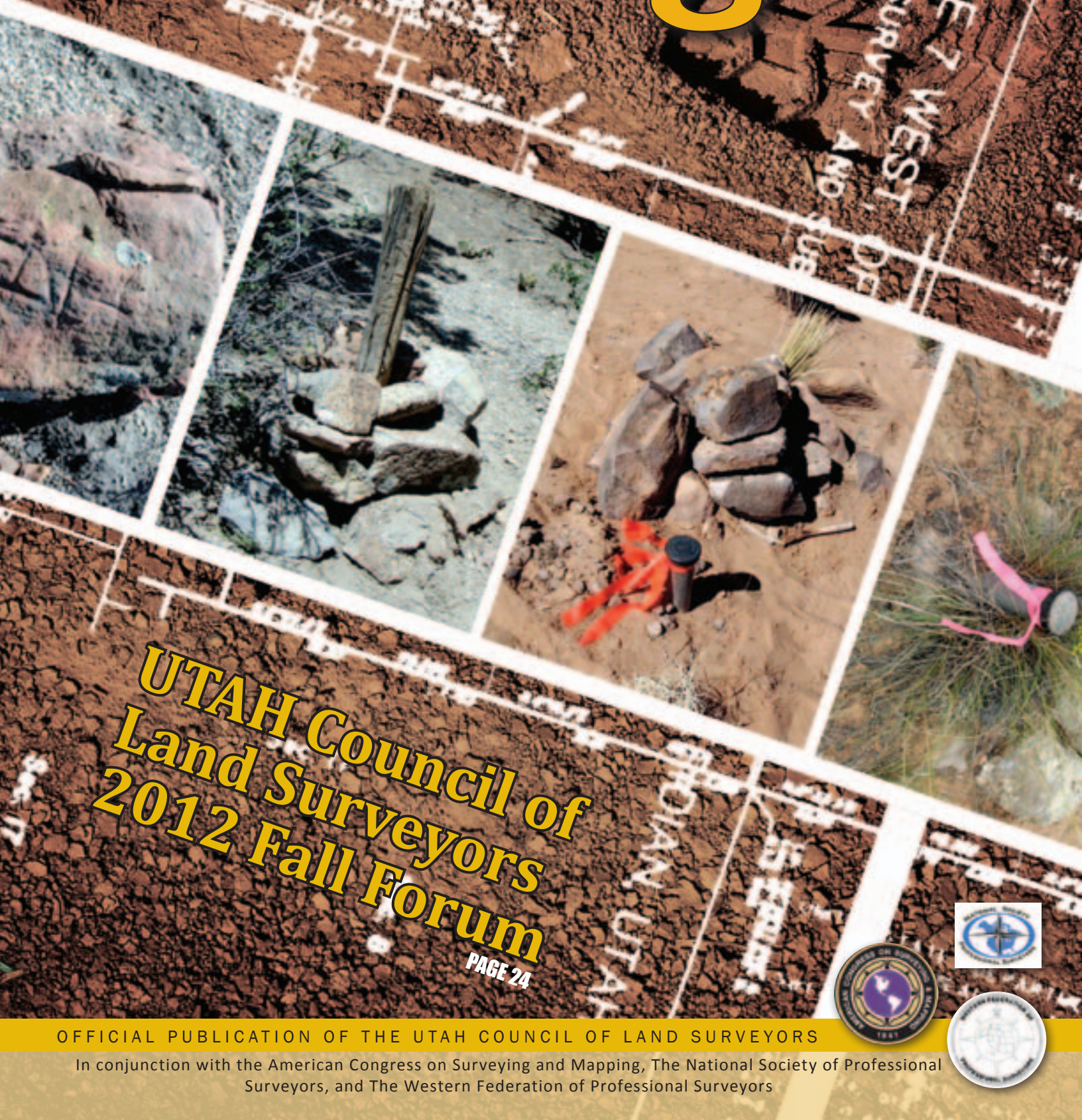


# UCLS Foresights



## UTAH Council of Land Surveyors 2012 Fall Forum

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The *UCLS Foresights* is published by the Utah Council of Land Surveyors (UCLS), as a service to the Land Surveying profession of the state of Utah and similar organizations on a complimentary basis. The *Foresights* is not copyright protected, therefore articles, except where specifically copyright noted, may be reprinted with proper credit given. Articles appearing in the *Foresights* publication do not necessarily reflect the viewpoint or endorsement of UCLS, its officers, Board of Directors, or the editor. Contributions are encouraged and may be submitted to UCLS at mail@UCLS.org





