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THE EQUALITY STATE SURVEYOR

LINES & POINTS

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

JAMES CLAFLIN, VICE-PRESIDENT CHRIS HAMILTON, PRESIDENT RICK HUDSON, SEC.-TREAS.

VOLUME 6, NO. 2 JULY 1994

☐ APPROVED ☐ REJECTED DATE

MEMBERSHIP APPLICATION

NAME _____ WY REG. NO. _____

(Please indicate preferred mailing address) DATE _____

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STREET OR BOX: _____

CITY/STATE/ZIP: _____

TELEPHONE: _____

BUSINESS ADDRESS: _____

STREET OR BOX: _____

CITY/STATE/ZIP: _____

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&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 or assessments may vary in amount. Applications are considered by the board of Directors at quarterly meetings. Send completed application to PLSW, c/o R. L. Hudson, Sec./Treas., P.O. Box 784, Thermopolis, Wyoming 82443.

HOW CAN WE RECRUIT THE NEXT GENERATION OF SURVEYORS?

DEXTER M. BRINKER, PE-PLS
CONSULTING ENGINEER AND LAND SURVEYOR
P.O. BOX 3092, DURANGO, COLORADO 81302

ABSTRACT

For over two hundred years in the United States, surveyors have not been recruited, trained, or interned. They have, for the most part, just "happened", pretty much as if they had crawled out from under a rock! Granted many surveyors, past and present, went through a short period of apprenticeship, but few, in their formative years said to themselves, "I want to be a surveyor", and entered a formal training program to reach that goal. When I operated the Brinker School of Surveying and Mapping (1971-1980), I made it a point to learn what factors attracted students to the surveying arena. Only two common denominators emerged; first, a desire to do creative and responsible work, and second, to be able to spend a large portion of the work week outdoors. These two factors agreed closely with those which attracted me to surveying and mapping in 1950, so I felt they were fairly valid, even in 1975. Since then, however, amazing changes have occurred in surveying technology and surveying today is a totally different ball game from that which existed before 1975. New ways must be found, and found soon, to recruit qualified persons who will become the surveyors of tomorrow.

DISCUSSION

Unless you have been on a twenty year siesta with Rip Van Winkle, you know that public education in the United States is in a state of disarray. There are many opinions as to why this condition has evolved, and I certainly have my share. However, it is not the purpose of this discussion to explore the problems facing public education, but rather to examine how this situation may be related to the "art and science" of surveying in the twenty-first century.

Note that I did not refer to the "profession" of surveying! This is intentional, since I still am not convinced that we, as a group, deserve that distinction. If you are intrigued by this concept, please read my comments in "What They Say", in the A.C.S.M. Bulletin of June, 1984. In my opinion the situation has improved only slightly since then.

Getting back to the problem of public education, it has been my observation that many schools do a poor job of preparing young students for careers. Most high schools do have so-called "career counselors", but often these people have had little or no actual job experience in any of the fields they try to explain to students, and many seem to be mostly occupied with maintaining a "library" of job information booklets. In any event, the problem is more deeply seated because high school is too late to be exposing students to various types of jobs and the required training.

There is a glimmer of hope however, and that is the fact that many, if not most, teachers and counselors welcome outside help. It is in this arena that you, as a practicing surveyor, can exhibit some real professionalism. Go to your local school (grade, middle, "students") and offer to explain to them (and their teacher) a little about surveying and mapping. Classes in geography (usually buried somewhere in "social studies") offer a natural place to start. This is particularly true in schools which are making use of National Geographic training materials. You don't have to have teacher training or a teaching certificate — you are simply a guest of the teacher and are explaining to the class information with which you are very familiar. It's easy, and after you do it a few times, it actually becomes fun!

However, here is a word of warning. Don't go into a classroom "cold turkey" or the students almost surely will embarrass you with their questions. I have been asked very profound questions by second graders, questions which many practicing surveyors wouldn't even think of. Have an outline of what you want to present to the class, and if you are asked questions which you can't answer (and you probably will be), offer to find the necessary information and take or send it to the teacher. Be open-minded about your choice of topics. You may be amazed at how receptive young children are not only to map making, but to world geography, aerial photography, and navigation and astronomy.

The idea behind this effort is, of course, that if enough young, impressionable children learn first-hand what surveyors do for a living, a few may be inspired to seek the necessary training and eventually be qualified to hold responsible surveying and mapping positions. This training is essential because surveying and land information systems have become so sophisticated that newcomers to the field no longer can "learn it all on the job" and the surveyors of the future will not just "happen". Becoming involved in recruiting work of this type has a positive side effect in that the best way to master a subject is to explain or teach it to someone else. You'll be surprised how much you learn if you really work at it.

I have mixed emotions about mandatory "continuing education" but certainly any state which has such a requirement should allow credit for liaison work of this sort. However, with or without "credit", by investing some time in this much needed activity, you will be brining surveying and mapping one step closer to being a real profession.

CONCLUSION

In this discussion I have suggested one way in which the practicing surveyor can help recruit the next generation of surveyors. Very likely you can think of other ways. As a final thought, consider this idea. How great it would be if just one of the doctor, lawyer, police, murder mystery, or paramedic television shows could be replaced by a new series called, "The Surveyor"!

EDITORIAL POTPOURRI

• **NEW PLSW MEMBER -** The following are new members approved at the May board meetings:

Kent Felderman	Rock Springs, WY	Member
Roger Windholtz	Rawlins, WY	Associate Member
William Masson	Rawlins, WY	Associate Member
Andy Long	Rawlins, WY	Associate Member
David Lee	Rawlins, WY	Associate Member
Berkley Hotchkiss	Saratoga, WY	Associate Member
Tom Casinger	Rock Springs, WY	Special Member
Ray Glasser	Hanna, WY	Special Member
Lee Ann Snodgrass	Hanna, WY	Special Member

Congratulations and welcome to PLSW.

• **PLSW MEMBERSHIP - RECRUIT A NEW MEMBER TODAY!** We need your support. An application is included in this issue.

• **SUPPORT OUR ADVERTISERS -** Advertisers 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 23 SEP 1994.

• **PLSW BOARD MEETINGS -** The next meeting of the Board of Directors will held at the Northeast Corner Dedication on 15 JUL 1994. Contact your director for the time and place.

