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LINES & POINTS

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On The Cover

BLM GPS RECEIVER
COLLECTING DATA DURING THE
DEVILS TOWER SURVEY.

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For more information please contact Jack Studley.

PLSW (Professional Land Surveyors of Wyoming; PO Box 725, Afton, WY 83110) is a statewide organization of Land Surveyors registered 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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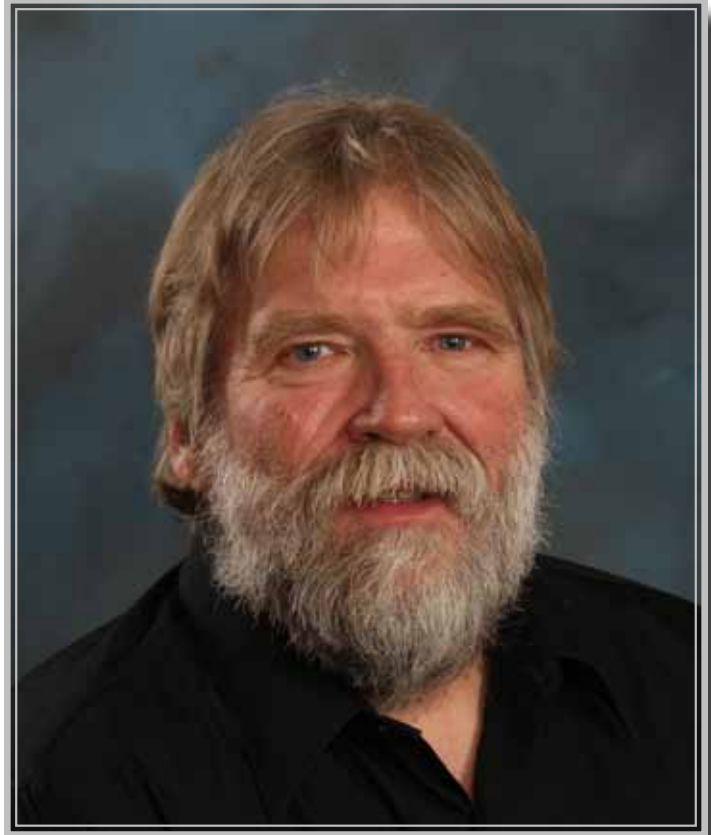
Greetings, Fellow members of PLSW:

As this is my first message to the PLSW membership, let it be known that I am very honored and humbled to serve as your President. I will do my level best to serve this organization as well as those who have preceded me in this position. I hope that I am able to provide positive guidance to the organization over the next year and as always, am looking for input from all of our members. I would like to give a special thanks to Marlowe Scherbel for his dedication and professionalism while providing his service as Secretary/ Treasurer during the last, at least, 10 years. Thanks also go to Jack Studley for being elected to fill the Secretary/Treasurer position, Karl Scherbel for being elected your President-Elect, and to all of the Chapter directors and officers, the NSPS Governor, the West FED delegate and the members of the Wyoming Board of Registration for PE and PLS. This organization has and will continue to be successful with this entire group of leadership and support from the membership.

I hope that those of you that attended the recent WES convention in Sheridan enjoyed the presentations and were able to catch up on things with old, and new, friends from across the state. Thanks to George Dale and the NE Chapter for putting together a fine program for the surveyors. I especially enjoyed the presentation by Pam Fromhertz, NGS, Colorado State Advisor. She provided good instruction on where to find things on the NGS website and tools that can be used on a regular basis. She also discussed National Surveyors Week and Surveying the Earth in a single day. These events have already taken place in March, so I commend those of you who participated and encourage more to participate in years to come.

There are several things that are already in motion for the coming year. First of all, the Board of Directors are planning to prepare amendments to the By-Laws for a few minor changes. The By-Law Committee and the SE Chapter have worked together to determine changes needed for clarification. Second, the West Chapter has prepared a Resolution regarding destruction of monuments, which is posted on the plsw.org Home page, and hope to introduce legislation during the 2017 session. I encourage the entire membership to view the draft document and provide feedback and questions to Karl Scherbel (email address is posted along with the document). Third, thanks to Shannon Stanfill, Executive Director of the Board of Registration, who has formed a committee that includes members of her staff and a representative of each of the PLSW Chapters. They have met by teleconference and have discussed ways to reach kids to inform them about the Land Surveying profession. Advertisements have been placed in several newspapers around the state and presentations have been scheduled around the state with Boy Scouts and Girl Scouts. Governor Matt Mead signed a proclamation that March 21-26, 2016 is Wyoming Surveyor's Week, to coincide with National Surveyors Week.

PRESIDENT'S MESSAGE



How many times have you been stumbling through the brush only to find a survey monument that you didn't know existed? What a nice surprise! Wouldn't it have been nice if you had been able to go to the court house and look through the records and files to find maps that would have lead you right to the monument that you need for the survey you are doing. I understand that some time ago, there was an attempt by PLSW to require survey plats to be filed or recorded. I hope that there is enough interest in the membership to support this issue now. I believe that this is an element of protecting the public, which we as land surveyors are sworn to uphold.