## From the Editor

STEVE KEISEL



A PLS might use RTK with good VDOP and NAD 83 datum to collect GPS and VRS data that is downloaded into a DC. This information is processed into a CAD drawing which may be a ROS or Topo map. Notes on the drawing indicate the CL has a PI with its PC being at Sta 24+51, R of 500.00 feet, and ARC of 179.65 feet. The drawing references a BofB between an SC and WC in T35S R12E SLBM. Additionally the drawing reflects a BM in the TBC at 100.00.

Within the pages of this magazine, you will find information on our annual fall forum event, proposed guideline changes to the record of survey filing act, an interesting article on geospatially measuring an Israeli archeology site, suggestions on how to broker surveying services, and ideas to assist the surveyor in litigation. Additionally, the BLM has provided an updated list of official cadastral surveys in Utah, and results of the Utah TRIG-Star Competition wherein Utah's TRIG-Star winner placed 13th in the nation.

As always, UCLS welcomes your comments, complaints, suggestions, contributions and participation. ◀

**W**elcome to the fall publication of *UCLS Foresights* magazine. The content of this publication is varied but informative. In this edition, you will read about the activities of your Chapter and the accomplishments of our committees. Additionally, the latest news from the Western Federation of Professional Surveyors (WestFED) and National Society of Professional Surveyors (NSPS) is included. Hopefully, these items reflect a review of what was done – not what should have been done.

Interesting to learn that doctors often use acronyms to describe and prescribe their work. Because of an FDGB (fall down-go boom) accident, I had to get an MRI (magnetic resonance imaging) on my ACL (anterior cruciate ligament) before SX (surgery) could be scheduled. Nor was I aware that my ADL (activities of daily living) would change and after surgery would require RICE (rest, ice, compression, elevation).

This translation of medical acronyms into an understandable language was indeed a linguistic exercise that caused me to wonder – do we surveyors speak and write in a proprietary language that may be foreign to others?

Recently, I experienced the joys of getting older by undergoing a routine knee surgery. The surgery went fine, however it was in-

## Utah Division of Occupational & Professional Licensing Agenda

Entity: Department of Commerce

Public Body: Professional Engineers and Professional Land Surveyors Licensing Board

**Subject:** Occupational Licensing

**Notice Title:** Professional Engineers and Professional Land Surveyor Licensing Board meeting

**Meeting Location:** 160 East 300 South  
Conference Room 474  
Salt Lake City 84111

**Notice Date & Time:** July 18, 2012 9:00 AM

**Description/Agenda:** PROFESSIONAL ENGINEERS AND PROFESSIONAL LAND SURVEYORS LICENSING BOARD MEETING  
July 18, 2012, 9:00 A.M. – 12:00 P.M.  
Room 474 - 4th Floor  
Heber M. Wells Building  
160 E. 300 S. Salt Lake City, Utah  
*This agenda is subject to change up to 24 hours prior to the meeting.*

### Administrative Business:

1. Call meeting to order
2. Sign travel reimbursement
3. Review and approve minutes dated May 16, 2012
4. Compliance report
5. Preliminary review of discussion items

### Appointments:

1. 9:15 A.M. - R. Craig Brown, probation interview

### Discussion Items: 9:40 A.M. – 12:00 P.M.

1. Further definition of continuing education requirement
2. Seal requirements
3. Proposed amendments to definition of unprofessional conduct
4. Appropriate uses of PE/PLS Education and Enforcement Fund
5. UCLS support of Rhode Island Society of Professional Land Surveyors proposal to remove "engineering surveys" from NCEES model law
6. Report from Board members who attended NCEES Central/Western Zone Joint Interim Meeting, May 17-19
7. Upcoming NCEES Annual Meeting in August

*continued on page 6*



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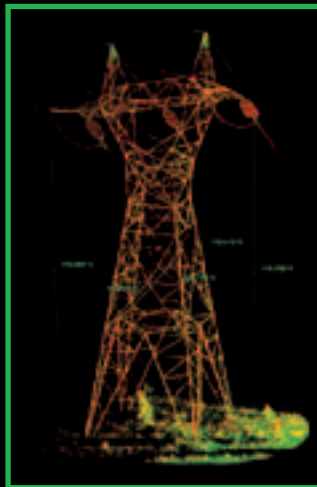
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# Chairman's Message

BRAD T. MORTENSEN, PE, PLS



btmort@earthlink.net

**G**reetings fellow surveyors, it is hard to believe that it is already the end of July. This year is just passing us by faster than expected.

