The UCLS Newsletter Volume 4 Issue 14



July 2016

Where and/or What is it?



Do you recognize the location and purpose of this large sandstone monument? Be the first to correctly identify its location and purpose and you because eligible for a free lunch at your next chapter meeting.

Answers may be emailed to Susan at srmerrill@ucls.org. The earliest date and time of response will determine the winner.

In this issue: We share an inspired editorial on the value of licensure; introduce recent changes in the Utah State Code; and invite you to digitally participate with a Bureau of Land Management's dependent resurvey.

We remember the early Utah pioneers as we celebrate their accomplishments during the month of July. You will find the early Mormon History trivia and the original survey

of the Great Salt Lake City to be interesting and noteworthy.

Can surveyors be astronauts? NASA is looking for surveyors to explore Mars and its moons. The North Arrow Challenge and dastardly deed will again entertain and enlighten you.

We invite you to share charismatic photos of yourself and/or a coworker, panoramic images of Utah's scenic wonders, or pictures of survey related tools and equipment. Additionally, we need interesting and unique descriptions or survey related stories to share with our membership. Remember, if you do not participate you have no right to complain. Please let us know your thoughts, recommendations, suggestions, or complaints.

The UCLS Newsletter is published monthly by the

Utah Council of Land Surveyors
PO Box 1032
Salt Lake City, UT 84110

Phone/Fax: 801-964-6192

Website: www.ucls.org

IN THIS ISSUE:

Page 2.....Officers & Committees

Page 3.....Licenses mean something

Page 4.....State Code Changes

Page 5.....BLM Dependent
Resurvey

Page 6.... June Where is it?

Page 7.....Early Mormon Trivia

Page 8.....Surveyors on Mars

Page 9.....North Arrow

Page 10...Dastardly Deed

"If we prove capable of showing a pioneering commitment, we shall create a community listened to around the world."

-Jacques Chirac

The UCLS Newsletter is published monthly by the Utah Council of Land Surveyors (UCLS), as a service to the Land Surveying profession of the state of Utah. The publication is provided to UCLS members and similar organizations on a complimentary basis. The Newsletter is not copyright protected, therefore articles, except where specifically copy right noted, may be reprinted with proper credit given. Articles appearing in the Newsletter publication do not necessarily reflect the viewpoint or endorsement of UCLS, its officers, Board of Directors, or the editor.

Contributions are encouraged. Articles, Advertisements, Pictures, and Comments may be submitted to UCLS at ucls@ucls.org or uclsforesights@ucls.org

UCLS Executive Board 2015

State Chair
Dale Robinson
12227 S. Business Park Dr., #220
Draper, UT 84020
Business: (801)523-0100
Fax: (801) 523-0990
drobinson@sunrise-eng.com

State Chair Elect
Dan Perry
Utah Valley University
1300 West 1600 North
Orem, UT 84604-2332
Business: (801) 863-8525
perrydl@uvu.edu

Past State Chair
Scott Woolsey
43 S. 100 E., Suite 100
St. George, UT 84770
Business: (435) 628-6500
Fax: (435) 628-6553
scottwoolsey@alphaengineering.com

NSPS Director Steven Dale 3600 S. Constitution Blvd., Room 250 West Valley City, UT 84119 Business: (801) 963-3218 Fax: (801) 963-3540 steve.dale@wvc-ut.gov

West Fed Representative Michael W. Nadeau (SL) 5226 W. Ashland Rose Dr. Herriman, UT 84065 Business: (801) 569-1315 Fax: (801) 569-1319 mikenadeau.ucls@gmail.com

Book Cliffs Chapter President Harold Marshall 85 S. 200 E. Vernal, UT 84078 Business: (435) 789-1017 Fax: (435) 789-1813 hmarshall@uintahgroup.com

Book Cliffs Chapter Representative Brock Slaugh P.O. Box 1580 Vernal, UT 84078 Business: (435) 789-1365 bis@timberlinels.com

Color Country President Todd Jacobsen 175 E. 200 N. Business: (435) 627-4124 Fax: (435) 627-4133 tjacobsen@sgcity.org Color Country Chapter Representative

Rick Snyder 11 North 300 West Washington, UT 84780 Business: (435) 652-8450 Fax: (435) 652-8416 rsnyder@sunrise-eng.com

Golden Spike President Andy Hubbard 5746 S 1475 E Ogden, UT 84403 Business: (801) 394-4515 Fax: (801) 392-7544 andyh@greatbasineng.com

