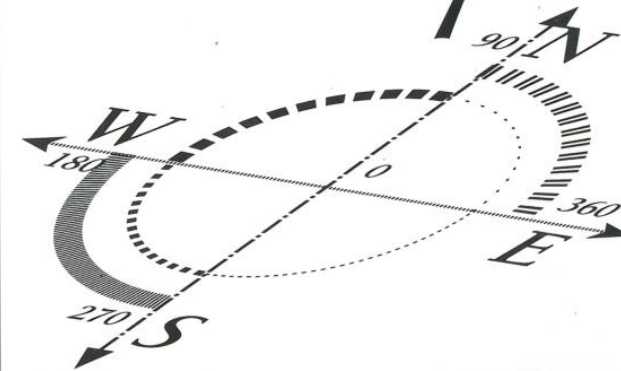
18. NEW BUSINESS - In altered sequence from that shown on the revised agenda.

A. WES Project of the Year - John Steil announced his desires for input from around the state on entries for the Wyoming Engineering Society Project of the Year in the coming year. All members were encouraged to spread the word on this competition.

B. Alleged PLSW Criticism of UW Course - Martin Pedersen and Ray Connin. This matter involved the alleged PLSW criticism, to the University of Wyoming, of the "Survey Boundary Control and Legal Principles" teleconferencing course and the instructor, Ray Connin, by Martin Pedersen. Martin and Ray were both in attendance. A letter from Ray, on Associated Land Information Services, Inc. letterhead and dated 16 December 1993, is attached to these minutes. Martin stated he had inquired as an individual Land Surveyor, not as a representative of PLSW; that he had since spoken to Art Boresi, of the university, and that he (Art) had no knowledge of any cancellation of the surveying program as indicated by Ray during this meeting. Member Don Schramm spoke on the importance of educational programs. He stated he has taken various courses taught by Ray, and Rod Skaggs, and did not find anything objectionable. Ray stated that he was willing to resign as instructor of the course; or have Martin as a co-instructor; finishing his delivery with an expletive upon which Chris ruled him "out of order". Member Scott Scherbel asked for background information on this situation at which time Chris related the series of events which led to the present confrontation. A lengthy general discussion followed. Paul Scherbel asked for background on teleconferencing procedures and materials. Ray responded by describing the prerecorded video tapes, textbooks, phone bridge, homework and exams that make up the course. He cited, as an example, Paragraph 6-15 "Corner Evidence" of the Manual of Surveying Instructions. Member Bob Chilcott offered comments as a student presently taking Ray's course. More general discussion. Chris summarized the situation as follows: 1) PLSW may have erred by not approaching Ray first; 2) Neither Martin nor PLSW erred by making an inquiry; 3) PLSW fully supports continuing education efforts and programs by the University of Wyoming. Member Lloyd Baker moved that PLSW should send a letter to UW stating our continuing support of continuing education programs; carried. Member Max Carpenter stated that his (Northern Wyoming Community College / Sheridan College) engineering and surveying technology program could be terminated. His letter, dated February 1, 1994, is attached to these minutes. He asked individual members to send letters of support to Dr. Betty Stevens at Sheridan College. Kevin Jones asked for better "check and balance" procedures regarding communications by PLSW members in official capacities. Ray stated he will resign (as a UW instructor) unless he has the support of PLSW at this meeting - no formal action taken.

C. Scanning of the PLSW Handbook - Rich Greenwood

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of the PLSW Handbook, a/k/a "the big red book", have been digitally scanned by a firm in California.

