



THE EQUALITY STATE SURVEYOR PROFESSIONAL LAND SURVEYORS OF WYOMING





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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 National Society of Professional Surveyors (NSPS) and the Western Federation of Professional Land Surveyors (WestFed).



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ADVERTISING INFORMATION

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		(A.C. 1981	
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PRESIDENT'S MESSAGE

From the President:

Spring is slowly coming to Laramie. I am writing this on Monday, May 24, 2010 and it hasn't snowed in Laramie since this afternoon. In spite of the snow in Laramie, spring brings hope, hope of a better economy, a busy season, a summer to be enjoyed, children spending lazy days out of school, possibly a summer vacation, and renewed vigor.

It is also a time when chapter meetings adjourn for the summer simply because the members are busy. This summer please work safely and efficiently, take some time to enjoy the weather, your families, and live your life to the fullest.

Sincerely, Mark Rehwaldt

ANNOUNCEMENTS

- ESRI Survey and Engineering Summit on July 10-13, 2010 at the San Diego Convention Center. Includes: Latest government trends and regulations from Ronnie Taylor, deputy director of NOAA-NGS, and Donald Buhler, chief cadastral surveyor for the BLM; also see how GIS-educated RPLSs are vital to the geospatial industry during Eric Gakstatter's presentation, "Get it Surveyed (GIS)." More information is available by visiting the ESRI website: www.esri.com/events/survey.
- August 6th, 2010, is the application deadline for the October NCEES Examinations.
- The Wyoming Board of Registration is now offering Professional Land Surveyor candidates the opportunity to take the 2-hour State Specific Examination on a given day each month during the year. The upcoming examinations will be administered in Cheyenne at the Board Office on July 19th, August 16th, and September 20th, 2010.
- The NCEES Annual Meeting to be held in Denver, CO on August 18-21, 2010.
- Next PLSW BOD meeting is expected by telephone conference at 8:00 a.m., August 28th 2010.
 Please email agenda items or request meeting minutes to Secretary Marlowe Sherbel at plsw@ssltd.net.
- Next Wyoming Board of Registration For Professional Engineers and Professional Land Surveyors meetings are expected to be held on September 27th and December 13th of this year.
- The 2010 Fall Technical Session will be held on November 4 5, 2010 at the Ramkota Inn in Casper. Our guest speaker will be David Doyle, NGS Chief Geodetic Surveyor. Look for more information in the October issue of Lines and Points.
- The WES President's Project of the Year Award is due on Jan. 4, 2011. The criteria for the submittal can be found on the society's web site: www.wyomingengineeringsociety.org
- Please email your scanned artwork or digital photos to mike.flaim@bresnan.net or sent larger files on CD or DVD to Lines and Points, P.O. Box 8, Cheyenne, WY 82003. This issues cover is entitled: "A Recovered Stone Section Corner" by Larry T. Perry, LS 3047.

From the Prexy Pasture Survey Crew:

I would like to quote Joe Glenn who said, "My two favorite days are when the students leave in the spring and when they come back in the fall." I have survived the first year of teaching and I am enjoying the slower pace of summer.

During the first year classes were renumbered and reorganized, hopefully for the better and the number of students increased from the fall semester to the spring semester. The increase in students consists of two data points which don't make a trend, but I would much rather have the second data point going up rather than down.

My heart goes out to the students who put everything they have "into it" and come up short. I know that the hopes and the dreams of their families are with them and when they come up short, a little bit or a lot of the dream dies. I do the best I can, sometimes it doesn't seem like it is enough.

I have really enjoyed watching students have the "ah ha" moment when they "get it". Those are the moments that I want to grab onto and not let go of. On the business end, Public Land Surveys has changed from three one-hour classes to one three-hour class. Dennis Mouland is busy reworking the class to reflect the "new" 2009 BLM Manual of Surveying Instructions. Chuck Karayan is putting together Inland Water Boundaries which will be a new class offered in the Spring of 2011 and will complete the water boundaries sequence.

Sheridan College has an Associates of Applied Science which uses the University of Wyoming surveying classes and they are working on making the degree available by distance delivery.