Golden Spike Chapter Representative Val Schultz 2096 W. 5750 S. Roy, UT 84067 Business: (801) 399-8018 Fax: (801) 825-1320 vschultz@co.weber.ut.us

Salt Lake Chapter President
Gary Christensen
2132 W 1235 S
Lehi, UT 84043
Business: (801) 550-3209
gchristensen@sunrise-eng.com

Salt Lake Chapter Representative Tim Prestwich 12830 Redwood Road Riverton, UT 84065 Business: (801)208-3124 tprestwich@hotmail.com

Timpanogos President Bradly D. Daley 3814 Sage Vista Lane Cedar Hills, UT 84062 Business: (801) 566-5599 Fax: (801) 566-5581 bdaley54@msn.com

Timpanogos Chapter Representative Jim Kaiserman 1020 Sage Circle Heber City, UT 84032 Business: (435) 657-3222 Fax: (435) 657-3207 jkaiserman@co.wasatch.ut.us

Administrative Secretary Susan Merrill PO Box 1032 Salt Lake City, UT 84110 (801) 964-6192 srmerrill@ucls.org Treasurer
Brad Mortensen (SL)
3268 S. 930 W.
Syracuse, UT 84075
Business: (801) 363-5605
Fax: (801) 363-5604
bmortensen@MElamerica.com

Chapter Vice Presidents:

Book Cliffs David Kay
dkay@uintahgroup.com
Color Country Bob Hermandson
bobh@bushandgudgell.com
Golden Spike Ken Hawkes
kenh@awagreatbasin.com
Salt Lake Brian Linam

brian.linam@esieng.com
Timpanogos Chad Hill

chill@spanishfork.org

Chapter Secretary/Treasurer Book Cliffs Paul Hawkes paul@trisatesurvey.com Color Country **Brad Peterson** brad2765@gmail.com Travis Gower Golden Spike gwlsurvey@gmail.com Salt Lake Brian Mitchell bmitchell@slco.org **Timpanogos** Chad Poulsen chad@lei-eng.com

Committees & Committee Chairs

Legislation Doug Kinsman
doug@ensignutah.com

Education Vacant

Publication Stave Keirel

Publication Steve Keisel
svkeisel@gmail.com
Standards & Ethics Dale Bennett
dale@benchmarkcivil.com
Membership David Balling

dkballing@msn.com
Public Relations Randy Smith
rdsmith@utah.gov
Testing Darryl Fenn
dfenn@merid-eng.com

Workshop & Convention
Todd Jacobsen
tjacobsen@sgcity.org
Historical Charles Heaton

charles.heaton@esieng.com
Matt Peterson
matt.peterson@esieng.com

Construction Survey

David Mortensen DMortensen@bushandgudgell.com

Editor's Points: Surveyor's Licenses Mean Something

We tend to trust professionals who have diplomas, certificates and licenses hanging on their walls. So, when a toothpaste maker wanted to gain market share, it borrowed that trust we have for licensed professionals in a regulated field. If dentists recommend a product, it must be good.

There's another reason for surveying professionals to pay attention to dentists besides healthy teeth and gums. Jeff Lucas offers the particulars in his column this month. It's a cautionary tale of how a regulated profession needs to protect its future.

Those professional surveyor licenses and certificates on the wall mean something to the public. They represent a trust that the work performed will be correct and of the highest quality

At a time when, like many professions, surveying is seeing the Baby Boom bubble move through its senior ranks with nowhere near the number of replacements needed entering the field, the potential entry of unregulated players raises serious issues. On the one hand, it is a solution to the issue of headcount. With fewer barriers to entry, we can bring in more workers.

On the other hand, what do lower entry standards mean to the professionalism and quality of the work being done by the current, highly qualified workforce?

Experience and judgment count. When I was in college, I went to the campus health center for some illness or another and was told they would need to draw some blood. I waited for the phlebotomist. I have to admit an initial wave of concern when I recognized the woman who walked in with the tray of instruments from my English class. Did I really want an English major sticking a needle in my vein? I decided this was not a task the health center would entrust to just anyone, and I might be wrong — she may have been in pre-med fulfilling an elective in my English class. I trusted that she had the experience and judgment gained through training and proper supervision over time. I knew I had recourse to ask for a nurse or doctor whose credentials were spelled out on the wall or in the letters after their name.