Let us take time once again to remember those of our profession that were lost in the last year: Paul N. Scherbel, James Greer and Maurice Zardus. These men spent the majority of their lives as Professional Land Surveyors and represented our profession honorably. They will be missed.

Well, Spring may be just 'round the corner, but we all know that Winter can rear its ugly head at just about any time here in Wyoming. It's probably not behind us just quite yet, but we all are looking forward to warmer days, a little bit of mud and a prosperous year.

Randy Stelzner, P.L.S., CFedS

President, Professional Land Surveyors of Wyoming

Cursed is the man who moves his neighbor's boundary stone. Then all the people shall say, Amen! Deuteronomy 27:17

ANNOUNCEMENTS



Wyoming Surveyors Week March 21-26, 2016

On March 14, 2016, Governor Mead signed a proclamation declaring March 21-26, 2016 Wyoming Land Surveyor's Week. The week is a launching point for the statewide PLSW Outreach Effort. This is a coordinated effort with the Board of Professional Engineers and Professional Land Surveyors. It was initiated as a way to encourage youth, grade school and above, to seek a career in land surveying. This effort will match professional land surveyors with youth organizations across Wyoming. The presentations will incorporate STEM based learning and hands-on activities. Presentations are available on a year-round basis. Youth organizations can schedule a visit by contacting the Board at (307) 777-6156 or troy.niesen@wyo.gov.

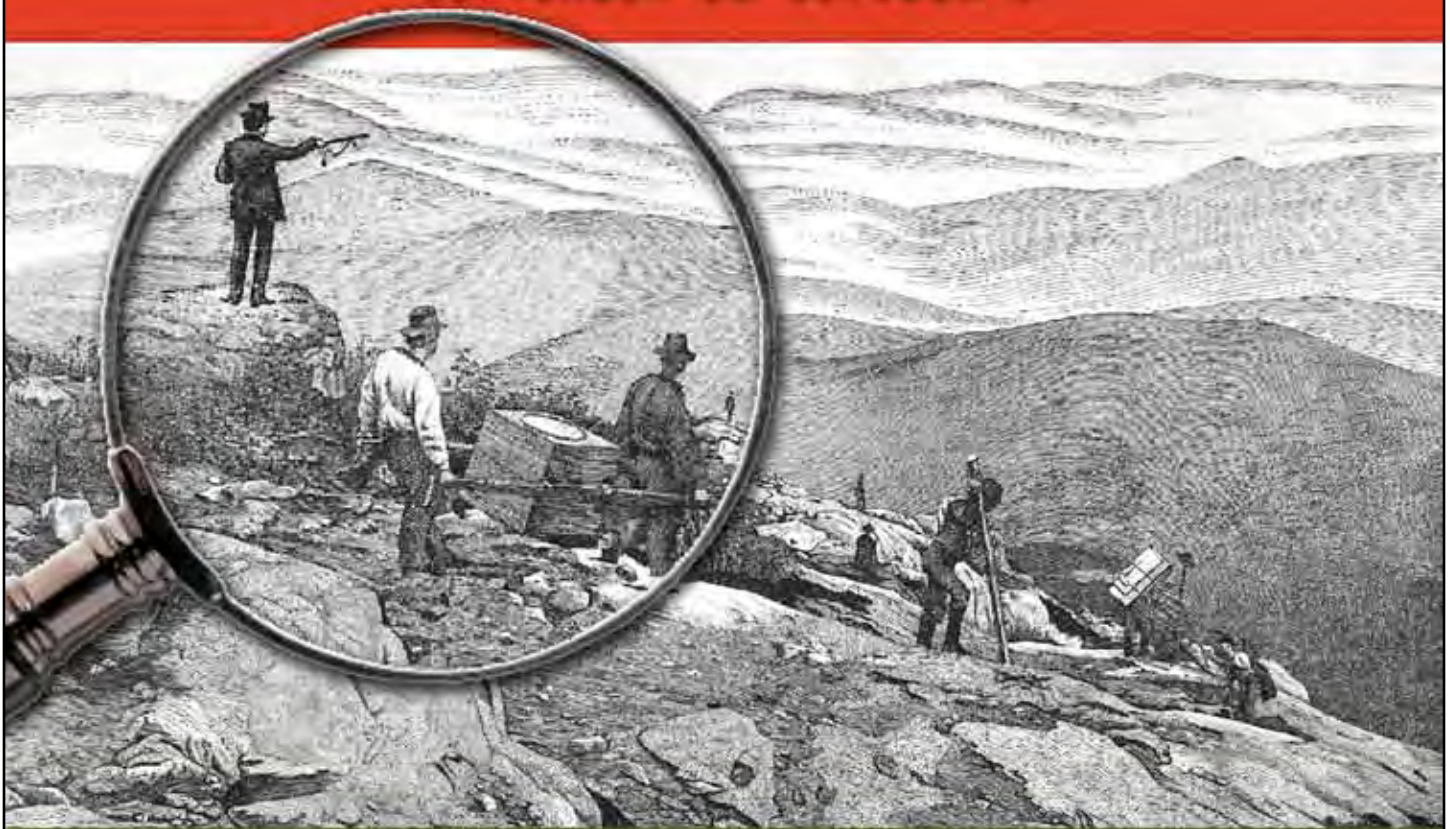
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James Edward Greer