Oklahoma State University – Oklahoma City has started an Associates of Applied Science in Surveying. They will be using some of UW's surveying classes in their degree.

UW has put the finishing touches on a Bachelor of Applied Science in Organizational Leadership with a concentration in Land Surveying.

With that said, I think it is time to let Prexy's Pasture rest up and recuperate in anticipation of its annual fall survey.

Sincerely, The Prexy Pasture Party Chief



The Evolution of a National Voice

The Future of the National Society of Professional Surveyors

Bv

Wayne Harrison, NSPS President Curt Sumner, NSPS Executive Director John Matonich, NSPS Immediate Past President

The recent NSPS meeting in Phoenix was probably one of the most emotional since NSPS was incorporated in 1981. A motion was introduced at the Board of Governors to request the Board of Directors to initiate the process separating from the umbrella of of ACSM. This certainly organization got everyone's attention and the discussion started. It was emotional at times, rightfully so, bringing many comments and suggestions forth. The end result was a motion passed by the Governors 35 yes, 5 no and 7 abstentions requesting the Board of Directors to initiate the process of separation while charging a committee to study and make a report, by September 15, 2010, on the financial and membership impacts of this action if it were to go full term. This motion was then passed by the NSPS Board of Directors by a vote of 11 yes and 5 no.

A previous agreement with ACSM spells out a two-year term of separation for any of the member organizations (MOs) which can be reversed at any point along the way. The motion that passed holds a lot of wisdom and keeps all options open for NSPS, but it does start the clock and provides a two-year window to work on the future of NSPS and its relationship to ACSM.

Why is this process so important? The answer to that question may be found in the marketing report commissioned by ACSM and all of the MOs to help improve the health of the ACSM and the MOs. An ACSM committee made up of members from all the MOs worked very hard to read through and understand the report. The report gathered information from various sources including association leaders, current and past members, various government agency heads, related association executives and publishing oriented contacts. There were also online surveys conducted with over 4100 current and former MO members and state affiliate members. The results weren't especially surprising, but were very significant. The primary challenges identified were:

- Lack of awareness
- Lack of perceived value
- Perception of ACSM and MOs as an outdated group that is behind the times
- Negative stereotype of the term surveyor
- High levels of competition amongst the state affiliates, MOs and other associations

The report also recommended "the formation of a single industry-wide membership organization that included all the MOs as well as the state and local pieces of NSPS". The Ad-Hoc committee reported this to the ACSM Congress where a motion was passed to charge a committee to study a possible structure of a unified member organization. Their report is due on September 1, 2010.

Given the state of membership, the current financial situation and the findings of the commissioned report, NSPS and the other MOs have reached a critical juncture and there is no luxury of extra time to move this in the right direction whatever that direction may be. The work that will be done by both the NSPS and ACSM committees will be extremely valuable in the discussions about the future. The two-year time frame keeps the importance of this issue where it belongs...at the top of the list.

What is needed is everyone's input on the possible scenarios. If you have a doubt about whether there needs to be a national voice for the surveying profession, you need to think again.

(Continued on Page 12)

A Licensed Profession The 4-Year Degree's Impact on Surveying

By Dave Gibson, Ph.D., L.S. Founding Surveying and Mapping Program Director, University of Florida July, 2009

Background – Surveying education leading to a four-year degree is increasingly being used to define "profession". Some states have moved to a 4-year standard, others have not.

Recent Judicial and Legislative Rulings – A 1992 Florida Supreme Court case declared that surveying was not a profession because of the lack of a 4-year degree standard. In 2003, a Kentucky court applied the same standard stating that surveying was not a profession. The US Dept. of Labor, in administering the Fair Labor Standards Act FLSA, recently decided that Maine surveyors were not part of a "learned profession" because of the lack of a 4-year standard for entry.