D. Wyoming Land Surveyor's Council Petitions - (This matter came to the attention of PLSW late last spring and involves the submission of eighteen petitions to the State Board of Registration for Professional Engineers and Professional Land Surveyors, SBRPEPLS, by WLSC. PLSW was formally asked to comment on the petitions by the state board of registration and has done so by letter dated 6 December 1993 and attached to these minutes.) Ray Connin, as President of WLSC, was present. Copies of his letter, dated 16 December 1993, were distributed; said letter being attached to these minutes. Ray stated that some petition items are "testing the waters" and submitted to get "action and reaction"; and further stated that several of the items had been brought up at PLSW meetings over the past two years with no action being taken. Scott Scherbel asked Ray for additional information about WLSC; "Who are you?". Ray stated that membership information is not public at this time, and further declined comment regarding even the number of members. He did inform us, however, that WLSC will support candidates for the SBRPEPLS and will sponsor legislation. Marlowe Scherbel asked for clarification of the reference, in Ray's letter, to the "direct violation of Section 2, Item 2 of the PLSW By-Laws."; at which point a copy of the By-Laws appeared and the appropriate item quoted for the benefit of all members "To cooperate with other organizations, public bodies, etc., in all matters of common interest which may arise from time to time." Returning to the original subject, the petitions, Kevin Jones stated that the matter had been discussed.

E. 1995 Vacancies on the SBRPEPLS - Ray Connin, apparently as a member of PLSW once again, stated that three vacancies will be coming up in 1995 on the state board of registration. He stated that action should begin at this time. Paul Scherbel, who currently sits on said board as the PLS member, stated that appointments are the choice of the Governor. Chris asked for volunteers for a "search committee". Kevin Jones cautioned against board of director (official PLSW) support of any particular candidate. Scott Scherbel stated that a notice of the vacancies should be printed in "Lines & Points"; Chris withdrew his request for volunteers and the editorial staff will prepare an appropriate notice to appear in our official publication F. Legislation - Member Paul Campbell asked how chapter members can assist the Legislative Committee regarding our continuing efforts for "Recording of Surveys" legislation. Chris, a member of that committee, and Chairman John Steil, stated that direct contact with title industry personnel and legislators is the most effective method. John stated that the president of the title association is opposed to our bill. It was agreed that PLSW will continue our efforts regarding this matter.

19. ANNOUNCEMENTS - PLSW is raffling a Gunter's chain at the convention, \$10 per ticket. Various items donated by the Wyoming Game & Fish Department, including hats and shirts, will also be included. Chris asked members to submit their fax numbers to their respective director so that information can be included in next year's roster.

carried at 8:35 A.M.-
Respectfully submitted to the general membership this 28th day of December, 1994.

PRESIDENT'S MESSAGE

The Wyoming Engineering Society convention will be here soon. Please call early for your Motel/Hotel reservations. The convention will be February 9 through 12 at Little America, Cheyenne, Wyoming. This year our continuing education speaker will be Mr. Milton Denny. His topic will be business, law, and contracts concerning the Engineering and/or Land Surveying professions. For those that are not concerned with this topic the PLSW is working to schedule a speaker for surveying topics.

The legislation committee, headed by Mr. John Steil, is working hard to find sponsors, and supporters outside our profession to assist the upcoming debate concerning our "Record of Survey" legislation. Please contact your State Representative of Congressman, local Realtors, title companies, and county clerks and assessors to inform them of this bill and ask for their support.

The vote concerning the purchase of the bronze sculpture passed. We have purchased this remarkable art piece titled *Mapping the Frontier*. The raffle tickets will be arriving soon to your chapter director. They will be handling out the raffled books to the members. If each member can sell at least five tickets, this project will be a success.

As we close 1994 and it becomes history, I would like to propose a new year's resolution for the PLSW. This profession will become more involved with the new advanced technologies. We have all seen the capabilities of GPS, computer software, one-man total stations, and GIS/LIS. Having been involved with this technology and seeing the advancement of RTK (Real Time Kinematic) I strongly believe our profession has two choices. One, to continue our resistance to change, or, Two, become involved and take control of this technology that has a great profitable future to our profession. As surveyors and professional business people this new technology has affected our practice already. The question and the PLSW resolution for 1995 set goals to become a leading partner of this new technology. This technology does not need us, but we need it to prevent our professional from becoming history.