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

• **STATE REGISTRATION BOARD MEETING -** The next meeting of the State Registration Board will be on or about 20 SEP 94. The issue of continuing education is still being debated. The Board has requested comments from registrants. We believe that the Board needs direction from the technical community. This issue will affect your time and money. Share your thoughts on this subject with the Board and with *Lines and Points.*

It is our understanding that the Board may hold a public hearing on their proposed rules and regulation for continuing education sometime in November or December. Perhaps several hearings around the State may be in order.

• **METRIC PUBLICATION AVAILABLE -** Available from the General Accounting Office P.O. Box 6015 Gaithersburg, Maryland 20884 is a metric publication titled *Metric Conversion: Future Progress Depends upon Private Sector and Public Support* (GAO/RCED-94-23) January 1994 - 72 pages.

Front Cover Artwork by Ray Blaha — Casper

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

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

Lines and Points subscription $50/year

Advertising Information

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

Advertising rates are as follows:

	Year	Issue
Full page	$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 — 23 SEP 1994

MESSAGE FROM THE PRESIDENT

CHRIS HAMILTON, PLS

The summer season has begun for the Wyoming surveyors. With the flood of hectic, frantic deadlines, our attention soon drifts from what is important to our profession. The Wyoming State Board of Professional Engineers and Professional Land Surveyors has voted to require continuing education. I continue to support the concept of continuing education, but strongly urge our members to consider the full impact of this being **MANDATED** by the SBPEPLS. Please take a moment of your busy schedule and contact your chapter directors concerning your views. The SBPEPLS is now writing the new regulations regarding the new continuing education requirements.

Enclosed with this message I have a picture of a bronze sculpture called "MAPPING THE FRONTIER." Mr. Ken Payne created the bronze to honor Mr. Charles Fremont. This bronze was made available to the PLSW from Eagle Bronze Incorporated of Lander, Wyoming for $4800. Mrs. Linda Abell found this art work while touring the foundry at Lander last winter and suggested using this bronze for the scholarship raffle. The art work is truly a beautiful piece with the transit being made of sterling silver. The PLSW board is considering this item to raffle for the scholarship fund. Please contact your chapter director concerning your views toward the PLSW using $4800 to purchase this item. If we purchase the item now, we could set this art work in our local banks, moving the sculpture from town to town. Hopefully viewing this bronze will attract more attention, especially if displayed with a marque describing the item, surveying and the scholarship fund. Wyoming public television made a short video on Mr. Fremont's adventures in Wyoming. This video could be playing next to the sculpture. A display package should be developed to advertise our profession and our scholarship raffle.

The PLSW board met last May in Rawlins, from this meeting the board approved funding Mr. Milton Deny as a speaker to provide business topics concerning contracts, negotiations, and other subjects for the 1995 convention. Also, we were informed the Wyoming Engineering Society would be willing to pay half of this expense. There will be another guest speaker providing survey related topics as well. The person and subjects will be determined later. WES requested that the seminars be limited to two hour blocks. This request was approved, we believe this will allow individuals opportunities to attend other functions and/or visit with our vendors. We are working with the WES to provide eight to twelve hours of continuing education, which will be broken into two hour sessions Friday and Saturday.

The next PLSW board meeting will be held in conjunction with the Northeast corner monument celebration. Please contact your local chapter directors with your views prior to July 15. Hope to see you at the northeast corner of the state July 16. I wish you a safe enjoyable summer.

Sincerely,
Chris D. Hamilton, PLS P.L.S.W. President

Museum Pieces 'Survey' History

The New York State Museum in Albany, N.Y., honored **Teledyne, Inc.** in March with a reception for the company's donation of the historically significant Teledyne Gurley/Charles E. Smart Surveying Instrument Collection. **The collection consists of 192 surveying and engineering instruments, some of which date back to the 1700s.** Included in the collection are such artifacts as an explorer's transit used by **Adm. Richard Byrd** on his second Antarctic expedition, 1933-1935. Gurley also equipped Byrd's first and third expeditions. Another item in the collection is the **Hell Gate Transit,** used in the 1916 construction of Manhattan's Hell Gate Bridge, at that time the longest single span steel bridge in the world.

(From *Roads & Bridges* — May 1994)

such as the maps would indicate had been set. I found no signs of monuments of any kind.

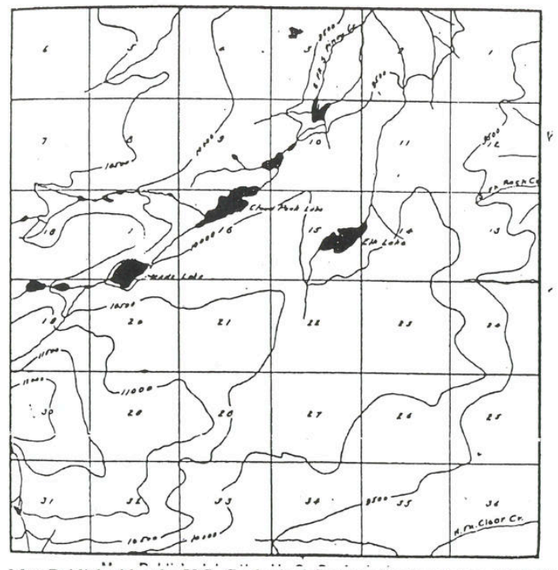
As a further indication that the surveyors who made the land office surveys did not get intimately acquainted with the country it will be noticed that the land office map shows Rock Creek and French Creek running through the entire township in an easterly direction. The topography of the land office map has been drawn with the evident intent of making the country agree with the water courses. The truth is that French Creek does not touch the township at any point and Rock Creek has its source in Sections 12 and 13. In making the land office survey eighteen large lakes were overlooked. On of these lakes is over a mile long. It will soon be utilized as a reservoir and the parties who are interested in its construction were compelled to located it by running an independent line from the foothills at a cost of $800. From the private survey it has been possible to lay out the section lines on the topographic map of the United States Geological survey. This has enabled me to give the matter some further study.

The field notes state that the quarter corner between sections 14 and 15 is indicated on the ground by a post 3 ft. long and 3 ins. square. The witness is a mound of stone. It seems strange that such a corner should be placed in a lake where the water is probably 25 feet deep! Again, the quarter corner between sections 8 and 9 is described as follows: "Granite stone, 12 x 10 x 10 ins., mound of earth." This quarter is located on an extremely rough, rocky mountain side, almost at timber line and there is not a spoonful of earth within a half mile at least. We can see why such a corner was described by looking at the plat furnished by the land office. Upon that map Rock Creek is supposed to flow near this quarter corner. If it did there might be some earth, but Rock Creek is actually four miles away.