23 May 1929 -
19 January 2016

James (Jim) Edward Greer, the son of Martha and Clarence Greer was born in Kansas City, Kansas, on 23 May 1929. Between 1941 and 1946, Jim attend high schools in Limon, Colorado, and Norman, Oklahoma. In September 1950, he enlisted in the Marine Corps, and served in Korea during the Korean War. After his discharge, he earned a Colorado G.E.D., and enrolled at the University of Colorado (Boulder), earning a bachelor of arts degree in geology in 1958.

For the next year he held various non surveying positions, until he was appointed as a photogrammetric aid compiling contours and planimetry from aerial photography with the multiplex stereo-plotter at the Topographic Division of the U.S. Geological Survey (May 1959) [Rocky Mountain Ctr.; Denver]. In October 1959, he was promoted to a cartographic aid and performed plane table surveys supporting the national mapping program. In April 1960, Jim was promoted to a civil engineer aid, and executed all phases of field surveys required to support the photographic mapping of the topographic quadrangles. From May 1962 through September 1963, Jim was promoted and held several assignments as a party chief supporting field surveys for the USGS topographic mapping program.

For a brief time he was a photogrammetrist for the Denver mapping firm Ken R. White Co., compiling topographic maps for new highway construction employing the ER 55 (Balplex) stereo-plotter. He returned to the USGS in October 1964, performing all aspects of the field surveys for compiling and editing the topographic maps (until June 1969).

It was during this employment he met and married Charlotte Louise Basset (18 June 1966),

who survives. The couple had a son Jim Greer, II (married to Nedda); daughter Julie Howard; and daughter Janice Smith (married to Will), who survive. The couple have several grandchildren: Tyler Howard; Kaitlin Howard; Ally Smith; and Zack Smith. Jim was also survived by two sisters, Jerri Fowler and Sally Harrington.

In December 1969, Jim joined the Greeley, Colorado, firm of Nelson, Haley, Patterson & Quirk Consulting Engineers where he was a land surveying party chief. It was during this work assignment that Jim applied for and received his Colorado Professional Land Surveyor registration (No. 9911, issued 6 June 1970). Between August 1971 and July 1973, and January 1974 and August 1975, Jim was self employed in the Berthoud, Colorado, area. Between July 1973 and January 1974 was a land surveyor for the firm Hogan and Olhausen (Loveland, Colorado).

In September 1975, the Greers moved from Colorado to Wheatland, where Jim resided until his death. In November 1975, Jim applied to the Wyoming State Board of Examining Engineers for professional land surveying registration. In 1975, Jim formed Western Surveys, which continued in business until last fall.

Jim took an early interest in the Professional Land Surveyors of Wyoming. In 1981, Jim was elected the director representing the PLSW Southeast Chapter. At the 11 February 1982 PLSW Annual Meeting, the matter concerning the WACES manual of minimum standards was discussed. President John A. Steil appointed Jim and Maynard Johnson to review the matter. Through the years Jim held other offices in the Southeast Chapter. In 2003, Jim was elected Treasurer of PLSW, an office he held for two years.

Jim was an active member of the southeast chapter, even though it meant a 150 mile round trip drive between Wheatland and Cheyenne. He regularly attended the PLSW Annual Meetings, the surveying programs at the WES Annual Meetings, and the PLSW Fall Technical Sessions.

James Edward Greer loved the land surveying and mapping professions. His insights and penetrating questions and comments revealed a deep seated curiosity about the workings of the profession. Jim contributions to our profession were invaluable. We shall miss him.

James died on 19 January in Jackson, surrounded by his family. A celebration of Jim's life was conducted on 7 February at the First State Bank Conference Center in Wheatland.



BLM NEWS

This letter is to inform you of the official cadastral surveys that were approved in Wyoming in 2015 and have been published to BLM Wyoming's Cadastral Survey website. Copies of these images can be viewed or printed from this website:

<http://www.wy.blm.gov/cadastral/plats15.htm>

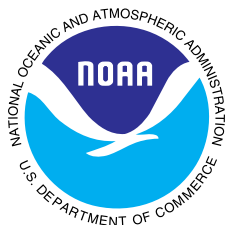
<u>Township and Range</u>	<u>Type of Survey</u>	<u>Meridian</u>	<u>Accepted</u>
T. 25 N., R. 119 W.	Dep. Res. & More	6 P.M.	02/26/2015
T. 26 N., R. 73 W.	Dep. Res. & Subd.	6 P.M.	02/26/2015
T. 29 N., R. 90 W.	Dep. Res. & Subd.	6 P.M.	02/26/2015
T. 30 N., R. 108 W.	Supplemental Plat	6 P.M.	02/26/2015
T. 40 N., R. 71 W.	Supplemental Plat	6 P.M.	02/26/2015
T. 51 N., R. 72 W.	Supplemental Plat	6 P.M.	02/26/2015
T. 1 N., R. 4 E.	Supplemental Plat	W.R.M.	03/31/2015
T. 22 N., R. 110 W.	Dep. Res. & More	6 P.M.	05/28/2015
T. 29 N., R. 99 W.	Dep. Res. & Subd.	6 P.M.	05/28/2015
T. 43 N., R. 78 W.	Dep. Res. & Subd.	6 P.M.	05/28/2015
T. 18 N., R. 89 W.	Dep. Res. & More	6 P.M.	05/28/2015
T. 33 N., R. 101 W.	Dep. Res. & Subd.	6 P.M.	05/28/2015
T. 16 N., R. 87 W.	Dep. Res. & Subd.	6 P.M.	05/28/2015
T. 31 N., Rs. 108&109 W.	Remonumentation	6 P.M.	05/28/2015
T. 1 S., R. 3 E.	Supplemental Plat	W.R.M.	07/13/2015
T. 35 N., R. 88 W.	Supplemental Plat	6 P.M.	07/13/2015
T. 23 N., R. 110 W.	Dep. Res. & Subd.	6 P.M.	09/08/2015
T. 56 N., R. 97 W.	Dep. Res. & More	6 P.M.	09/08/2015
T. 12 N., R. 117 W.	Dep. Res.	6 P.M.	09/08/2015
T. 19 N., R. 85 W.	Dep. Res. & Subd.	6 P.M.	09/08/2015
T. 1 N., R. 4 E.	Corrective Res.	W.R.M.	09/08/2015
T. 13 N., R. 84 W.	Dep. Res. & Subd.	6 P.M.	11/18/2015
T. 14 N., R. 84 W.	Subd.	6 P.M.	11/18/2015

LINES AND POINTS ARTICLE ROTATION SUBMISSION SCHEDULE BY CHAPTER

<u>Responsible Chapter</u>	<u>First Call Date</u>	<u>Last Call Date</u>	<u>Publication Date</u>
Southeast Chapter	THANK YOU!! (SEE "BLM WYOMING SURVEYS DEVILS TOWER" IN THIS ISSUE)		
Laramie Valley Chapter	June 1	June 15	July 1, 2016
Upper Platte Chapter	September 1	September 15	October 1, 2016
Southwest Chapter	December 1	December 15, 2016	January 1, 2017
Northeast Chapter	March 1	March 15	April 1, 2017
Northwest Chapter	June 1	June 15	July 1, 2017
West Chapter	September 1	September 15	October 1, 2017
Central Chapter	December 1	December 15, 2017	January 1, 2018

Your NAD 83-Based State Plane-Legislated Coordinates **Will Not Be Maintained** after 2022!

What will you and your fellow professionals do? Panic? Ignore the Issue? **or Act?**
Please let us know!



What is changing?

The North American Datum of 1983 (NAD 83) will be replaced in 2022. The new datum will have a different name.

The North American Vertical Datum of 1988 (NAVD 88) will also be replaced in 2022. Its replacement will also have a new name.

Expected horizontal shifts from NAD 83 to the new datum are in the 1-2 meter range. The National Geodetic Survey will provide a coarse, map-grade transformation tool (such as NADCON and GEOCON) to connect NAD 83 with the new datum.

Who will be affected?

All states and territories will be transitioned to the new datums.

Forty-eight states have a state-specific coordinate system law tied to NAD 83.

Your state law will not reflect the National Spatial Reference System after 2022.

Who can help?

The National Geodetic Survey (NGS), the National Society of Professional Surveyors (NSPS), and the American Association for Geodetic Surveying (AAGS) are here to help your state make these changes in legislation!

You can help by understanding your own state's laws and how these changes will impact you.

Should you change or modify your state law?

NGS, NSPS and AAGS believe it would benefit state surveyors and mapping professionals for laws or regulations to reflect the latest federal geodetic infrastructure, namely the **National Spatial Reference System**.

Why should you change or modify your state law?

1. Federal agencies will adopt the new datum, so national products such as **Federal Emergency Management Agency (FEMA) flood insurance rate maps** will no longer reference NAD 83, nor NAVD 88. Using the **most current datum** will avoid confusion and increase consistency with federal engineering or constructions projects.

2. Federal resources will no longer be used to maintain or correct issues with data on superseded datums. **Instead, NGS will be focusing on supporting users of the updated National Spatial Reference System (NSRS).**

3. More geospatial data is being collected and shared every day. A consistent and regularly updated NSRS will provide greater efficiency across surveying and mapping sectors.

What do you think?

We welcome your feedback! Please provide any feedback you like to one of our committee members, below.