I hope that this holiday season has been enjoyable to all. Let's wish our fellow competitors a great successful new year, remembering if they are busy most likely you will be too. I hope we all have enjoyed a good year in 1994, possibly learned something new and are willing to share our knowledge with others. I will be looking forward to meeting with you at the convention. Happy New Year PLSW!

Sincerely, *Chris*



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NEWS FROM THE BLM

Effective January 3, 1995, Dennis Bland and Marty Winemiller, long time BLM employees, retired. Dennis had 36 years of Federal service and Marty had 20 years of Federal service.

Dennis started with the BLM in 1958 in Utah and Nevada and transferred to California in 1969. In 1970 Dennis and his wife, Barbara, transferred to the "Queen City on the Plains," i.e., Cheyenne. Since 1983 Dennis has been the Office Operations and Review Section Chief in addition to other titles such as survey expert, the man with the answers, nice guy, etc. He plans to remain in the Cheyenne area with his family and become an active member of the Southeast Chapter of PLSW.

Marty started with the BLM in 1978 and has worked in survey records since 1981. She became known as the friendly, helpful voice people reached when they called for survey records. Marty and her husband, Jon, plan to remain in the Cheyenne area.

The BLM family wishes Dennis and Marty a long and happy retirement.

MARTY

Sometimes we don't
appreciate
the efforts of our spouses
Raising up our families
and cleaning up our houses

Listening to our fishing tales
our lullabies and lies
Taking extra special care
to make us home made pies

Earning extra money
when ours must go for bills
Listening to our troubles
and imaginary ills

Directing our social life
keeping us well fed
Believing in us no matter
what or whats not said

And then to top it off
through out the trying years
They find time to raise our
kids and pursue a full career

Marty raised three children
well, Jon helped a little too
But she was holding down
two jobs
doing what she had to do

Serving grouchy surveyors
from Rock Springs to
Sheridan
Adding that extra special
touch
any time she can

Working extra hours when
she's all worn out and tired
Because she has a job to do
not because it is required

That's why her reputation
proceeds her 'cross the state
From the private sector
to the public reprobate

They are going, to miss her
as we will, to be sure
Without her we will falter
simply striving to endure

But she's earned her
retirement
so Marty go for broke
God bless you mi amigo
from me and all these folks

by *Mick Kaser*



SO LONG, SURVEYOR

It's kinda like a heavy weight's
been lifted from his shoulders
He's glad to be retiring
but he's sad he's getting older

He doesn't shinny up those hills
like he did in Jackson Hole
Triangulate from Laramie Peak
monument on Ruby Knoll

It's been a good career
where else but in the West
Could he ever make a living
doing what he loved the best

Where else . . . the opportunity
to pull a survey chain
Across the Big Horn Mountains
or similar terrain

Where else would you see wapiti
or meander down the Snake
Or watch the Big Horns frolic
as you take a coffee break

Where else would you perch and wait
a top a tall Blue Spruce
Cause your survey was disrupted
by a ornery old bull moose

Where else could you get paid
for having all this fun
What others only dream about
you have already done

It's been a good career
you've made some real good mates
The jack wasn't all that good
but the benefits were great

We're going to miss your grin
and we'll miss a damn good hand
And we'll miss the job you've done
thank you . . . Dennis Bland

by *Mick Kaser*

HERB'S CORNER

The First General Land Office Surveys In Wyoming

Wyoming became a Territory by the Act of Congress 25 July 1868. Unfortunately, Congress failed to appropriate the necessary funding for the territorial government. It would not be until 2 March 1870 that Silas Reed, formerly Surveyor General of Illinois and Missouri [27 April 1841 to 12 September 1843] assumed the office as the first Surveyor General, Wyoming Territory. Prior to the Act of 25 July 1868, the General Land Office expressed an interest and actually performed surveys in Wyoming. In the Annual Report of the Commissioner for the Fiscal Year ending 30 June 1868 the Commissioner, Joseph S. Wilson, described the progress of the Union Pacific Railroad construction through Wyoming, and included a description of the country. Wilson included comments provided to him by the Surveyor General of Dakota Territory, William Tripp, that resources (funds) should be appropriated for surveys around Fort Laramie. A sum of \$15,000 was requested for the fiscal year ending 30 June 1869. Wilson's report continued with the complete field report of those parts of Wyoming along and south of the Union Pacific Railroad by Dr. Ferdinand V. Hayden.