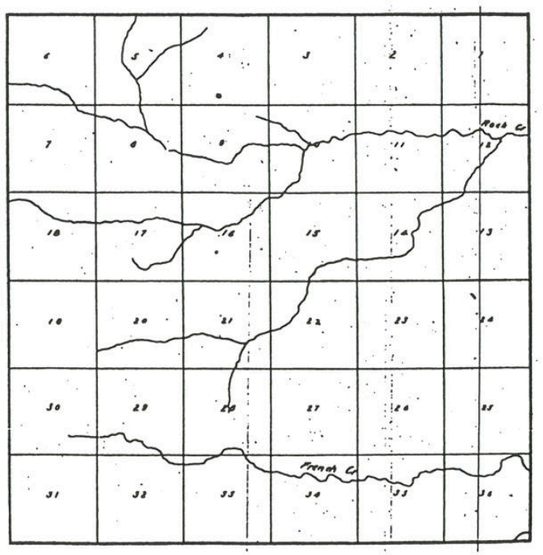
The longer I remained in the mountains, the more I learned to appreciate the topographic work of the U.S. Geological Survey and the less use I had for the land office maps. When I returned to the settlements along Clear Creek east of the mountains, I made inquiries regarding the public land surveys and what I learned served to fully convince me that the early surveys made by the land office in Wyoming were largely fraudulent. It would seem that Wyoming, like some other Western States, had been the victim of Benson, the famous Californian and his adherents. The man who was supposed to have subdivided Township 51 North, Range 85 West, came to Wyoming with the Benson party. It is said that he was once asked regarding the inaccuracies found in this work and he replied "When the Government was doing this work it was paying for field notes, not for mountains." I found that this man was still doing work in Wyoming, although he had been suspended during the time W. A. Richards, Commissioner of the General Land Office, was Surveyor-General for Wyoming. The present Surveyor-General, I was informed, is a brother-in-law of Mr. Benson. Resurveys have been necessary and many more will have to be made. Much of this work has been done by the men who were originally associated with Benson in his now famous "tent surveys."

I am urged to give some expression of my convictions of this kind of work because I feel that the burden does not fall finally upon the Government, but upon the people for who the surveys were made. Resurveys after settlement has begun only add to the difficulty. A map which does not represent the truth is worse than nothing, while such a topographic sheet as that furnished by the Geological Survey was a never-ending source of information. I trust that the land office maps may soon be brought up to the same standard.

[Source: *Engineering News;* V. 55, No. 4; January 25, 1906; p. 87]



Map Published by the U.S. Geological Survey. (Section Lines Added.)



Map Published by the U.S. Land Office.
(SAME TOWNSHIP IN NORTHERN WYOMING.)

Recruit a New Member NOW!

Fraudulent Government Land Surveys In Wyoming

INTRODUCTION

HERBERT W. STOUGHTON

While searching for materials and information concerning the original surveys executed in Wyoming, I unearthed an article appearing in the January 25, 1906, issue of *Engineering News* (V. 55, No. 4, p. 87) discussing contract GLO surveys in the Big Horn Mountains west of Buffalo. The fifth paragraph reiterates various comments concerning purported activities of John A. Benson Syndicate (from California) in Wyoming.

In that same paragraph, the writer ("E.J.F.") states that the current (in 1905) Wyoming Surveyor General was Benson's brother-in-law. The then current Wyoming Surveyor General was Alpheus P. Hanson (appointed July 22, 1897, removed from office June 21, 1913). In chapter six of Francois D. "Bud" Uzes's excellent book *Chaining The Land: A History of Surveying in California* (1977) ["Fraudulent Surveys"] contains an "incomplete list of John A. Benson's associates and employees from September, 1873 to May, 1885." In that list is the name "A. P. Hanson - 2 contracts - amount paid $36,003.13; brother-in-law to J.A.B." (John A. Benson). It is interesting to note that at least two other names, W. F. Benson and S. W. Brunt, that appear in the "incomplete list" received contracts to execute surveys in Wyoming in the 1880's.

Following is the original article and maps by "E.J.F." The name of the writer is unknown to me.

FRAUDULENT GOVERNMENT LAND SURVEYS IN WYOMING

BY E.J.F.

During the summer of 1905 the writer spent his vacation in the Big Horn Mountains some twenty miles west of Buffalo, Johnson County, Wyoming. The purpose of the expedition was to obtain some specimens of the flora of the mountains in this section and in so far as this is concerned the trip was entirely successful. This portion of the Big Horn Mountains is drained by Clear Creek and tributaries on the east. From Buffalo, Clear Creek runs northeasterly to its junction with Powder River, some fifty miles distant. West of buffalo the course of Clear Creek is nearly east and west. Two small tributaries of Clear Creek flow into it near the town of Buffalo. The first of these, going down stream from Buffalo, is French Creek and the second is Rock Creek. About 25 miles below Buffalo the main tributary of Clear Creek joins the parent stream. It is called Piney Creek.

Before leaving the east I secured a topographic sheet of the "Cloud Peak Quadrangle" from the United States Geological Survey. This map covers the country visited by me during the summer. Before leaving Buffalo for the mountains I also secured copies of the U.S. Land Office maps showing, or pretending to show, a portion of the same country. In comparing the two, prior to my departure, I found that there was a great difference in the maps and for this reason I was interested in checking the two upon the ground. To show how inaccurate the land office map is I have taken one township plat as a typical example. From Buffalo the country looks as though French Creek and Rock Creek flowed directly from the high mountains to the west. The truth is that both streams are cut off by Piney Creek which rises on the slopes of Cloud Peak and runs northeasterly, as shown by the U. S. Geological Survey map. It would seem that the land office surveys were made in a tent near Buffalo and I was unable to find a person who had been able to find a monument on the mountains

BOARD OF DIRECTORS MEETING SUMMARY

The Board of Directors spring meeting was held in Rawlins on Saturday, May 7, 1994, and was hosted by the Rawlins area members of PLSW. The meeting was held at the Cottontree Inn, Martin Pedersen having made the arrangements.

President Chris Hamilton called the meeting to order at 9:10 a.m. with six members of the board present, as well as two alternates, and three other members.