NSPS/AAGS/NGS Advisory Committee on National Spatial Reference System Legislation

J.B. Byrd	NSPS	jbyrd@jmpa.us
Dave Doyle	NSPS	base9geodesy@gmail.com
Christine Gallagher	NGS	christine.gallagher@noaa.gov
Knud Hermansen	NSPS	knud201@gmail.com
Dru Smith	NGS	dru.smith@noaa.gov
Pat Smith	NSPS	PSmith@sam.biz
Herb Stoughton	AAGS	hws.geod.engr@gmail.com

COMMON RESEARCH MISTAKES SURVEYORS MAKE

PROBATE RECORDS

by Knud E. Hermansen †
P.L.S., P.E., Ph.D., Esq.

In previous articles I have explained four of the five common mistakes made by surveyors in researching the records. In the first article I discussed mistakes made in determining senior title often required when assessing the boundaries resulting from an overlap. In the second article I explained the deficiency existing when a forward search is omitted. In the third of five common mistakes I explained the necessity for researching the road records. In the fourth article I discussed the deficiency in researching and identifying easements. In the final article, I will discuss probate records.

Some surveyors have gone their entire career without ever researching property records that may be found in the office of the probate court (also known as “family,” “surrogate” or “orphans” court).

Probate records will often contain maps of the decedent’s property and descriptions of the property that are not found in the deeds. In some states, partition maps dividing up a decedent’s property among the heirs or devisees are filed in the probate records and are found nowhere else.

Also, it is not uncommon for boundary surveys of the decedent’s property to be among the decedent’s estate documents and can now be found in the probate records. As a consequence, many surveyors have overlooked valuable boundary information that is only available in the probate office.

In defense of those surveyors that have avoided performing research in the probate office, pertinent records are often extremely difficult to identify from the indices in the probate office.

For example, if the deed recites: “Being the same property Christina Small inherited from her father,” the researcher faces a difficult time finding the appropriate probate records for Christina’s father (assuming the father’s property passed through probate).

Probate records are typically indexed by the decedent’s name. Consequently, if Christina Small is her married name, the researcher would not know the decedent’s last name needed to enter the probate index.

Another problem that often arises with probate records is the difficulty in looking at the decedent’s documents. While most registry of deeds attempt to make all records available for viewing, the probate office lacks that same goal. The chances are that the probate records will never be examined once they are filed and the estate closed. Accordingly, why attempt to store the records as if these records were to be examined frequently.

Describing typical weaknesses in the surveyor’s record search will not necessarily convince surveyors to undertake the tedious and time consuming research necessary to overcome the limitations that were explained. At the very least, the surveyor should inform the client of the deficiency in the research so the client can pay to have the deficiency eliminated or understand the potential deficiency in the research.

† Knud is a professor in the surveying engineering technology program at the University of Maine. He offers consulting services in the area of boundary litigation, title, easements, land development, and alternate dispute resolution.

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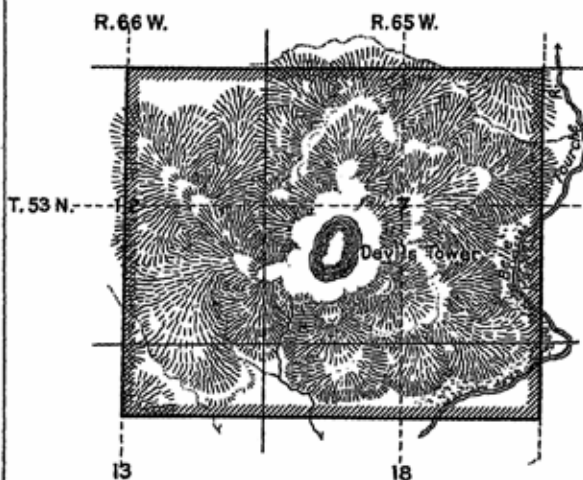
Topcon's Construction Dealer of the Year

BLM Wyoming Surveys Devils Tower

by John Lee, PLS
Chief Cadastral Surveyor
Wyoming State Office

DEVILS TOWER NATIONAL MONUMENT,

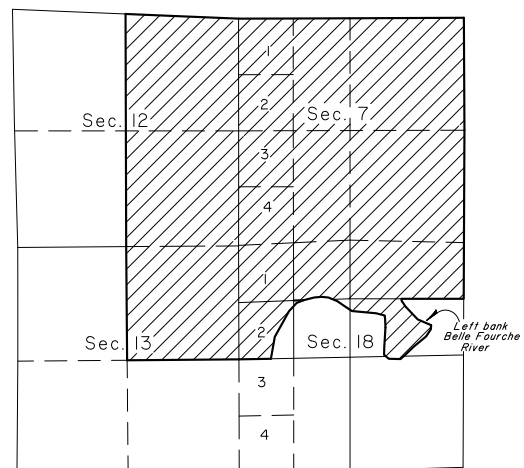
Embracing Sec. 7 and the N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$, the N.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ and Lot No. 1 of Sec. 18 in T. 53 N., R. 65; the E. $\frac{1}{2}$ of Sec. 12 and the N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ of Sec. 13 in T. 53 N., R. 66, all West of the 6th Principal Meridian,
WYOMING,
Containing 1152.91 acres.




DEPARTMENT OF THE INTERIOR,
GENERAL LAND OFFICE,
Wm. A. Richards, Commissioner.