A Summary of Surveying Education's History – Civil Engineering started to drop surveying 50 years ago. After the "Grinter Report" was published in 1955, which said that engineering education should drop hands-on practical subjects, CE department chairs voted to implement the Grinter Report. They identified surveying as one of the topics to be dropped. During the 1960/70s when a tenured surveying professor retired, CE departments did not hire a surveying replacement. Today the "washout" is complete. If a CE school has a surveying course, it is usually taught by a grad student or part-time adjunct. ASCE's 2007 Body of Knowledge BOK does not contain the word surveying when referring to a discipline in CE.

A Separate Educational (and Professional) - The surveying profession then Identity proceeded to establish itself as a "free standing" discipline through the creation of (1) four-year programs, national academic (2)ABET accreditation, (3) uniform national exams through NCEES, (4) expansion of the legislative definitions of surveying, (5) creation of separate Boards for surveying, and (6) establishing legislation requiring four-year degrees.

National ABET Surveying Accreditation – In the late 1970s the American Congress on Surveying

and Mapping ACSM was named ABET "lead society" for surveying programs and published accreditation criteria. Cal. State Fresno was the first surveying program to be nationally accredited by ABET, 1979. A school must choose accreditation under one of three commissions EAC, TAC, ASAC, the Engineering Accreditation Commission for engineers, the Technology Accreditation Commission for 4-yr technologists and 2-yr technicians (defined by ABET as support personnel for the engineer), and the Applied Science Accreditation Commission for related professional areas not trying to be engineers or engineering technologists, such as surveying.

Academic Programs – The first dedicated 4-year surveying programs were established in the 1960s and 70s. As we enter the new decade, we have a total of 21 accredited surveying programs spread between all three ABET commissions and distributed across the country. About 10 fouryear surveying programs across the country are currently developing and moving toward ABET Medium or smaller population accreditation. states cannot support a surveying degree program instate. States such as Louisiana, Kentucky, and Illinois have moved to the Bachelor Degree (any subject) + Surveying Core (24 - 30 hrs typical) as a way of having a four-year standard without an accredited in-state program. A 4-year degree in some subject is broadly available. The surveying core can be delivered locally or by distance education.

NCEES National Surveying Exams – Professional Progress – In 1975, NCEES produced the first national SIT exam followed by the PS exam. Surveyors continue to meet twice a year in Clemson to write questions and assemble exams. Early exams were "task based" to match the hands-on nature of experience-only candidates. In1999 the October exam moved to a "knowledge based" exam, attempting to test the underlying knowledge, not the button pushing tasks. Future exams may move more toward a "curriculum base."

(Continued on page 16)



SURVEYING THE ISLAND IN 1909

Since all of the readily available technical information pertaining to the island survey appears in the transcribed field notes, they are the foundation from which we extract the legacy. They begin with a detailed description of the instrument and the adjustment test performed before commencement of the actual survey. We read:

"... executed with a W. & L. E. Gurley engineers transit No. 17 with two opposed verniers to horizontal limb reading to single minutes, latitude arc with single vernier reading to single minutes and solar attachment with vernier to declination arc reading to 30" of arc.

"On Nov. 27th I carefully adjusted the transit and tested it on a true meridian at Thermopolis, Wyoming, established by me in Sept. 1907 by observations on Polaris and found it correct."

July 2010

730 · 20' W

The survey was performed on the following Monday, November 29th, 1909, by a threeman crew consisting of U.S.D.S. Midthun and two chainmen, William H. Perry and Erwin A. Froyd.

The notes provide full а description of the survey methodology; sequence and beginning with retracement of the range line for one mile, then the resurvey for establishment of the quarter section corner and two meander corners on the island, and finally the meander traverse of the island including

"...*center of R.R. embankment 7 ft. high...*" I have no doubt they finished late in the day, dog-tired but fulfilled, after triangulating across two river channels, chaining up a rocky ridge 150 feet high, marking three corners with monuments and accessories and meandering 45.53 chains through the dense undergrowth of willows.