Years later, a housing inspector told me that if I did my own electrical work, I did not need a permit, but if a contractor touched the wiring, not only did I need a permit but a licensed electrician had to sign off on the work. I don't know what made my electrical repairs more trustworthy than a carpenter or handyman who had probably seen more wiring than I'll ever see, but I had three choices. If I used a licensed electrician, the work would be done under the permit, certified and inspected. If the handyman did it, I would have to get a permit, bring in an electrician to certify the work, and go through an inspection. If I did the work myself, I could avoid most of the steps or bring in the electrician at the end to check my work. The most efficient and cost-effective approach was to start with a licensed professional.

As we watch the dentists — who can legitimately argue they want to protect the health and safety of the general public — we shouldn't dismiss the issue that is engaging them. We can't afford to sound like we want to exclude legitimate players from the market, but we must defend the standards and qualifications that are the hallmark of this profession. If the dentists lose ground, so do we, and so do other regulated professions.



I do feel some comfort when I see those licenses and diplomas on the wall.

Reprinted with permission from Point of Beginning, Copyright 2016, www.pobonline.com

CHANGES TO STATE CODE

Historical Code

17-23-14. Disturbed corners -- County surveyor to be notified.

- (1) As used in this section:
 - (a) "Corner" means the same as that term is defined in Section 17-23-17.5.
 - (b) "Monument" means the same as that term is defined in Section 17-23-17.5.
- (2) A person who finds it necessary to disturb any established corner in the improvement of a road, or for any other cause, or finds a monument that needs rehabilitation, shall notify the county surveyor.
- (3) The county surveyor or the county surveyor's designee shall:
 - (a) consistent with federal law or rule, reconstruct or rehabilitate the monument for the corner by lowering and witnessing the corner or placing another monument and witness over the existing monument so that the monument:
 - (i) is left in a physical condition to remain as permanent a monument as is reasonably possible; and
 - (ii) may be reasonably located at all times in the future; and
 - (b) file the record of each reconstruction or rehabilitation under Subsection (3)(a).

New Code - Effective 05/10/2016

Note: text with significant changes have been "bolded"

Title 17 Counties

Chapter 23 County Surveyor

Section 14 Disturbed corners -- County surveyor to be notified -- Coordination with certain state agencies.

- (1) As used in this section:
 - (a) "Committee" means the Monument Replacement and Restoration Committee created in Section 63F-1-510.
 - (b) "Corner" means the same as that term is defined in Section 17-23-17.5.
 - (c) "Monument" means the same as that term is defined in Section 17-23-17.5.
- (2) A person who finds it necessary to disturb any established corner for any reason, including the improvement of a road, shall notify the county surveyor at least five business days before the day on which the person disturbs the corner.
- (3) A person who finds a monument that needs rehabilitation shall notify the county surveyor within five business days after the day on which the person finds the monument.
- (4) The county surveyor or the county surveyor's designee shall:
 - (a) consistent with federal law or rule, reconstruct or rehabilitate the monument for the corner by lowering and witnessing the corner or placing another monument and witness over the existing monument so that the monument:
 - (i) is left in a physical condition to remain as permanent a monument as is reasonably possible; and
 - (ii) may be reasonably located at all times in the future; and
 - (b) file the record of each reconstruction or rehabilitation under Subsection (4)(a).

Amended by Chapter 171, 2016 General Session

Bureau of Land Management Dependent Resurvey



BLM-Utah Chief Cadastral Surveyor Dan Webb, Cadastral Land Surveyor Christopher May and Land Survey Pathway Student Nicholas Verhoef, conducted a resurvey of an 1872 General Land Office survey, June 28, near the Simpson Mountains in the West Desert.

The BLM-Utah West Desert District Office requested the cadastral survey to protect the Public Land Survey System (PLSS) boundary corners in preparation for the Government Creek Slashing fuels reduction project. This project also addresses improvement of Greater Sage Grouse habitat.

Using original plat and field notes from the 1872 survey, the original marked stone corners were found, recorded and then perpetuated with new aluminum post and caps. The original stones were identified by chiseled markings on the face of each stone. The section corners are marked with chisel marks on the side of the stone, and quarter corners are marked with a 1/4.

The type and size of the stone, the distance and bearing between the stones as well as other topographical features were also included in the 1872 record which helped the survey team identify the corners.

The new aluminum posts are marked with the township, the range, the section numbers, the year the corner was set, and sub divisional markings.

The team used survey grade GPS equipment which gives sub centimeter accuracy. The measurements and descriptions will become a new PLSS plat and filed note record for land managers and the public use into the future.