[MAP ATTACHED TO AND MADE A PART OF THE PROCLAMATION
DATED SEPTEMBER 24, 1906.]

T. 53 N., Rs. 65 & 66 W.
6th Principal Meridian, Wyoming



 = Devils Tower National Monument Boundary

Wyoming's Branch of Cadastral Survey had a unique opportunity this past summer. They were hired by the National Park Service (NPS) to perform a Cadastral (boundary) survey of north, east, south and west boundaries of the Devils Tower National Monument. NPS was a little unsure of where their legal boundaries were.

Devils Tower was designated a National Monument by President Theodore Roosevelt in September, 1906. This was the first use of the American Antiquities Act passed by Congress in June, 1906.

The proclamation states:

And, whereas, the lofty and isolated rock in the State of Wyoming, known as the "Devils Tower," situated upon the public lands owned and controlled by the United States is such an extraordinary example of the effect of erosion in the higher mountains as to be a natural wonder and an object of historic and great scientific interest and it appears that the public good would be promoted by reserving this tower as a National monument with as much land as may be necessary for the proper protection thereof;



View of the Belle Fourche River valley below Devils Tower taken during the BLM's Devils Tower Survey.

The township Devils Tower is located in (T. 53 N., R. 65 W.) was originally surveyed in 1882 by W.F. Benson, U.S. Deputy Surveyor. The only reference Benson made to the tower was located in the General Description at the end of his field notes where he simply states "A prominent land mark is a high peak in Sec. 7 called the Devils Tower".

The township was dependently resurveyed in 1913 by Wilford W. Utterback and Mark M. Kelley. The General Description in their field notes provided a more detailed description of the tower:

Devil's Tower, in sec. 7 is one of the most prominent natural landmarks in the state. By proclamation dated September 24, 1906 it was made a National Monument, embracing sec. 7 and N $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$, and lot 1, sec. 18, this township, and the E $\frac{1}{2}$ sec. 12, and N $\frac{1}{2}$ NE $\frac{1}{4}$ sec. 13, of T. 53 N., R. 66 W. The Tower stands in the NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7. It is a monolith the frustrum of a cone in shape, with columnar structured exterior, towering almost

perpendicular to a height of eight hundred feet above the pine clad hills on which it is situated, the elevation of its top being twelve hundred feet above the bed of the Belle Fourche River. Its circumference at the base is 35.00 chains, and at the top about 14.00 chains. The top is practically level with an area of approximately one and a half acres.

The new survey will be a federal authority resurvey of the perimeter of the monument. This survey will allow the Devils Tower National Monument staff to properly manage park resources, identify where the boundary fence should be located and work with neighboring landowners on wildlife migration and cattle trespass issues. It will clearly identify the boundary in areas where it has been unclear in the past.

This work was performed by a 2 person crew in about 4 weeks. It involved recovering survey monuments set in 1913 and 1915 and setting new monuments to subdivide sections. New boundary signs were also installed along each boundary line so that the boundaries are now clearly identified.



James Jacob, BLM Cadastral Surveyor, measures a point during the Devils Tower survey.



BLM Wyoming's John Lee, Chief Cadastral Surveyor, stands next to a newly set survey monument on the slope below Devil's Tower.