The Surveyor General of Dakota Territory did not issue any contracts for surveys in Wyoming. Several surveys were executed for the military reservations in Wyoming, which were supervised by various agencies or Departments in Washington. These projects were the surveys of several of the military reservations, which were considered independent surveys. Subsequent GLO surveys would close onto the boundaries of these surveys.

The northern boundary of Colorado was designated as 41° north latitude, but the boundary would not be surveyed until 1873. The Surveyor General of Colorado, William H. Lessig, issued a series of contracts for the surveys in Colorado. Furthermore, Congress failed to make any appropriations for the survey of the northern boundary, and Lessig apparently had only an approximate idea as to the location of this boundary. Therefore, in 1867, '68, and '69 Lessig awarded five contracts that would straddle the Wyoming-Colorado boundary.

The first contract, No. 38, was awarded to William Ashley. Ashley performed a large number of surveys in Colorado in the 1860's, and was probably one of the four most active deputy surveyors of that era. He surveyed the 8th Guide Meridian for 24 miles, the Third Correction Line North westwardly for 30 miles, and the exterior township boundaries for T 12 N, Rs. 65 - 69 W. The second contract, No. 51, was issued to Cecil A. Dean for the Third Correction Line North between the Sixth and Eighth Guide Meridians. The third contract, No. 54, was awarded to Edward D. Bright for the subdivision of T 12 N, Rs. 65 - 69 W. The fourth and fifth contracts, Nos. 65 and 75, were awarded to Adams M. Fahringer for the exterior and subdivision of T 12 N, Rs. 62 and 63 W. These contracts were dated: No. 38, 20 June 1867; No. 51, 5 August 1868; No. 54, 10 August 1868; No. 65, 26 May 1869; and No. 75, 16 July 1869.

The information contained herein is now available in Wyoming. When researching this matter, conversations with several surveyors knowledgeable about the Wyoming surveys along the Wyoming-Colorado boundary indicated that there might have been some surveying done, but that it was limited to extension of the Eighth Guide Meridian from Colorado. My research indicated that both the Colorado and Wyoming State Offices of BLM had transferred their older records over to the National Archives, Rocky Mountain Region [P.O. Box 25307, Denver 80225]. Therefore, after I had received financial support from the Wyoming State Historical Society's Lola Homsher Endowment Fund for duplicating historic records pertaining to the Wyoming surveys, I visited the National Archives at the Denver Federal Center. During my first trip I inspected all the original township plats for T 12 N from the Nebraska boundary to the Utah boundary (Rs. 60 - 103 W). Between Ranges 60 and 69 West a number of the plats indicate that the entire township had been subdivided. The townships were Rs. 62, 63, 65, 66, 67, 68, and 69 W, which indicate that the contracts for the surveys were completed, even though within Wyoming. In 1874, the Surveyor General of Colorado authorized additional surveys be performed to close on the state boundary. A quick inspection of the plats from the Wyoming State Office reveals that surveys were made of the cited townships. Without studying the original field notes and the contracts and special instructions it is uncertain whether the original corners established by the Colorado deputy surveyors were retained. Copies of the aforementioned plats have been made and inserted into PLSW GLO plat files. Also, copies have been provided to the BLM Wyoming State Office.

With the exception of the surveys previously mentioned, no other township survey crossed a Wyoming boundary. Only along the Wyoming-Colorado boundary do townships cross the boundary. The GLO surveys along the Utah, Idaho, Montana, South Dakota, and Nebraska boundaries "close" on the boundary. Land surveyors working in T 12 N, Rs. 62, 63, 65 - 69 W must be aware that there could be a potential problem if lands were acquired from the Federal Government between the date of the original Colorado survey and the date of the resurvey under contracts and special instructions of the Surveyor General of Wyoming. Land surveyors working on surveys in these townships should ascertain whether the patent was issued under the original or resurvey plat. In all likelihood, no problems exist.