Secretary Rick Hudson stated that summaries of the two board meetings and the annual state meeting in Riverton this February have been printed in *Lines & Points* but the complete minutes are incomplete at this time. Those minutes will be submitted at the July board meeting. The Treasurer's Report was presented and consisted of the April statement from Hilltop National Bank, Itemized Expenses and Balance Sheet. Also presented were final reports on the seminar and raffle. Hudson stating the seminar yielded a net profit of approximately $275 with the raffle proceeds netting $950 for our scholarship program. The report was accepted as presented.

Our NSPS Governor, Becky Braman, presented a report of the April 24th meeting in Reno with emphasis on the matters of railroad abandonment, the Arkansas lawsuit and the draft of cadastral survey guidelines. A motion was carried wherein PLSW will send $100 to the Northwest Chapter of the Arkansas Society of Professional Surveyors to assist in its efforts to pay the $60,000 fine levied in 1993.

Committee reports were presented by Herb Stoughton for Education, Professional Practice and Manual of Practice Committees; Martin Pedersen for Scholarship; and Becky for Handbook. Herb discussed the matter of the 1979 Attorney General's opinion regarding professional corporations; wherein PEs and PLSs, being registered rather than licensed, are not to be included with the "professionals". Perhaps we should reincorporate as the Non-Professional Land Surveyors of Wyoming. Martin reported four applications for scholarships have been received — in addition to the Northeast Chapter program. A motion was carried wherein PLSW will fund each request in an amount not to exceed $500.

Old business began with a report by Herb concerning the Corner Record forms. He stated the form is available in "Word-Perfect" and that disks can be obtained from Rich Greenwood. Further discussion concerned the use of seals and an incident regarding unauthorized changes to a sealed document.

Additional old business involved Herb's report on the teleconferencing course "Survey Boundary Control and Legal Principles", the final report to be presented at the July board meeting; and his presentation of the draft of Volume I, "Published Annual Reports of the Surveyor General of Wyoming".

New business began with nine applications for membership, seven of which presented by Martin from persons in the Rawlins area. Welcome to PLSW: Thomas E. Casinger, Ken E. Felderman, PLS, Roger E. Windhold, William J. Masson, Andy Long III, LSIT, David C. Lee, Raymond L. Glasser, Le Ann Snodgrass and Berkeley W. Hotchkiss.

The next item of new business was the application for formation of a new chapter for the Rawlins-Carbon County area. Martin Pedersen made the presentation, stating the need for such action and that the South Central Chapter had been contacted and had raised no objections to the proposal. Since less than ten members reside within the area of the proposed chapter it was agreed that our by-laws must be amended before this matter can be finalized. The board voted to approve the "South Central Chapter - Upper Platte Branch"; that it be authorized to conduct business until the 1995 annual state meeting; and that it have all authority and privileges as other chapters. The By-Laws Committee will report to the board following its review of the current procedure of chapter formation.

Other new business concerned the preparation of a questionnaire regarding the filing of corner records for 1/16 corners; and a matter from R. R. Stapp, PE, of WYDOT, regarding qualifying experience for the LSIT and PLS examinations. Herb will handle the former matter and Chris will submit a letter regarding the latter to the state board of registration, wherein PLSW feels experience should be evaluated on an individual basis.

A general discussion concerning the 1994 annual state meeting and convention centered around the possibility of retaining Milton Denny for several short (one to two hour) sessions dealing with business rather than technical topics. A proposal from member Ray Connin to present a seminar at the convention was distributed and discussed.

The possibility of a raffle for a bronze statue of a frontier surveyor was discussed. Chris will contact the foundry in Lander and report to the board.

Don Brady stated the Northeast Chapter has awarded its current scholarship to Cevin Imus. Matching funds were authorized.

Don also extended an invitation to PLSW members to camp at his ranch while attending the board meeting on July 15th and the dedication of the northeast corner of Wyoming on July 16th, and distributed a map giving directions to the ranch.

Martin Pedersen invited all members to a luncheon at his residence following this meeting — also distributing a map giving directions.

The meeting was adjourned at 1:15 p.m.

Dated this 24th day of June, 1994.

R. L. Hudson, Secretary/Treasurer

PLSW Key Rings are for sale.
Send $5 to:
P.O. Box 904
Casper, WY 82602

Letter to the Editor

June 3, 1994
Editor
Lines and Points

Sir;

A great deal of misunderstanding and confusion exists within the Wyoming Engineering and Surveying Professions concerning the proposal on the part of the State Board of Registration for Professional Engineers and Professional Land Surveyors (SBRPE&PLS) to implement a Continuing Professional Competency (CPC) requirement for maintaining a Wyoming registration. This misunderstanding and confusion has only been enhanced by the recent publication of additional misinformation. As I read commentary on the Continuing Professional Development issue I'm struck by the idea that the first required course should be one which thoroughly explains the concept and proposed requirements, the other a course in remedial spelling. (It is now time for the disclaimer: ALL opinions expressed herein are mine alone and are not intended to reflect the thinking or position of the SBRPE&PLS on this or any matter.)

One of the major misconceptions concerning CPC is the opinion that this requirement is a product of and promoted by educators. In the case of the Wyoming Board, the most vocal and persistent promoters of this concept are myself and Paul Scherbel. The majority of the Board did vote in favor of CPC and it should be noted that John Steadman, our president, as presiding officer, did not vote. In the case of the National Council of Examiners for Engineers and Surveyors (NCEES), the driving force in formulating model rules for CPC was not educators but a desire for uniformity among jurisdictions requiring CPC. For those unfamiliar with NCEES, the primary function of that group is to provide uniformity in issues dealing with registration such that registrants can move between jurisdictions with a minimum of inconvenience and lost time. As several member jurisdictions either have, or are in the process of implementing CPC, the NCEES decided that its proper role was to offer a framework for uniformity in the endeavor. (All those who smell rats at this juncture are advised to check their own rat traps.)

As of April, 1994 it was reported by NCEES that three jurisdictions required CPC for Engineers (Alabama, Iowa and West Virginia). Fourteen jurisdictions required CPC for Land Surveyors (Alabama, Arkansas, Delaware, Florida, Kentucky, Missouri, Nebraska, New Hampshire, New Jersey, North Dakota, Oklahoma, South Dakota, Texas, and Utah). It was this large number of jurisdictions requiring CPC that prompted the alteration in NCEES policy.