From those notes we know when, where and how they began that day: "...*at* 8^{30} *a.m. at the corner of Sections* 19, 30, 24 *and* 25...*a sandstone firmly set in the ground and marked and witnessed as described*...I *set off* 43°41' *on latitude arc and* 21°23'30" *S*. *on declination arc and determine meridian*. *North between Sections* 19 *and* 24. *Over rolling land*, *descending*..."; what they encountered "...29.40 *chains Right bank of right hand channel of Big Horn River - Meander Corner sandstone set firmly in the ground and marked and witnessed as described*..."; and how they crossed the river "...I *set a flag on left bank of right hand channel...and measure a baseline* 4.00 *chs*. *East to a point whence the flag bears N*. 30°20' W...", followed by the trigonometric computations to determine the 6.84 chains across said channel; to what they set, "...*a sandstone* 17 *x* 8 *x* 6 *ins*. 12 *ins*. *in the ground for meander corner*...*marked M C on S face T* 43 *N on N*. *face R* 94 *W S*.19 *on E*. *face R* 95 *W S* 24 *on W*. *face* , *dig a pit* 36 *x* 36 *x* 12 *ins*. 8 *feet N*. *of stone and raise a mound of earth* 4 *feet base and* 2 *feet high N*. *of corner*..."; and with reference to difficult terrain, "...60.00 *chains Foot of rocky Bluff...63.70 chains Top of rocky ridge* 150 *feet high*...*descending* 80.02 *chains A sandstone set firmly in the*

ground. The corner for Sections 18, 19, 24 and 13...marked and witnessed as described by the Surveyor General."

The format of the field notes was developed by the General Land Office long before this survey and continues to the present time with the Bureau of Land Management Cadastral Survey. Originally written longhand, in cursive rather than printed style, and bound into sewn books, they are now prepared using computers and word processing software.

732 Retracement E. bely

Township Nº43 North, Range Nº95 West



LEGACY BY MEASUREMENT

Regarding the 1909 survey's accuracy and precision, consider these facts:

a) the latitude of the south section corner, set into the "single minute vernier" solar attachment as 43°41' (N) has been observed by GPS methodology as 43°40'22.8839" N, NAD 83(93);



b) the bearing and distance between the two section corners, returned as North, 80.02 chains (5,281+ feet) has been observed by GPS methodology as N 0°05'18" W, 5,270.3 feet, NAD 83(93). Noting that this line required two indirect (triangulated) river crossings and an incline of 60% in less than 4 chains, and remembering the difficulties of similar measurements I have made with transit and steel chain in the 1960s, I am deeply appreciative of their efforts and results a half century earlier.



of the Sixth Principal Meridian, Wyoming

LEGACY BY EXAMPLE

While we often speak of "following the footsteps of the original surveyor", using that statement as the keystone for proper retracement technique, we sometimes under rate the technical and logistical conditions under which the original survey was executed. From the early 1900s until the early 1970s, nearly all boundary surveys were performed using transit and chain or theodolite and steel tape by the traditional three-man crew. As the technology evolved we were able to measure across rivers and canyons and up and over steep bluffs electronically, and to obtain solar observations with a precision of arc seconds rather than minutes, usually with a two-man crew. Currently most of us rely upon the global positioning system for the survey measurements of most of the retracement and partition surveys we perform, often working alone. In similar fashion, we now depend upon computers and software and plotters to compute and draft the results of our preciselymeasured field work.

Ultimately however our responsibility as professionals, to the welfare of the public, rests with the accuracy, not the precision, of Proper research, monumentation and our cadastral surveys. documentation, enhanced by reliable measurements, are as necessary today as they were when Od Midthun and his crew surveyed Willis Island in 1909. We are able to follow where they went and what they did through the continuity of reliable technique, durable monumentation and adequate documentation. These practices are the foundation of the legacy to be perpetuated, by each of us, for those who will follow and depend upon the quality and thoroughness of survey research, monumentation, our documentation and measurements.

A CALENCE AND A CALENCE AND

the island is a gravel work covered by a overe fing aluvial reach very fortile and is partly Covered by aduge under routh of willouts, these are alles a few cotton wood trees on the land, The surface is smooth and benel. States Deputy Currey.