Herbert W. Stoughton 13 December 1994

BOARD OF DIRECTORS MEETING SUMMARY

The fall meeting of the Board of Directors was held on Saturday, November 5, 1994, at the Holiday Inn in Cody. The meeting was hosted by the Northwest Chapter; Kevin Jones, chapter Secretary/Treasurer having made the arrangements for the room and luncheon. All expenses were paid by the hosting chapter - Thank You Northwest Chapter.

The start of the meeting was delayed awaiting a quorum and was called to order by President Chris Hamilton at 1:04 A.M. with only five board members present.

Secretary Rick Hudson presented the minutes of the board meeting held in South Dakota on July 15th and led a general discussion concerning the draft minutes of the 1994 annual state meeting. Since these minutes must be approved at the following annual state meeting it was stated they will either be mailed to all members with the 1995 annual state meeting notice or will be published in the next issue of "Lines & Points".

Hudson, as Treasurer, presented the treasurer's report in the usual format; bank statement, expense sheet and balance sheet; with said report being approved by vote.

There were no NSPS and "WestFed" (WFPS) reports nor were there any committee reports.

The first item of old business concerned our purchase of the Ken Payne statue "Mapping the Frontier". Rick stated he had received a "yes" vote from five board members, a "no" vote from two, and no response from the remaining four. Chris stated that tentative delivery will be November 18th in Cheyenne. A general discussion followed wherein Director Don Davis offered the services of the South Central Chapter regarding printing of the tickets and promotional material. The board voted to issue 400 tickets at \$25 each. Member Kevin Jones suggested a full-size poster be prepared and distributed rather than shipping the actual statue around the state. It was agreed that the services of a photographer and an insurance agent are needed. Chris will contact John Steil to serve as chairman of a special "Statue Committee". The board voted to authorize a maximum of \$1,000 to fund marketing related expenses. Each director, and one other

member in each chapter, will be assigned to this committee. As a final item, it was decided the drawing will be held at the 1996 PLSW annual state meeting and that ticket purchasers need not be present to win.

The next item of old business concerned our proposed "Recording of Surveys" legislation. Chris gave an oral report and copies of John Steil's written report were distributed. Following a general discussion, it appears the retention of a "paid lobbyist" will be required if we are ever to see this item as a bill on the floor of the legislature.

The final item of old business was the review of the draft questionnaire prepared by Herb Stoughton's Professional Practice Committee regarding corner monumentation and recordation. The board reviewed and amended the draft and instructed Rick Hudson to return it to Herb for finalization and ultimate distribution.

New business began with the distribution of Pete Hutchison's report concerning the 1995 Wyoming Engineering Society convention. Milton Denny will be presenting sessions on business topics while Herb Stoughton will present sessions, perhaps concurrently, dealing with technical matters. A motion was carried wherein registration for all the Denny sessions will be \$25 for members, \$100 for non-members, with \$75 being credited toward membership upon approval of an application.

Copies of the proposed By-Laws amendment were distributed and discussed. This amendment pertains to the formation of new chapters and all directors are asked to discuss this matter at chapter level.

The matter will be on the 1995 ballot to be sent to all members in January.

Rick Hudson asked all directors to solicit input from committee chairmen regarding budget requests; it was agreed the deadline for budget requests will coincide with a special board meeting now determined to be necessary due to the light turnout at this meeting.

Don Davis asked if PLSW has taken a formal position regarding mandatory continuing education requirements; Chris responded by stating that we have not, as yet, issued any statement on the matter.

Those members present agreed that a special board meeting is necessary to finalize the budget, ballot and annual state meeting agenda. This meeting will be held in Lander on Saturday, January 14th, 1995, and will be hosted by the Central Chapter. Chris stated he will make the necessary arrangements.

There being no announcements, the meeting was adjourned at 2:48 P.M.