The Bureau of Land Management's Cadastral Survey Program is one of the oldest and most fundamental functions of the United States Government. Cadastral Surveys are the foundation of our national land tenure system; creating, reestablishing, marking, and defining land boundaries.

Please visit our work by going to BLM Utah Flickr link/picture web site at:

https://www.flickr.com/photos/blmutah/albums/72157670311988436

Daniel W. Webb BLM, Utah State Office (UT925) Division of Lands & Minerals Chief, Branch of Geographic Sciences Chief Cadastral Surveyor, Utah 801-539-4135 dwebb@blm.gov



June Where Is It?



Charles Heaton was the first to respond with the correct information about the location of the June's "Where Is It" contest - followed by Mark Gregerson and Chad Hill.

The Lucrin Sun Tunnel was built between 1973 and 1976 on 40 acres of Great Salt Lake Desert land near the tiny town of Lucin, Utah. They mark the yearly extreme positions of the sun on the horizon. The tunnels being aligned with the angles of the rising and the setting of the sun on the day of the solstices, around June 21st and December 21st. On those days, the sun is centered through the tunnels and is nearly centered for about 10 days before and after the solstices.

American artist Nancy Hold built the monumental, yet industrial-looking Sun Tunnels on 40 acres of desert about 10 miles outside the ghost town of Lucin to make a statement about humans' relationship to the Earth and the cosmos.

The artwork is composed of four 18-foot long, 9-feet wide concrete culverts. Two of the tunnels line up with the sunrise, another pair at sunset line up with the summer solstice. Then in winter, on the shortest day of the year, the pairs switch roles to do it again.

At midday, the darkened tubes of concrete become a planetarium of sorts, thanks to various- sized holes bored in their sides projecting representations of four constellations: Draco, Perseus, Columba, and Capricorn. The holes throw spots of light, like stars, inside the dark tunnels.



NOTICE

IF YOU HAVE NOT RECEIVED THE SPRING-SUMMER PUBLICATION OF THE UCLS FORE-SIGHT MAGAZINE- IT MAY BE BECAUSE OF AN INCORRECT ADDRESS. PLEASE VERIFY AND/OR UPDATE YOUR CONTACT INFORMATION ON THE UCLS WEBSITE

Pioneer Day Did You Know?

- February 4, 1846 is the first day wagons left Nauvoo and cross the Mississippi.
- 500 men volunteered for the Mormon Battalion.
- From Nauvoo, the pioneers crossed Illinois, Iowa, Nebraska, Wyoming, and Utah to make it to the Salt Lake Valley.
- 70 wagons made up the first wagon train to reach Utah.
- Only 3 women began the cross country voyage with the first wagon train to head to the Salt Lake City Valley.
- William Clayton is credited with building the modern odometer while journeying with the first Mormon wagon train.
- "Come, Come Ye Saints" was written during the first wagon train's journey to the Salt Lake Valley.
- Independence Rock, in Wyoming, is covered with the carved names of emigrants who traveled along the Oregon, Mormon, and California Trails.
- Pioneers met Jim Bridger during their journey west.
- According to the diary of Willard Richards, Jim Bridger promised to give Brigham Young \$1,000 for a bushel of corn raised in the Salt Lake basin.
- It took 14 days to travel the last 116 miles from Fort Bridger to the Valley of the Great Salt Lake.
- Brigham Young said "It is enough. This is the right place. Drive on." upon seeing the Salt Lake Valley.
- By the time Brigham Young entered the valley on July 24, the pioneers had already planted crops and started irrigation work.
- On July 26, 1847, Brigham Young, Heber C. Kimball, Ezra T. Benson, George A. Smith and Wilford Woodruff climbed Ensign Peak.
- On July 28, Brigham Young planted his walking stick in the ground and said this is the spot where the Saints would begin building the Salt Lake Temple.
- Brigham Young Named City Creek.
- Between 1846 and 1869, between 60,000 and 70,000 Mormons traveled West on the Mormon trail.
- On average, wagon trains could travel 9 miles a day.
- The Mormon trail was roughly 1,300 miles long.
- According to an 1859 pioneer guide, a stampede, was "more to be dreaded upon the plains than almost any disaster that can happen."
- Perpetual Emigration Fund helped immigrants migrate to Utah.
- In 1848 seagulls came in large flocks to eat the Mormon cricket that were devastating crops in the Salt Lake Valley.
- The first Pioneer Day celebration was held in 1849.
- At the October 1856 general conference, Brigham Young asked for volunteers to go rescue the Willie & Martin handcart companies.
- Counting Brigham Young, 5 prophets crossed the plains.