It has been implied that the vast, majority of Wyomirig registrants oppose the implementation of mandatory CPC. While it is true that the overwhelming majority at the public hearing for the proposed CPC rules and regulations held in Cheyenne, spoke in opposition, the other forums and correspondence do not reflect that opinion. At. the WES conventions in both 1993 and 1994, input and straw polls during panel discussions indicated a substantial majority in favor of the concept. In addition, the written comments received during the comment period for the proposed rules and regulations were tabulated on the following basis;

1) In favor of the proposed rules with no change;
2) In favor of the proposed rules with reservations;
3) Neutral (or not sure);
4) Opposed to the proposed rules and regulations mildly;
5) and Opposed to the proposed rules and regulations adamantly.

The SBRPE&PLS received 296 written comments concerning the proposed rules and regulations. Based upon the above referenced tabulation, 1% of the comments fell in category 1, 50% in category 2, 10% in category 3, 25% in category 4 and 14% in category 5. I would not characterize this type of response as overwhelming opposition.

It is also true that whenever a requirement of this type is implemented there are those who find ways to circumvent or "beat" the system. I am sure that there will be engineers and surveyors in Wyoming who will do the same. However, it has been my observation during my 6 year tenure on the SBRPE&PLS that the vast majority of our registrants are truly professional and conduct themselves accordingly. I am confident that these professionals will comply with both the letter and the spirit of any CPC requirements imposed. I further observe that a large percentage of these registrants already do more than enough CPC activities to satisfy our proposed requirement and that the only burden imposed on those people will be that of making a biennial report to our Board. These professionals understand that the maintenance of professional skills require a continuing commitment to learning and simply do that on their own. (If everyone did this CPC would be a moot point.) Some hold the opinion that the CPC requirements for other professions are less than desirable. I personally take comfort in the knowledge that my legal council, health care professionals, and my children's teachers all are performing some type of CPC.

I have heard much comment concerning the format and requirements for acceptable CPC credits. My interpretation of the guidelines as presented allow for wide latitude in accepting activities for CPC credit. One major misconception concerns the treatment of educators and collegiate level type courses. One activity NOT allowable is credit for doing your regular job. An educator's regular job is teaching and this activity will not be credited toward CPC requirements. Credit for teaching a course or seminar the first time, will be allowed. In evaluating an activity for acceptance as CPC one should remember the philosophy. An activity which improves a professional's knowledge or performance capability is probably an acceptable activity.

Finally concerning the potential for utilizing a poorly researched article replete with misinformation and innuendo for CPC credit my opinion is best expressed by quoting one of *my* 13 year old son's most used phrases, "IN YOUR DREAMS".

Very truly yours,

Ralph W. Goodson, PE&LS (Box 130, Sundance, WY 82729) (Mr. Goodson is a SBRPE&PLS board member.)

Editor's Note: This letter was not edited. *Lines & Points,* PLSW and the Registration Board need your input on continuing education.

IN MEMORIUM . . .

RICHARD L. OAKES
1932-1994

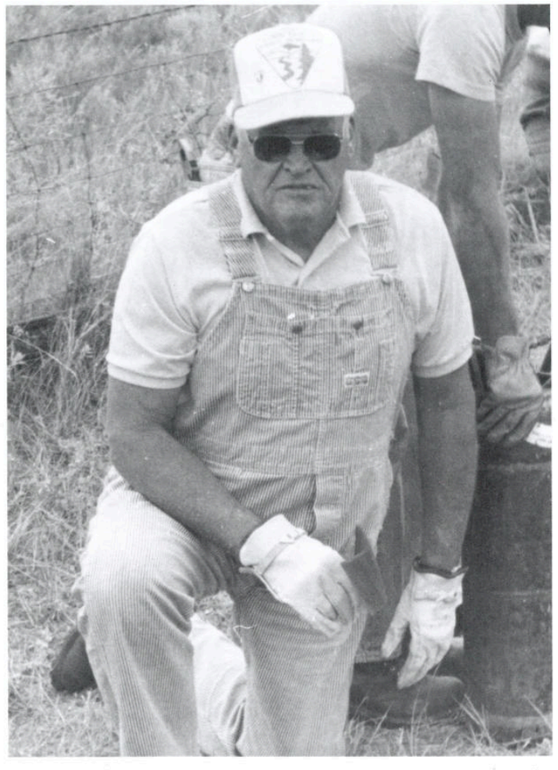
Richard L. Oakes, retired Wyoming BLM Cadastral Branch Chief, passed away at his home in Cheyenne on April 9, 1994, of an apparent heart attack. Rich was born on August 20, 1932, in El Dorado Springs, Missouri, and had lived in Cheyenne since 1972.

Rich spent his entire civilian career with the BLM's Cadastral Survey working throughout the United States. He served as the Branch Chief of Cadastral Survey in Wyoming from 1972 until his retirement in 1989, with 36 1/2 years of Federal Service. He also served in the U.S. Army during the Korean Conflict from 1952 to 1954.

Rich was an active member of the Moose Lodge, American Legion Post 6, and the Veterans of Foreign Wars.

He is survived by two daughters, Rhonda Todd of Cheyenne and Lisa Oakes of Denver; one son, Tim Oakes of Denver; two sisters; one brother; and two grandchildren. He was preceded in death by his parents, Fred and Alva Oakes and one brother.

Services were held in Cheyenne on April 12th, followed by burial in the Beth El Cemetery. Military gravestone honors were provided by the American Legion Honor Guard.



Rich was a Cadastral Surveyor Volunteer with BLM on the remonumentation project of the Northeast Corner of Wyoming. While working at the corner site on September 28, 1993, this

Herb's Corner

HERBERT W. STOUGHTON

Describing Aliquot Parcels of Public Domain Lands

Recently, the question was presented to me concerning the correct language for describing aliquot portions of sections. The particular question concerned the lots adjacent to the northerly and westerly boundaries of a township. However, the solution is applicable to any other legitimate subdivision of a section. Herein, are verbatim transcriptions of two General Land Office circulars addressing this issue.

Circular No. 397

Descriptions According To Plat Of Survey

Department of the Interior, General Land Office,
Washington, April 2, 1915
Registers and Receivers, United States Land Offices.

Sirs: Because of the fact that descriptions of land in patents must follow the register's certificate of entry or location, care should be exercised by registers to describe the land according to the plat of survey. If a section is fractional or irregular, the tract should be described only according to the plat, and no mention made of what the description would be if the section were not fractional or irregular.