Next Time: PART III – THE CENTENNIAL SHORT STORY Previous (April 2010, V21-1): PART I – A CAPSULE OF HISTORY

The Judicial Functions of Surveyors Thomas McIntyre Cooley 1824 - 1898

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

Part II – Introduction

Judge Thomas M. Cooley was a member of the Michigan Supreme Court, and twice 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; 1954) 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 considerable files of 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 Land 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 methodology employed in the contract The volume refers to the Oregon surveys. 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 The 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.

Next Time: PART III – Justice Cooley's Remarks Previous (April 2010, V21-1): Part I - Biographical Sketch

July 2010

The Tanks

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(Continued from Page 5)

Just as state issues do, national issues touch all surveyors. Public, private, topographic, boundary, layout and many others all have national tones. ALTA standards, Qualification Based Selection, academic accreditations, real estate settlement survey issues, GPS height modernization, letters of map amendments (LOMAs) and many more issues are all dealt with at the national, not the state or local level.

These issues won't go away and some organization will deal with them nationally for the

surveying community. The question is which one? The American Society of Civil Engineers, the American Council of Engineering Companies, the American Society of Photogrammetry and Remote Sensing, the Management Association of Private Photogrammetric Surveyors or a true national voice of the Surveying Profession. This is the question being dealt with today and over the next several months. There will be many opportunities for input and when they present themselves, take the time to share your input and counsel. Together, the result will be the best option possible for the entire surveying profession.



NEWS

The official cadastral surveys in Wyoming that have been accepted from October 1, 2009 through March 29, 2010, and have been published to BLM Wyoming's Cadastral Survey website.

Township and Range	<u>Type of Survey</u>	<u>Meridian</u>	<u>Accepted</u>
T. 54 N., R. 79 W.	Dependent Resurvey	6 P.M.	10/09/2009
T. 54 N., R. 79 W.	Supplemental Plat	6 P.M.	10/09/2009
T. 18 N., R. 92 W.	Dependent Resurvey	6 P.M.	10/09/2009
T. 16 N., R. 86 W.	Dep. Res. & Subd.	6 P.M.	10/09/2009
T. 28 N., R. 108 W.	Dependent Resurvey	6 P.M.	01/07/2010
T. 20 N., R. 102 W.	Dep. Res. & Metes & Bnds.	6 P.M.	01/07/2010
T. 21 N., R. 102 W.	Dep. Res. & Metes & Bnds.	6 P.M.	01/07/2010
T. 2 N., R. 5 E.	Supplemental Plat	W.R.M.	01/07/2010
T. 41 N., R. 117 W.	Dep. Res. and Surv.	6 P.M.	01/13/2010
T. 13 N., R. 77 W.	Dep. Res. & Subd.	6 P.M.	01/13/2010
T. 55 N., R. 79 W.	Dependent Resurvey	6 P.M.	01/13/2010
T. 12 N., R. 82 W.	Dep. Res. & Subd.	6 P.M.	01/13/2010
T. 13 N., R. 82 W.	Dep. Res. & Subd.	6 P.M.	01/13/2010
T. 17 N., R. 95 W.	Dependent Resurvey	6 P.M.	01/13/2010
T. 52 N., R. 94 W.	Dependent Resurvey	6 P.M.	01/13/2010
T. 55 N., R. 79 W.	Supplemental Plat	6 P.M.	01/13/2010
T. 29 N., R. 108 W.	Dependent Resurvey	6 P.M.	03/29/2010
T. 29 N., R. 109 W.	Dependent Resurvey	6 P.M.	03/29/2010
T. 29 N., R. 110 W.	Dependent Resurvey	6 P.M.	03/29/2010
T. 29 N., R. 84 W.	Dep. Res. & Subd.	6 P.M.	03/29/2010
T. 29 N., R. 85 W.	Dep. Res. & Subd.	6 P.M.	03/29/2010
T. 30 N., R. 85 W.	Dep. Res. & Subd.	6 P.M.	03/29/2010
T. 41 N., R. 117 W.	Supplemental Plat	6 P.M.	03/29/2010

Copies of these images can be viewed or printed from this website: http://www.wy.blm.gov/cadastral/plats10.php

PUBLIC LAND SURVEY SYSTEM CELEBRATES 225 YEARS!