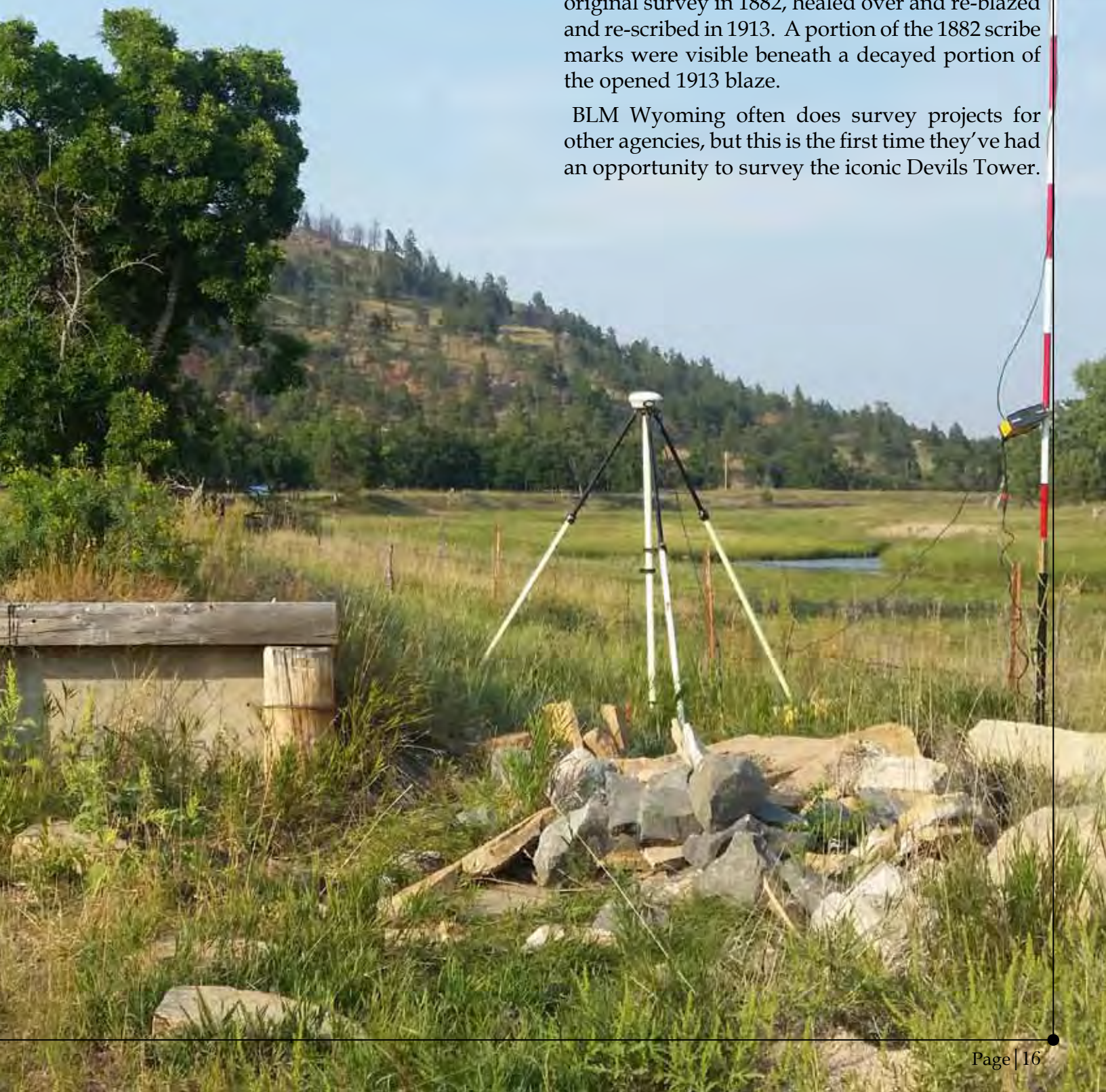
James Jacob, BLM Cadastral Surveyor, setting up his GPS equipment at the beginning of the day.

The original proclamation reserved 1,152.91 acres of land. The south and west boundaries had been surveyed prior to the designation. Additional legislation in 1955 authorized the NPS to exchange land to expand the monument on the south boundary. This added a very nice piece of land along the left bank of the Belle Fourche River but there is some uncertainty as to the location of the boundary. The 1955 legal description includes

language calling for “those parts lying north of and within a loop of the left bank of the Belle Fourche River” and “that part lying west of the left bank of the Belle Fourche River”. Determining the location of the boundary along the “left bank” of the river was one of the primary reasons the NPS requested the survey.

One of the more interesting recoveries during the survey was that of a double marked bearing tree. The tree had been blazed and scribed during the original survey in 1882, healed over and re-blazed and re-scribed in 1913. A portion of the 1882 scribe marks were visible beneath a decayed portion of the opened 1913 blaze.

BLM Wyoming often does survey projects for other agencies, but this is the first time they’ve had an opportunity to survey the iconic Devils Tower.



Double marked bearing tree recovered during the BLM survey of Devils Tower.



James Jacob, BLM Cadastral Surveyor, measures to a monument during the Devils Tower survey.

BOOK REVIEW - by S. Dennis Dawson, PLS

Journeys: One Individual's Excursions into the Surveying and Mapping Professions by Dr. Herbert W. Stoughton

I have the honor and a pleasure to review the book referenced above which I am going to call *Journeys* and which was authored at the request of the (Professional Land Surveyors of Wyoming) West Chapter by Herbert W. Stoughton, Ph.D., PE, PLS, C.P. and Geodetic Engineer. Dr. Stoughton's (whom I respectfully and affectionately call Dr. Herb) book is one that I have been hoping he would write. OK, In all honesty, it's one that I hope is Book One, of many.

This book was sponsored by the West Chapter of PLSW and was to be specifically written about subjects of the author's choice. Therefore, it is not a textbook in the formal sense of the word, but rather an interesting informative compilation of various articles on sometimes obscure subjects.

That having been said, one could interpret the inclusion of obscure subjects as an invitation to read a boring book. Nothing could be further from the truth. Dr. Herb's passion has always been to provide an understanding of the functions that are utilized and the basis of the technology that we use

in every day surveying today. I believe that it is Dr. Herb's wish to leave a legacy of documenting the foundations for our procedures that are in use every day around the world.

As an example: "Water Level Transfers to Determine Geodetic Elevations in Lake Ontario" is a summary version of Dr. Herb's Ph.D. dissertation; "Mathematics and Surveying" is a history of mathematics and it's relation to surveying from circa 4000 B.C. to the early 1900's; There is a biography of Justice Cooley; a discussion of "Land Tenure of the Netherlands in the Colonial States". The point of these summaries is that there are subjects in this book that are rarely, if ever, discussed or written about that have a direct bearing surveying practices today.