The results from the National Trig-Star Competition are in and this year we had more participate than we have ever had in our history – over 100 students, and 11 teachers in 10 schools throughout the state. The State winner took 13th place in the national contest out of 34 other state winners (see article on page 19).

The Fall Forum is just around the corner, September 7th, 2012 at the Utah Valley University. We will have several presentations given by members of the BLM from here



in Utah – Ross Workman, Calvert Norton, Dan Webb, Steve Hope, Mike Thompson, and Matt Kurchinski. I am looking forward to hearing from them; it should be entertaining as well as informative. Look for registration information to come out in the next few weeks.

Soon it will be time to start thinking about nominations for this next year. I appreciate all that accept these nominations to elected offices as well as those who are asked to serve as committee chairs. They do a great service to the profession and to all the members of this society. Remember to support them by doing what you can to serve on a committee or in your chapter in some way.

Another way you can help is to be a Merit Badge Councilor of a Trig-Star Sponsor. The Trig-Star Sponsors for this last year include guys like Clay Tolbert, Trent Williams, Arthur LeBaron, Dallas Buttars, Bill Dearden, Bob

Hermanson, and Shad Hall. They have gone the extra mile and served their community as well as the profession by promoting math and science. I know that many of you have been Merit Badge Councilors in the past. We are trying to organize that effort in the Public Relations Committee, so I ask any of you that have been MB Councilors in the past to send an email to me or Tyler Baron (tbaron@meridian-eng.com), and give us some examples of how you ran your merit badge sessions.

Finally I am reminded of Star Trek the Next Generation from the late 80s or early 90s, when I think about how the profession is changing. I remember that Wesley Crusher during one episode was programming a robot to survey a planet. He was programming this robot by imputing the desired parameters of the survey into his little hand-held computer. Then he launched the robot into space and it surveyed the planet with special sensors while he remained in his quarters onboard the ship. I wonder, how far are we from that point? Perhaps that's a topic for another issue.

Keep your Wits about Ya! ◀

## UCLS Executive Board Agenda

*continued*

### 2012 Board meetings

September 19, November 21

### Notice of Special Accommodations:

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify the Division ADA Coordinator at least three working days prior to the meeting. Division of Occupational & Professional Licensing, 160 East 300 South, Salt Lake City, Utah 84115, (801) 530-6628 or toll-free in Utah only (866) 275-3675.

### Contact Information:

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# A Surveyor by Any Other Name

BY JAMES J. COUTS, PLS, CFEDS



**D**uring a flight a few weeks ago I had a conversation that was all too familiar. Sitting next to a man from Oklahoma, I learned that he was a contractor. He followed up by asking what it was I did, and I informed him that I was a Professional Land Surveyor. "You know, I was a Surveyor for a couple years," was his immediate response. "Really, after all that hard work to achieve licensure, you moved on after only 2 years?" That was not my response, but it's certainly what I was thinking.

Throughout my career, I have constantly tried to increase (or formulate ways to increase) the public's perception of the surveying profession. A major struggle for many years has been the idea that surveyors are technicians. For years this "misconception" has driven me nuts. We are Licensed Professionals, like Engineers and Architects. The problem lies in that it is not a misconception, it is the truth: surveyors are technicians.

Now I just may have garnered ire from the entire UCLS membership, but please keep reading.

No one ever says after working as a dental assistant for 5 years, "I used to be a dentist." The same can be said of just about every other licensed profession: except surveying. Why is it that the public considers "chainmen and rodmen" to be surveyors? They don't consider a paralegal to be a lawyer or a drafter to be an engineer. Some of it is the lack of understanding by the public on what it means to be a surveyor. But I am convinced that the main reason lies in that "we" have called our technicians surveyors. We have allowed them to call themselves surveyors. Their family and friends think they are surveyors. Whether we like it or not, the term "surveyor" is associated with individuals who are actually technicians. I have tried for years to find a way to change this. The reality set in on that plane ride: It's just not going to happen.