Dated this 24th day of December, 1994. Merry Christmas to all, and to all a good night.

*R.L. Hudson,
Secretary / Treasurer*

OBITUARY:

FLOYD C. CURTIS, L.S.

Our fellow surveyor, Floyd Curtis passed away on January 2, 1995 at his home in Casper. He was 68 and had fought cancer for some time.

Early in Mr. Curtis' career, he worked for the Wyoming Highway Department as a technician, surveyor and inspector. After 17 years with the highway department, he worked in Colorado and Wyoming for consulting engineers and contractors. One of his most notable assignments was that of field engineer for the construction of the then, new Town of Wright, Wyoming. After retirement, he performed periodic services on selected civil engineering projects for Hibsman & Associates in Casper, Wyoming.

**Recruit a New
Member NOW!**

1994 SEMI-ANNUAL REPORT TO THE NSPS BOARD OF DIRECTORS

PREPARED BY JOHN A. STEIL NSPS AREA 7
DIRECTOR October 7, 1994

Since the Spring meeting in Reno there have been no affiliate meetings for which I had been invited to attend.

Other Area 7 activities are as follows:

JOINT DEDICATION OF RESTORED MONUMENTS
SOUTH DAKOTA-WYOMING CORNER AND SOUTHEAST
CORNER OF MONTANA

Saturday, July 16, 1994, approximately 190 people were in attendance for the dedication of the restored monuments of the South Dakota-Wyoming corner and the Southeast corner of Montana (2 separate corners).

At 10:00 A.M. the dedication began with a welcome from the Mayor of Belle Fourche, Clark Sowers. The Honor Guard posted the colors and Doug Dick, from Gillette, Wyoming, sang the National Anthem. The Master of Ceremonies, Warren Fisk, from Rapid City, commented on the various territorial governments which had been associated with this area. Dennis Bland, BLM Wyoming, presented a history of the Dakota-Wyoming Survey. A history of the Dakota-Montana Survey was presented by Dan Mates, BLM Montana. Francis Eickbush, Chief of Cadastral Survey, administrated a signing of the field notes and plat. Mr. Eickbush also presented the keynote address by speaking on the importance of corner preservation and the land tenure system. An interesting account on early settlement in the area was presented by Leo Giacometto, Executive Director of the High Plains Heritage Center in Spearfish, South Dakota. Prints of the painting "Surveying in the Sandhills in 1904" donated by Rollin Curd, Chadron, Nebraska, were presented to selected individuals. Immediately afterward, many of the attendees traveled nearly one mile east to view the southeast corner of Montana monument. The final stop was at Herrmann Park in Belle Fourche where the Chamber of Commerce sponsored an enjoyable luncheon, old friendships renewed and new friendships were the order of the afternoon.

NW CORNER OF WYOMING REMONUMENTATION

On August 19, 1994, a group of 35 hardy individuals braved an arduous climb to reach the northwest corner of Wyoming. Some of the people participated in the reconnaissance trek last

year. Others were experiencing for the first time the spectacular scenery from the high country of Yellowstone National Park. There were individuals from the Bureau of Land Management, U.S. Forest Service, National Park Service, and the private sector of land surveying. All shared a common interest in the historical significance of the corner position being remonumented.

The corner position was identified from remaining accessories during last year's trek although the original wood post marking the position was gone. The missing post is attributed to the fire of 1988 which swept the area in a raging inferno. Upon reaching the corner site, remonumentation efforts were soon underway.

A special cast brass capped monument was set in concrete at the corner point, with a bronze interpretive plaque anchored alongside. The plaque details the original establishment, date of the remonumentation, and the logos of the Professional Land Surveyors of Wyoming, Montana Association of Registered Land Surveyors, National Park Service, and the Bureau of Land Management. A treated wood post replicating the original corner was set north of the monument along with added inscriptions of the organizations participating in the project.