Pictured left to right: Kim Crawford, John Lee, Norman Ames, Charlie Doman, Krissy Jacob, Joel Ebner, and Charles Anderson

On Thursday, May 20, 2010, the Bureau of Land Management's Cadastral Survey staff at the Wyoming State Office celebrated 225 years since the Land Ordinance of May 20, 1785. The Continental Congress adopted this ordinance establishing the Public Land Survey System (PLSS) to aid in the disposal of public domain lands. Since that time, almost 1.3 billion acres of public land have been transferred out of the Federal government's ownership. In Wyoming, over 60 million acres have been surveyed and the BLM still manages 18.3 million acres, all of which are defined by the Public Land Survey System.

The celebration was held in a conference room at the BLM's Wyoming State Office in Cheyenne. The Cadastral Survey staff gave several short presentations about the PLSS, survey equipment and their current work. They also had a survey equipment and monument display. Approximately fifty people attended the celebration and shared a birthday cake with the Cadastral staff.

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HAPPY 99th BIRTHDAY to LLOYD BARKER!

Lloyd was born on May 17, 1911 in Afton, Wyoming. Read more about Lloyd's life and long career in the November, 2009 issue of Lines and Points.

In Memoriam -

-

Robert "Chic" Allen Chichester, PLS 497 September 27, 1928 – February 17, 2010



Chic was born in Pittsburgh, PA to Harold and Haxel Chichester, and moved west to Colorado in 1949.

Chic was a jack of all trades. He worked with cars, ran a gas station, plowed snow, was a draftsman and teacher, but the passion of his life's work was being a professional surveyor. Like almost everything he took on, he did his utmost best to be a good surveyor, support his profession and advance his own knowledge as well as the knowledge of others about his craft. Chic was one of the founders of the PLSC and a former President. He was also a delegate to the Western Federation of Professional Surveyors for many years. He was the founder of Contract Surveyors, Ltd.

He was just as passionate about how he spent his free time. Jeeping in Colorado and Utah was his favorite thing to do, especially if he could combine it with camping and fishing. He bought a bike when he was in is 70's so he could ride with is grandchildren and he loved to ride down (only down) Vail Pass and into Frisco.

Chic is survived by his wife, Pat; children, Debbie Moyer of Florida, John Chichester of Leadville and Kathie Chichester of Denver; and grandchildren, Tara, Erik, Caitlin and Sarah.

Robert Milo Stollard, PLS 2789

September 26th, 1929 to April 7th, 2010



Robert "Bob" died peacefully on April 7th 2010. Bob was born in Omaha, Nebraska on September 26th 1929. He married Ida Louise Graves on August 5, 1951 and they moved to Colorado Springs in August, 1952. Bob continued his education in Land Surveying and received his Certificate of Registration in Wyoming in 1957 and then in Colorado in 1958.

In April 1962 they moved to Denver and he worked for J. W. Williams Engineering and Associates until 1974. He received his Bachelor of Science at the University of Colorado in 1973 and became a teacher from 1974 to 1976. Bob worked for Hutchinson Homes, doing surveying from 1976 to 1981. In 1982 he worked for the Jefferson County Mapping Department and retired in 1996. Bob served on the PLSC board of directors and was a former president of the PLSC. He loved going to conferences to be with close friends and to learn and share with fellow surveyors. More recently, he enjoyed many years of doing missionary work for his church. He assisted refugee families from Burma, Bosnia and the Congo, helping them find

housing and medical care. He hosted foreign students at his home, enjoyed his Kiwanis group and delivered meals on wheels.

Bob leaves behind his loving children Dale Stollard, Durwin (Diane) Stollard and Deanna (Steve) McKay, grandchildren, Amberlee Stollard, Shawn and Christa McKay and sister Shirley (Dick) Beck and first cousin Lucy (Tom) Murch and Sharon (Dave) Weddle.

Francis J. Thornton, PELS 333

February 20, 1920 - May 1, 2010

Francis J. Thornton, 90, of Cheyenne died May 1 at Davis Hospice Center. He was born Feb. 20, 1920, in Thermopolis and had lived here since 1954.