At this point should we even care how the public perceives us? Not if we don't mind land owners scoffing at the idea of a \$1,500 boundary survey or \$2,000 for a subdivision plat. Not if we don't mind making wages as Licensed Professionals that are sometimes 20%-40% lower than our licensed counterparts in other disciplines. As long as the public sees surveyors as technicians, they will not understand the value in hiring a Licensed Professional Land Surveyor. As long as every other land owner on your block had an uncle who called himself a surveyor (even though he was a chainman for two summers in High School), we will continue to be an underappreciated profession.

I'd really like to end the article right there. The road I'm about to go down is not one I like, but in my mind contains at least a potential solution to this problem.

If we want the public to see us as Professionals rather than technicians, shouldn't we have a title that conjures up images of collared shirts and framed licenses rather than one that reminds people of orange cones and sweaty uncles? The degree programs at SLCC and UVU are no longer called "Land Surveying." This is the case with colleges and universities across the country. "Geomatics" is the new surveying. I don't know the entire reason that this push was made, but I can tell you with certainty no

one has an uncle who was a geomatician for two summers!

We want to be truly considered professionals by our peers AND the public, we need to separate ourselves from the idea that surveyors are technicians. I have heard talk of Licensed Geomatics Professionals in other circles, but it usually surrounds GIS professionals or the GIS/Survey conversation. As a profession we need to consider this title as a possibility for our ranks. So there it is; fill my email inbox full of hate mail if you like. After reading this in *UCLS Foresights*, I may even send myself a nasty message, but what other way can we change the public's perception of our profession so quickly?

Please don't get me wrong. This is not the only solution to the problem, because it is not the only cause of the problem. We have licensed surveyors who don't act like professionals, who don't file surveys, who create pin-cushion corners, who erode the price of professional services, etc. However, I feel I can safely say that if all other problems plaguing our profession were fixed, the majority of the public would STILL see us as technicians. It is for that reason that I think we need to consider something similar to a "Licensed Geomatics Professional." If not, I'm afraid that as the gap between technicians and professionals widens, surveyors will be on the losing end. ◀

# 17-23-17 CLARIFICATIONS

## Record of Survey (ROS)

*The Legislative committee has prepared the following statement concerning 17-23-17. We propose that this document be accepted by the Executive Board as a clarification and interpretation of the existing code. It is in no way changing the current law. Rather, it addresses questions frequently asked about the meaning or intent of the existing code with common practices. We are presenting this draft statement to give Utah Surveyors an opportunity to comment on this position paper as the Executive Board considers acceptance.*

**(2)(a)(i)** *Each land surveyor making a boundary survey of lands within this state to establish or reestablish a boundary line or to obtain data for constructing a map or plat showing a boundary line shall file a map of the survey that meets the requirements of this section with the county surveyor or designated office within 90 days of the establishment or reestablishment of a boundary.*

A ROS is required whenever a land surveyor is making “a boundary survey of lands within the state to establish or reestablish a boundary line.” The portion of the code that states “...or to obtain data for constructing a map or plat showing a boundary line” is secondary to the first statement. It is implied that the surveyor is, first and foremost, making a boundary determination. The act of obtaining data for constructing a map on its own does not trigger the requirement to complete a ROS.

*A ROS is required whenever:*

- The surveyor determines and delivers information representing a boundary location in plat or description form such that it may be relied upon by others to improve real property; or
- The surveyor sets any type of monument that represents the lines or angle points of a boundary right.

Boundary determination is independent and not affected by payment from the client.

*The time requirement to file the ROS “within 90 days” begins:*

- Whenever (after the examination of record, measured and parole evidence) the surveyor presents a map, description, or other document showing the location of the boundary in relationship to existing surveyed monuments and indications of ownership or whenever monuments are placed to identify or reference the location of a boundary on the ground.

Filing a ROS limits the surveyor’s exposure to liability – 78B-2-226. An action against a surveyor for acts, errors, or omissions in the performance of a boundary survey filed pursuant to Section 17-23-17 shall be brought within five years of the date of the filing.

**(2)(b)** *The county surveyor or designated office shall file and index the map of the survey.*

The county surveyor or designated office is required to file and index these maps (collecting them in a pile or drawer is not sufficient). Maps are indexed by location. Therefore, the quarter section, township, range, and meridian shall be in the title block of the map. If the survey is located in the entire section or multiple sections then it is acceptable to only list the section or sections affected; all four of the quarters of a section are implied.