Before issuing a final certificate, a certificate of allowance of entry, or a notice for publication the description should be verified from the plat.

Very respectfully.
Clay Tallman, *Commissioner*

Circular

Descriptions Of Land In Final Certificates And Patents

Department of the Interior,
General Land Office,
Washington, Septenber 19, 1923.
Chiefs of Divisions, General Land Offlce:

All patents issued for public lands by this office are supposed to be in conformity with the plat of survey. In the descriptions of land in final certificates, in the different kinds of lists made up, or presented to this office, this rule has not been followed uniformly. It is therefore directed that you advise each one of the employees in your division that in making up lists, examining final certificates or writing letters as a basis for patents, a comparison will be made with the plats of survey covering such lands and the lands in such lists, etc., shall be described according to the descriptions shown on such plats of survey, except that where all of a section is involved it will be sufficient to say "all sec. 1 or sec. 3, " etc., without giving lots 1, 2, 3, and 4, S. 1/2 NE. 1/4, S. 1/2 NW. 1/4 and S. 1/2 of the section. In every instance, however, where a part of the section only is involved and lots appear in that part, the lots must be given rather than what would ordinarily be a quarter section or a quarter quarter section. For instance, lots 3 and 4 constitute what would ordinarily be the W. 1/2 SW. 1/4 sec. 31, so that in such cases the lots must be used.

This is in line with the instructions to registers and receivers in Circular No. 397.

Very respectfully,
William Spry, Commissioner

—DIMENSIONS

(Continued from Page 9)

1 Yoke or Joch 6,872.80000 square yards
1.42000 acres

The yoke is an Austrian unit. Units similar in name or size include the jutro or katastarsko of Yugoslavia, which equals 1.422 acres, and the jitro of Czechoslovakia, which equals 1.422 acres and 2.0 koreci.

The hold, an agricultural unit of Hungary, equals 1.422 acres and 1.07 acres. The lanaz of Yugoslavia equals 1,600 square khvats, 1.42 acres, and 57.5 ares. The sulung of old England equaled 4.0 English yokes or jugums and 10.0 ares. The jugum of old England equaled 40.0 acres and 16.2 hectares.

1 Irish Acre 7,840.00000 square yards
1.61984 acres

1 Cheshire Acre 10,240.00000 square yards
2.11570 acres

(The Cheshire acre is an old English unit, now obsolete.)

1 Square Furlong 10.00000 acres

1 Hide 100.00000 acres
4,046.8723549 ares

1 Labor 177.1400 acres

The labor is used almost exclusively in Texas; and old Mexico a labor equaled 70.22 hectares.

1 Barony 4,000.00000 acres
1,618.7489440 hectares

The barony is an obsolete American and British unit.

As it can be readily seen, the S.I. (Metric System) is a vast improvement over the many systems utilized in the past. The surveying profession is uniquely endowed with the knowledge and skills to promote this system and become the lead profession in adapting to the S.I.

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(1948) Reprint 1969

Larry T. Perry, Professional Land Surveyor in Wyoming and Arizona, has over 30 years in the Surveying Profession. Owner of Terrestrial Surveying and Mapping Company in Cheyenne, Wyoming. Charter Member of Professional Land Surveyors of

—ACSM BOARD

(Continued from Page 7)

amendments to the ACSM Constitution and Bylaws to clearly define the offices of Secretary and Treasurer and to clearly spell out the philosophy of no one holding more than one ACSM officer's position at one time.

• Approved the following proposal for the International Privatization of Lands Committee.

1. The University of Wisconsin, with its Land Tenure Center and Technology Transfer Center be recognized as the logical networking center as a repository for papers and reports generated by efforts of ACSM and others.

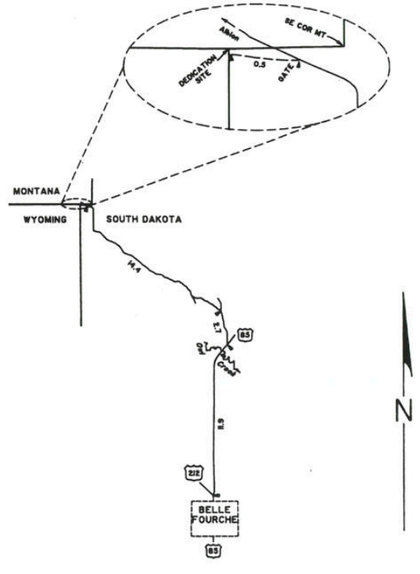
2. A "call for papers" be published for a session on International Privatization of Lands to be held at the 1995 ACSM/ASPRS Annual Convention in Charlotte, North Carolina.

3. This Presidential committee be continued and directed to pursue its charge to "explore methods of communication and networking among academics, government policy-makers and private interest with respect to the surveying and mapping components in land tenure and information systems throughout the world.

• Approved the 1994 Government affairs objectives for ACSM.

Following the Board meeting, President Nicholas Bodnar invited the audience to join the Board in round-table open discussion. "This was the best thing the Board has ever done" was a comment that represented the sentiments of the Board members and grassroots members who participated. A sense of unity prevailed as the future of surveying, mapping, GIS/LIS, GPS and related issues were discussed in an opened and friendly atmosphere. An effort will be made to provide time for this valuable dialogue in the future.

NE CORNER DEDICATION JULY 16, 1994



The Maine Way

MANDATORY CONTINUING EDUCATION PASSES FOR SURVEYORS

The recommendations of the special committee which was the result of L.D. 125 have been enacted. Effective July 14, 1994 Public Law 659 will require Maine Professional Land Surveyors to complete **12 hours** of professional development per biennium. The text of the law is as follows:

Section A-12. 32MRSA SS13908, sub- SS4, is enacted to read:

4. **Continuing Education.** An applicant for license renewal as a professional land surveyor shall present evidence of having completed 12 hours of professional development in the previous biennium. This section does not apply to a person 65 years of age or older who practices less than 160 hours a year. Credit for development hours may be earned as follows,

A. Six hours must be in surveying practice or in courses in at least one of the following areas:

(1) General business administration or management;

(2) Land use regulation;

(3) Other related land use fields, including, but not limited to, civil or environmental engineering, site evaluation for septic system design, soils, landscape architecture, geology, forestry, tide examination and insurance, and other legal issues related to real estate;

(4) Computer application skills, or programming

(5) Communication, including, but not limited to, speech and technical writing: or

(6) Other subject matters the understanding of which would appreciably aid a land surveyor in the performance of professional duties.