SURVEYORS WANTED TO EXPLORE MARS AND ITS MOONS

Have you ever asked the question, what is out there? So have wel That curiosity leads us to explore new places like Mars and its moons, Phobos and Deimos. Just what lies beyond the next valley, canyon, crater, or hill is something we want to discover with rovers and with humans one day too.

Files for Print

- Surveyors Wanted Poster (JPG, 6.13 MB)
- Surveyors Wanted Poster (TIF, 92.73 MB)

CHIEF NASAWSC

images are free for reprint and re-use











Thanks to UCLS member Evan Wood for contributing

HISTORICAL DATA

Prepared in accordance with the original survey made by Orson Pratt, Henry Q. Sherwood and assistants, which survey was commenced August 2, 1847, and completed the same month.

The city was pioneered by the Marmon people at that time. Orsen Pratt was the first of this group to walk over and evaluate the area as a city site, on the atterneon of Wednesday, July 21, 1897. The day following, July 22, he, with eight other horsemen, rade ever the site and examined the surrounding lands as far north as the Hot Springs and some distance west of Jordan River.

On Friday, July 23, 1847, the main body of the Pioneers arrived on the city site and made camp in the area surrounding the present City and County Building lection between 4th and 5th South and between 2nd Cost and Main Streets. There, in solemn religious ceremony, Orson Pratt as leader of the group dedicated the people and lands to the Lord and implored this blessings upon their labors. For our committees then were appointed to attend to different branches of business preparitory to putting in crops. Plowing commenced shortly afterward and that same day a dam was made in City Creek and modern irrigation in North America was initiated.

On Saturday, July 24, 1847, at 11:45 A.M., President Brigham Young and company arrived - a day late due to sickness.

Wednesday afternoon, July 28, 1897, President Brig-

-113 Abel John

Stephen Winchaster

Benj.

Hawkins

Sylvester

Earl 113

Orson Pratt, unanimously reted to erect a temple therean.

That evening, the Pioneers assembled on the Temple That evening, the Pioneers assembled on the Temple sife and rated unanimously to build the Temple there and to survey a city to be divided into late 10 by 20 rads each, exclusive of the streets, and into blocks 20 rads late, each with 10 acres to each block and 11 acres to each lot, that streets be 8 rads wide, including sidewalks, and intersecting at right angles; that the houses be built in the centers of late and 20 feet back from the sidewalk line; and that there be four 10 acre squares, public grounds. public grounds.

On Saturday, August 7, 1847, four days after the city survey commenced, the Church Lenders, for and in ochalf of the people and themselves, and milhout compensation, commenced the distribution of city blocks and lots as "inheritancies". These building lots were distributed equitably among the people with the provise that they were to be used for home or business building only and not to be sold or otherwise disposed of for pecuniary profit

One 10-nere block, later known as the Sixth Word (or Pioneer) Square, was designated as the site for erection of a temporary fort in which the people would reside until individual homes could be built in various parts of the city. Work on the fort was commenced August 11, 1897.

On Saturday, August 19, 1897, a general meeting of the Pioneers was held at which the city was given the name: "The City of the Great Salt Lake, Great Basin, North America:

When the new city was incorporated, an March 26, 1851, its name was changed to Great Salt Lake City.

PIONEER MAP

GREAT SALT LAKE CITY



Page 9 Volume 4 Issue 14 July 2016 The UCLS Newsletter

MATCH THE NORTH ARROW TO THE COMPANY

Company	Α	В	С	D	E	
1 Global Surveying			North	ZORTH		1 =
2 Boss Engineering						2 =
3 Level of Focus Engineering						3 =
4 Phomas						4 =
5 Carlisle Surveying						5 =

Answers on page 10

ATTENTION

Your help is needed!

The Utah Council of Land Surveyors (UCLS), in conjunction with the Arizona Professional Land Surveyors (APLS), Nevada Association of Land Surveyors (NALS), Bureau of Land Management (BLM), and the Western Federation of Professional Surveyors (WFED) are collaborating to re-monument the tristate corner for the state boundary of Utah, Arizona, and Nevada.

Todd Jacobson, UCLS Color Country Chapter President is seeking volunteers and suggestions for this monumental project. Please contact Todd at 435-627-4124

Dastardly Deed