When a survey is located in a town site or a subdivision the quarter section still needs to be determined and provided in the title block of the map (in addition to the lot and block references) to facilitate a common method of indexing all ROS maps.

*Each ROS should be filed and indexed with, at a minimum, the following information;*

- The file or index number,
- The name of the surveyor who signed and sealed the map and the company name,
- The name of the client as contained on the map,
- The quarter section or section in which any part of the survey resides,
- The date the map was filed, and
- The number of pages the map contains

**(3)(b) & (4)(b)(ii)** *the date of the survey;*

The date the surveyor signs/seals the ROS satisfies this requirement.

**(3)(d)** *the distance and course of all lines traced or established, giving the basis of bearing and the distance and course to two or more section corners or quarter corners, including township and range, or to identified monuments within a recorded subdivision;*

Statute requires “the distance and course to two or more section corners or quarter corners ... or to identified monuments in a recorded subdivision.” The basis of bearings on a ROS is the starting place of the survey so that other surveyors can retrace and “follow in the footsteps” of the surveyor. The intent of this requirement is to provide a minimum of two monuments that exist on the ground.

It is required that the basis of bearing be defined and described in the narrative of the ROS. The basis of bearing should also be identified and noted graphically along the line between two monuments where applicable.



Examples of Basis of Bearing in the narrative are as follows:

- ASSUMED
  - a. The Basis of Bearing for this survey is between two recovered monument as depicted and described on this plat.
- REFERENCE
  - a. The Basis of Bearing for this survey is [N00°00'00"E, 2640.00'] along section line between recovered monuments the E 1/4 corner and the NE corner of Section XX, TXXS, RXXE, SLM, [BLM Cadastral Survey Plat, County Plat].
  - b. The Basis of Bearing for this survey is the centerline of Surface Street between recovered monuments at ABC Ave and XYZ Ave. as shown of the <plat of record or deed>.
- GPS or STATE PLANE
  - a. The Basis of Bearing for this survey is Utah State Plane Coordinate System NAD83-(2011), [North Zone-4301, Central Zone-4302, South Zone-4303] [US Foot, International Foot, Meters] as determined by: [OPUS Observation, Occupation of NGS Control Station PID, or GPS Static Post-Processing from the following NGS HARN Stations] and is shown on this plat between recovered monuments 'X' and 'Y'.
- MULTIPLE MONUMENTS (add to above statements for larger surveys)
  - a. Any of the lines between recovered monuments shown hereon may be used as a basis of bearing for future retracement surveys.

**(3)(f) a written boundary description of property surveyed;**

The intent of this requirement is for the surveyor to re-print the record legal description of the subject parcel citing the source (Deed book/page, Title Report, etc.). Additional descriptions may be provided for new boundaries established, such as:

- Boundary line agreements
- Easements
- Minor land divisions
- Overall boundary of combined parcels

"As-surveyed" descriptions should be avoided. "Record" vs. "Measured" calls along the measured lines is the recommended form of disclosure where differences are observed.

**(3)(h) a detailed description of monuments found and monuments set, indicated separately;**

A detailed description should include:

- Type (brass cap, aluminum cap, rebar/cap, iron pipe, nail, spindle, RR spike, stone, etc.)
- Marking (notches, grooves, blazed, pits, mounds, etc.)
- Stamping (BLM, GLO, License #, Company Name, Year, etc.)
- Condition (bent, illegible, etc.)
- Accepted/not accepted
- Reference the corner file or tie sheet if available

**(7)(a)** *If, in the performance of a survey, a surveyor finds or makes any changes to the section corner or quarter-section corner, or their accessories, the surveyor shall complete and submit to the county surveyor or designated office a record of the changes made.*

**(b)** *The record shall be submitted within 45 days of the corner visits and shall include the surveyor's seal, business name, and address.*

*It is required that if a surveyor finds or makes changes to section corner monuments "the surveyor shall complete and submit to the county surveyor or designated office a record of the changes made" within 45 days of the corner visit. This record may be delivered in any of the following forms:*

- by identification on a filed ROS
- by email or letter explaining the findings
- by corner file record per 17-23-17.5 (required if changes or additions are made to the made to the monuments or its accessories)

## LEGIBILITY

*ROS maps are a public resource; their reproduction and use by the public needs to be considered. Copies and half size reductions should remain legible. It is recommended that:*

- text size be a minimum of 0.10 of an inch (10 point font) in height when at all possible,
- use of gray scale and color on plats remains visible on copies,
- text overlaps on other text, hatching, or lines should be avoided, and
- drafting standards which define line type, weight and scale should be employed. ◀

# Lobbyist Report

RYAN PETERSON



**I**t has been an exciting time here in Utah. Election years always provide months of entertainment, or what many of you may define as annoyance. As we move towards November, we will see the federal races heating up as well as some exciting statewide races. It's important for each of you to look at the candidates closely and make an informed decision.