B. One hour of professional development may be earned for every 900 hours of survey practice during the past biennium and one hour may be eamed for each 3 years of full-time surveying practice as a registered or licensed surveyor during the time preceding the past biennium.

C. The applicant may acquire professional development credit through the following professional activities:

(1) Credit may be earned by membership and participation in surveying organizations as follows.

(a) Membership in a surveying organization entitles the licensee to one credit hour.

(b) Holding a leadership position in a surveying organization entitles the licensee to an additional credit hour per biennium.

(c) Active participation in an active committee of a surveying organization entitles the licensee to an additional credit hour.

(d) Chairing an active committee of a surveying organization entities the licensee to an additional credit hour.

(e) Attendance at a minimum of 50% of the general membership meetings of a surveying organization entitles the licensee to an additional credit hour.

(2) The licensee is entitled to 1 credit hour for membership in other associations, societies, boards or clubs related to a subject matter described in paragraph A.

(3) A licensee is entitled to one credit hour for each article, column or other significant work relevant to subject matter described in subsection 4, paragraph A that is published in a professional journal, magazine or other similar publication. Credit hours for works written by multiple authors must be divided pro-rata.

The board may waive requirements of this section in cases of undue hardship and may accept for credit worthy professional development activities not specified in this section. The board shall adopt any rules necessary to implement this section.

The provisions of this section must be reviewed by the joint standing committee of thel legislature having jurisdiction over business legislation by March 1, 1999.

This section is repealed March 1, 1999.

(Reprint from Maine Surveyor's Fieldnotes.*)*

ACSM BOARD APPROVES ACTIONS IM RENO

A very successful annual convention took place in Reno, Nevada, April 25-28, 1994. Three thousand attendees participated in workshops, technical sessions, and an exhibit of state-of-theart resources for the surveying and mapping professions. Special social events and tours added to the excitement of the gaming atmosphere of the "Biggest Little City in the World".

During a very effective Board of Direction meeting the following actions were approved.

• Appointed Mary G. Clawson as ACSM Secretary

• Appointed Richard E. Lomax as ACSM Treasurer

• Approved a resolution thanking the Reno Steering Committee and local Committee for developing and managing an outstanding convention.

• Charged the ACSM Task Force for Equal Opportunity to seek a sponsor or sponsors for an African-American Students of Surveying and Mapping scholarship.

• Requested the ASPRS Board to support very careful review of the financial impact of inviting additional organizations to participate at ACSM/ASPRS sponsored conferences.

• Stated a position that no more organizations be invited to join the GIS/LIS Inc., as an equal partner without the approval of the ACSM Board of Direction.

• Accepted the Presidential appointment of chairs of the Society's 38 committees and task forces.

• Approved the purchase of desk top publishing equipment and software to improve the efficiency of all publication activities.

• Requested the ACSM Constitution and Bylaws Committee to prepare an amendment to the Constitution and Bylaws to develop a procedure for appointing replacement directors who are absent from an ACSM Board meeting.

• Received the report on the concept of ACSM Geodetic Certification and requested the appointment of an appropriate committee for further study and report to the Member Organizations and the ACSM Board at the 1994 Phoenix meeting.

• Established an ACSM Task Force to implement a convention program in support of K-12 education; to explore funding alternatives with vendors, agencies, and other organizations. The Task Force will report back to the Board not later than Phoenix with the objective of organizing a day of sessions/activities in Charlotte.

• Directed the Constitution Committee to prepare

(Continued on Page 10)

KONTINUING EDUKATION KOURSES

The "Laramie Harpoon" reports that the State Board has approved the Universities list of Kontinuing Edukation Kourses. The kourses are designed to improve the quality of the professions and elevate their public images. The kourse list is as follows:

ENGINEERING

EN101 New Developments in Statics
EN102 Remedial Calculus For Those Who Never Use It
EN103 Structural Realities of Converting A Restaurant Into A Gas Station
EN104 Stability For the Electrical Engineer
EN105 Creative Earthwork
EN106 Newton's Laws Revised
EN107 Coloring For Mass Diagrams (not for beginners)
EN108 Heat Loss and Sex (come early
EN109 Heat Gain and Sex space limited)
EN110 Ethics For the Unsavory

BUSINESS

BU101 Supervising the Illiterate Technical Graduate
BU102 Tax Shelters for the Unemployed Petroleum Engineer
BU103 Everything You Should Know About Changing the Cartridge in Your Printer
BU104 How to Cope With Over Regulation
BU105 Kontinuing Edukation Can Make You Rich
BU106 The Fleece Em, Skin Em, and Gouge Em, Approach to Business Development (taught by three attorneys)

SURVEYING

SU101 Creative State Plane Coordinates
SU102 Advanced Brush Cutting for the PLS
SU103 The Joys of Hub Cutting
SU104 101 Uses for Your Drafting Tools
SU105 Creative Tripod Painting
SU106 New Developments in Coordinate Geometry
SU107 How to Design Corner Recordation Forms in Less than Three Years
SU108 Another Theory of Least Square Adjustment
SU109 How to be Productive While your GPS Receiver is Gathering Data
SU110 Legal Aspects Attorneys Don't Know About

SELF-IMPROVEMENT

ME101 Whine Your Way to A Promotion
ME102 Over Coming Peace of Mind in the Drafting Room
ME103 Molding the Technician's Fear Through Guilt and Shame
ME104 Architectural Snootiness for Engineers and Surveyors
ME105 Medical Holiness For Engineers and Surveyors
ME106 Beating the Kontinuing Edukation Requirements Without Becoming an Edukator.

HURRY ! Sign up now. Each kourse costs $495 and earns 10 PDH'S. Kourses are not offered in a city or town where you live. Don't get caught with your PDH's down.

NORTHWEST CORNER MONUMENTATION

The Bureau of Land Management, Branch of Cadastral Survey, in cooperation with the National Park Service, the Professional Lands Surveyors of Wyoming, and the Montana Association of Registered Land Surveyors are making preliminary plans to remonument the original northwest corner of Wyoming on Friday, August 19, 1994. The northwest corner of the Wyoming Territory was originally established by A. V. Richards, U. S. Astronomer and Surveyor, in 1874. A reconnaissance trip on August 22, 1993, recovered the original mound of stone with 3 reference stones, and the remains of original bearing trees. The original wood post erected by Richards was destroyed by the fires of 1988.