Special recognition goes to Hofland Survey Monuments and Portland Foundry for the design and construction of the monument and to those who contributed toward the purchase of the plaque. The National Park Service deserves recognition for providing the concrete, water, and wood post and transporting the materials to the corner site. Finally, a special thanks goes to those 35 hardy individuals who braved the climb and accomplished the onsite work, resulting in yet another successful venture for the surveying profession.

LET'S GET IT RIGHT

Here are the rules for writing metric symbols, names, and numbers and for pronouncing metric names, as provided by the U.S. Metric Association and the American National Metric Council

WRITING METRIC SYMBOLS AND NAMES

Print unit names in lower case, even those derived from a proper noun (meter, kilogram, second, kelvin, newton, pascal).

Print unit symbols in upright type and in lower case except for liter (L) or unless the unit name is derived from a proper name (m, kg, s, K, N, Pa).

Print decimal prefixes in lower case for magnitudes 103 and lower (that is, k, m, p, and n) and print the prefixes in upper case for magnitudes 106 and higher (that is, M and G).

Leave a space between a numeral and a symbol (write 45 kg or 37°C, not 45kg or 370C).

- Do not use a degree mark with kelvin temperature (write K, not °K).
- Do not leave a space between a unit symbol and its decimal prefix (write kg, not k g).
- Do not use the plural of unit symbols (write 45 kg, not 45 kgs), but do use the plural of written unit names (several kilograms).

Indicate the product of two or more units in symbolic form by using a dot positioned above the line (kg.m.s²).

Do not use a period after a symbol (write "12 g", not "12 g.") except when it occurs at the end of a sentence.

WRITING NUMBERS

Always use decimals, not fractions (write 0.75 g, not 3/4g).

Use a zero before the decimal marker for values less than one (write 0.45 g, not .45 g).

Use spaces instead of commas to separate blocks of three digits for any number over four digits (write 45 138 kg or 0.004 46 kg or 4371 kg). Note that this does not apply to the expression of amounts of money.

In the United States, the decimal marker is a period; in other countries a comma usually is used.

PRONUNCIATION

candela	Accent the second syllable, can-dell-ah.
hectare	Accent the first syllable: heck-tare. The second syllable rhymes with care.
joule	Rhymes with pool.
kilometer	Accent the first syllable: kill-o-meter.
pascal	Rhymes with rascal.
siemens	Sounds like seamen's.

METRIC HIGHWAY SIGNS: THE GOOD NEWS

In April 1994, the Federal Highway Administration (FHWA) decided against action on the conversion of highway signs until after 1996. Somehow this has made headlines as a setback for metric, but for the construction industry, FHWA's notice is welcome. It separates the metrication of signage, essentially a cultured issue, from the metrication of construction, which directly affects the quality, efficiency, and global competitiveness of the U.S. construction industry. Without the distraction of the signage debate, the industry can concentrate on meeting FHWA's October 1996 deadline for new highway construction to be in metric. Signage. Aside, the federal commitment to metric is stronger than ever. With the Navy's recent announcement that it will build its new projects in metric after October 1996, the federal agencies have all "gone metric" in their construction programs.

HOT TIPS!

We are preparing for our upcoming "Hot Tips" issue and would like to enlist your help. Perhaps you, as a member of your state society, can spread the word that Professional Surveyor is looking for submissions.

What are "Hot Tips?" "Hot Tips" are any helpful hints that can make the surveyor's job easier, more profitable or more interesting. Suggestions on equipment maintenance, helpful business practices and time-proven techniques can all qualify as "Hot Tips." Say, for example, you discovered a way to utilize your computer software using much less memory. Or, you discovered a technique that saved you money. These are "Hot Tips" and we need your help in providing them!

More importantly, the 59,777 recipients of our magazine would benefit from them!

After each tip, we will list the sender's name and company. The ten best will win \$25 each! There is no limit to the number of entries, and pictures or illustrations would be appreciated. Submissions should be no longer than one double-spaced page (250 words), although they may certainly be much shorter, and should be sent no later than the first week of November. Please address them to Hot Tips, c/o Mike Stone.

Sincerely,
Mike Stone, Assistant Editor

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