He served in the U.S. Army during World War II. He worked as a civil engineer for the State of Wyoming highway department and retired in 1980 after 27 years of service. Mr. Thornton was a member of First Methodist Church, past president of the Cheyenne Engineers Club, Scottish Rite Masonic Lodge, Moose Lodge No. 257, the Shrine Club and was "TonTon" in the Shrine Clowns.

He is survived by his wife, Jimmie L. Thornton of Cheyenne, whom he married May 28, 1949, in Laramie; one son and daughter-in-law, Stuart Jay and Delma Thornton of Arvada Colo.; one grandson, Joel Thornton of Cheyenne and one great-granddaughter, Mallauri Thornton of Cheyenne. Mr. Thornton was preceded in death by his parents, Leonard and Grace Thornton; three brothers, one sister and two grandchildren.

Memorial services were held at Weiderspahn-Radomsky Chapel of the Chimes with the Rev. Elizabeth McBicker officiating. The Masonic Rites were provided by the Cheyenne Scottish Rite Rose Croix Team. Honorary pallbearers were Bill King, Ed Fry, Joe Harrell, Pidge Johnson and Ron Sargent. Military honors were provided by the American Legion Honor Guard. Cremation has taken place at Cheyenne Memorial Gardens.

Friends may contribute to the Cheyenne Shrine Club Travel Fund, P.O. Box 20826, Cheyenne, WY 82003

(This was a paid obituary previously printed in the Wyoming Tribune-Eagle, page A5, 5/4/10)

(Continued from Page 6)

The Legislative Approach to the 4-Year Degree Requirement – In 1972 Michigan was the first state to delete the experience method, requiring a four-year degree. By 2010 over half of the U.S licensing jurisdictions (a total of 27) have deleted the experience-only method of licensure. Nineteen (19) have specified a minimum four-year degree, seven (7) others require a minimum two-year degree, and one other requires 20 hrs of surveying coursework but no degree.

Expanding the Scope of Surveying - Creating a Diverse Profession - Before the 1970's most state statutes defined "Land Surveying" as boundaries only, an important but small part of the total surveying discipline. Many state practice acts now have a greatly expanded definition- a surveyor "determines and displays the facts of size, shape, topography, etc." State societies changed their names from "society of land surveyors" to "society of surveyors". ACSM created the NSPS from the previous Land Surveys Division. In 1995 NCEES model law changed to reflect a broad practice including photogrammetry. In 2005

NCEES dropped the word "land" from its Model Law and Code.

State Regulation and Licensure DOES NOT Mean Professional Status, Just Public Protection -- In the US, surveying has had a history of causing high profile public damages -- California 1890s Mining Claims, Florida's 1920s Swamp Land plats, etc. Regulatory practice acts were put in place to protect the public. However, each state regulates MANY occupations that are not close to professional recognition (plumbers, barbers, etc). Licensure by itself does not indicate professional recognition.

The Great Roadblock – The Apprenticeship System -- Learned professions don't elevate the working support staff (technicians) to professional rank. There must be two distinct sources of employees and two distinct paths to credentials. The professional tract recruits from college-capable young high school people, and these then go to college for their professional education. This means that we should not be thinking of our current technicians as our future professionals.

A "Learned Profession" With a College Base -A learned professional must have the ability to speak confidently, write authoritatively, research published information, analyze issues, and apply math and science when needed. A learned profession is one where these things cannot be "learned on the job." Public protection also comes from college admission and completion of a college program, not an exam only. Other learned professions pass their professional exams at a high rate because they were highly selected by (1) college admissions and (2) completing the required professional program. In these professions, the exam is a way of assessing which school is doing a good job and to catch the "marginal" end-runners.

Conclusion - The surveying profession has made great progress since the 1950s toward professional distinction and recognition. However, the lack of a national four-year degree entry standard is slowing the progress greatly. Hopefully, we can get past this phase and proceed to greater public protection and recognition.



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The editorial committee would like to extend our deepest condolences to Herb Stoughton on the passing of his mother.

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