As part of the remonumentation work, the BLM will be conducting a GPS survey and geodetic traverse to establish geographic coordinates at the corner position. The BLM would like to extend an invitation to all interested surveyors who would like to participate in this effort. The work will be performed at the same time at the remonumentation.

The corner is situated in Yellowstone National Park, approximately 1,700 vertical feet above and 1.25 miles east of the Gallatin River. It is accessible only by a 2 hour arduous hike, and is shown on U.S.G.S. Topographical Map: BIG HORN PEAK,, MONT.- WYO. 1986.

We are recruiting for volunteers to help with this joint project in an attempt to preserve this historic monument. The view from 1700 feet above the Gallatin is spectacular. All help will be greatly appreciated. For details on the project contact Steve Albreight at the Montana BLM State Office (406) 255-2974, or Jerry Messick at the Wyoming BLM State Office (307)775-6220.

If you are interested in participating in the GPS survey and traverse contact Mike Londe at the Wyoming BLM State Office 307-775-6209.

Editors Note: NW corner will be remonumented on 19 Aug. 94 (See article last issue.)

THE DILEMMA OF DIMENSIONS

LARRY T. PERRY, PLS

(Continued from our last issue)

The meridian mile was established by international agreement in 1954 and closely approximates 1/60 degree of the earth's meridian. Many similar units should be noted.

In Finland, the meripeninkulma equals 1.15 statute miles. In old Turkey, the berri equaled 1.04 statute miles. In Finland, the sjomil equals 1.151 statute miles and 1,852 meters, while the sjomil of Iceland equals 6,085.95 feet and 1,855 meters. In Sumatra, the paal equals 1.151 statute miles and 1,852 meters, while in Java, the paal equals 1,648 yards.

In Argentina, the milla equals 1 .0 statute mile in Venezuela, 1 .154 statute miles; in Nicaragua, 1.159 statute miles; and in Honduras, 1.149 statute miles. The mila of Poland equals 5.30 statute miles, and the mijl of the Netherlands equals 0.621 statute mile and 1.0 kilometer.

The miglio of Italy equals 1.0 kilometer; the miglio of old Rome, however, equaled 0.925 statute mile; and the miglio of old Naples equaled 1.38 statute miles. The milha of Portugal equals 1.28 statute miles and 2,066 meters, and the milha of Brazil equals 1.21 statute miles and 1,955 meters.

The meile of Austria equals 24,000 fuss and 4.71 statute miles; the meile of Prussia equals 24,000 fuss and 4.68 statute miles; and the meile or merfold of Hungary equals 5.19 statute miles. The unit is probably the same as the mille marin or French geographic mile.

1 International Nautical Mile, or International Air Mile	6,076.11549 feet 2,025.37183 yards 1.15078 statute miles 1.00002 meridian miles 0.999317 geographic mile 0.249627 international geographic mile 1.8520416 kilometers

The international nautical mile is considered the most accurate mile measure to date using the earth's meridian.

1 Geographic Mile, Nautical Mile, Knot, Air Mile, or Sea Mile	6,080.27000 feet 2,026.75667 yards 368.51021 rods 9.21253 furlongs 1.15157 statute miles 1.00067 meridian miles 1.00066 international nautical miles 0.249797 international geographic mile 1.8532699 kilometers

The geographic mile originally was designed to equal 1 minute or 1/21600 of a great circle of the earth and has survived as another version of the meridian mile. In 1929, the International Hydrographic Bureau proposed a length of 6,076.097 feet to succeed both the meridian and geographic miles, which in turn have been replaced by the international nautical mile.

The geographic mile is also known as an admiralty mile in Britain.

The name knot originated as a division in a special line called a ship's log line. This line was tied to a small log that kept it afloat. At intervals, the line was knotted in the same proportion that 28 seconds are to an hour, or about 47 feet apart. The number of knots that ran off a reel of line in 28 seconds was the number of nautical miles the ship was traveling in an hour.

Similar units include the sjomil of Finland, which equals 1.151 statute miles, and the sjomil or sea mile of Iceland, which equals 6,085.95 feet and 1,852 meters. The ri of Japan equals 36 cho and 2.44 statute miles; the marine ri of Japan equals 1.15 statute miles; and the obsolete kenning equaled 20.21 statute miles and 32.2 to 33.8 kilometers.

1 Irish Mile	6,720.00000 feet 2,240.00000 yards 407.27273 rods
1 Square Chain	10,000.00000 square links 4,356.00000 square feet 484.00000 square yards 16.00000 perches 0.400000 rood 0.117869 arpent 0.100000 acre

The square chain is the Gunter's or surveyor's chain squared, and is used in surveying. The unit is known as a ngan in Slam.

1 Rood	10,890.00000 square feet 1,210.00000 square yards 40.00000 perches 2.50000 square chains 0.250000 acre

The rood is a British unit used in surveying. An obsolete unit of Scotland, the particate, equaled 13,690 square feet and 1/4 acre, and the maal or mal of Norway equals 10.0 ares and 1/4 acre.

1 Arpent	36,956.21760 square feet 4,106.24640 square yards 135.74368 perches 8.48398 square chains 3.39359 roods 0.848398 acre

The arpent is a French unit used in surveying. Units similar to it include the morgen, juchert, and tagwerk or tagwert, all of Bavaria and equal to 0.842 acre and 34.07 ares.

The juchert or juchart of Switzerland, however, equals 0.89 acre and 36 ares, and the juchart and tagwerk of Wurttemberg equal 576 square ruten, 1.168 acres, and 47.27 ares. The morgen of Prussia equaled 0.631 acre and 25.53 ares, while the morgen of South Africa, a morning's plowing, equals 2.116 acres and 85.65 ares.

1 Acre	43,560.00000 square feet 4,840.00000 square yards 160.00000 perches 10.00000 square chains 4.00000 roods 1.17869 arpents 0.786990 Scottish acre 0.617347 Irish acre 0.472656 Cheshire acre

Henry VIII of England limited the size of an acre to a piece of land 40 measuring rods long by 4 rods broad, each rod being about 5.5 yards long. The ancient Romans had used 10-foot rods, with each foot being about 13 inches.

1 Scottish Acre	6,150,000 square yards 1.27066 acres

The Scottish acre is also considered to equal 6,104 square yards.

(Continued on Page 10)