Dr. Herb's development of original procedures to confirm the accuracy of calculations and observations is illustrated by two "Signed Numbers" and "(A minus 0)" and "Taping Corrections" essay. I've had the opportunity to survey with Dr. Herb many times in the past years



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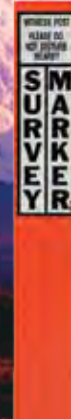
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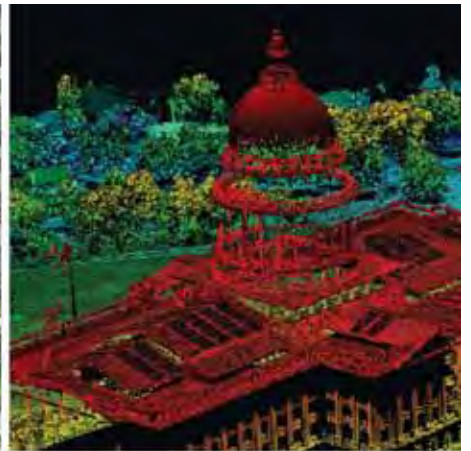
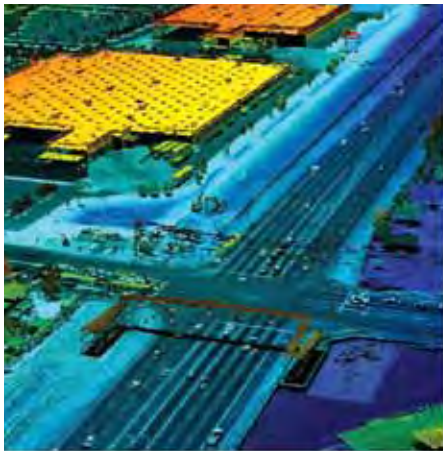


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and have marveled at his ability to accurately and quickly calculate substantial volumes of data correctly, and seemingly effortlessly. These essays are the secret to the process that Dr. Herb uses in his everyday practice of all of the disciplines in which he is qualified.

Dr. Herb has made it a hobby to build a collection of documents and publications which taken together provide much of the information that creates the basis for historical and modern surveying and mapping practices. It is my understanding that Dr. Herb's collection will be archived. Hopefully, his collection will be the basis of many more books like this initial installment. I will warn you that this book is not a casual evening read, but a book that requires some study and thought. Reading this book will be well worth the time spent. Join me in an adventure.

The contents of this book is appended below.

- Water Level Transfers to Determine Geodetic Elevations in Lake Ontario
- Mathematics and Surveying
- Mapping a 6th Century B.C. Archaeological Excavation
- A Goodly Heritage: Surveying in New York State from 1776 to 1976
- History of Surveying Education in New York
- The Land Tenure of the Netherlands in the Colonial United States
- Judge Thomas McIntyre Cooley (1824-1898) and "The Judicial Functions of Surveyors"
- On 'Reestablishing of Lost Corners'
- Elevations - The Federal Datums
- The Blue Line and the Red Line-Their Significance in New York State
- Application of Geodetic Engineering to Small Scale Settlement Studies
- Current State-of-the-Art Surveying Techniques Available to Monitor Structural Movements
- "Signed Numbers" and "(A minus 0)"
- Systematic Errors: A Primer
- The First Method to Adjust a Traverse Based on Statistical considerations
- The Crandall Method to Adjust a Traverse
- Instructions for Determining Mean Sea Level at Remote Sites
- Historical Overview of Vertical Datums
- A Universal Vertical Datum: Issues and Problems
- The Collimation Error Test: The U.S. Coast and Geodetic Survey Method
- Some Notes on the U.S. Coast and Geodetic Survey's Collimation (Error) Test
- Precise Differential Geodetic Leveling: An Approach to Analyze the Three-Wire Method Observations
- Determination of Acceptable Geodetic Differential Leveling Observations by the USC and GS (1899 to 1990)
- The USC&GS Orthometric Correction Formula: An Update
- An Investigation of High Accuracy Determination of Short Geodetic Distances
- Taping Corrections
- Development and Application of the Refractivity Correction Formula for Optical and Infrared EDM Observations
- Analysis of the First Velocity Capability of the Carl Zeiss ELT A2 Electronic Tachometer

"Journeys: One Individual's Excursions into the Surveying and Mapping Professions: Volume I"

by Herbert W. Stoughton

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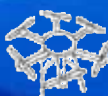
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INITIAL POINT OF THE 6TH P.M.



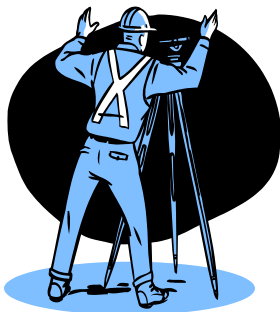
An informal gathering of surveyors and interested people will gather at the Initial Point of the 6th P.M. on the Kansas/Nebraska border on Saturday, June 11, 2016, to commemorate the 160th Anniversary of the placement of this important monument.



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