The legislative committee has been hard at work on several issues, and the committee members have been working very hard on the best options for surveyors in the State of Utah. At this point in the discussion, there is not a decided course of action, but there is great movement in the right direction.

The first issue that we have been looking into is to plan this upcoming legislative ses-

sion to amend the condominium act. Other states that have made major changes to the condominium act have intentionally or unintentionally impacted surveyors and their role in the process. We will be working with the bill sponsor, Senator Wayne Neiderhauser, to ensure that we are part of the discussion and that we are able to show him where the potential unintended consequences may be.

Second, we are looking at any and all options to protect surveyors from potential criminal charges for accessing private property. This is a very delicate issue. Utah is a pro "private property rights" state. Legislators will be very careful about how they approach this issue. Again, we don't know what the solution is yet, but we are meeting with legislators who are friendly to the business of surveying to explore the appropriate steps. Stay tuned.

Finally, we are still looking at the right way to approach the concept of the 4-year degree. The committee understands that there are many different points of view regarding this issue, but would like to make sure that surveyors in Utah continue to be recognized as the professionals they are. We are working with the department of occupational and professional licensing, Utah Valley University, as well as legislators to find the best way to address educational requirements for licensed surveyors.

We appreciate your feedback and will connect with you as we learn new information or inch closer to a strategic plan to implement each of these goals. ◀

# Salt Lake Chapter Report

DAVID MORTENSEN

**H**ope everyone had a good summer and a well needed time off for the month of July. We got back into the business on August 16th in which we heard from Cullen Battle, Attorney at Fabian, on changes to the Utah Laws about depositions and expert reports and other rules regarding expert disclosures and discovery.

On a business note we are looking to find someone to serve on the membership committee from our Chapter. If you are willing please call me at 801-755-6891 or email me at [utahdigger@yahoo.com](mailto:utahdigger@yahoo.com). I have been

asked to make sure that all the committees have representation from our Chapter. Our chapter is well represented in all of the committees except for the Membership committee. Please review the section in the UCLS by Laws on what the duties of the committee are and let me know if you are interested. I will be trying to talk to a few of you at the next few meetings to find out interest.

Section 3.16 (j) Membership Committee. The principal duties of the Membership Committee shall be to evaluate, implement and promote the benefits of membership in the

Corporation; to maintain a current membership roster; to recognize achievements and events; to standardize continuing education units; to recruit qualified candidates for leadership positions; to conduct the oath of office for new officers; and to generate periodic salary and benefit comparisons.

Please remember that only through involvement in the committees can we make a difference. You will also receive another point towards the big prize at next year's conference. ◀

# Timpanogos Chapter Report

DENNIS CARLISLE

**T**he Timpanogos Chapter had scheduled a Chapter BBQ on Friday, August 10th in Spanish Fork for Chapter members

and their families. Thanks to everyone who came. ◀



# Color Country Chapter Report

**P**ertaining to our HCN ad-hoc committee meeting, Scott Bishop stated that the committee decided to keep using the existing HCN networks in Washington County but get them up to date. As part of that effort, we would like support from and to educate the local government agencies; we feel they do not understand the importance of monuments.

Scott and the committee are going to prepare a letter expressing the history, importance, value, etc. of proper survey monumentation.

The Chapter is in the process of doing a follow up luncheon meeting to discuss the findings of the committee and have a preliminary schedule for a luncheon on updating the platting and application process with St.

George City. Todd Jacobsen the St. George City Surveyor will put on that presentation.

A luncheon is being considered in the Cedar City area for the surveyors in Iron County. ◀

# Golden Spike Chapter Report

**O**n June 13, Essy Rahimzadgan presented the operations of right-of-way lands and how UDOT deals with them, as well as the maintenance and placement of GPS stations for the VRS network. That meeting was held at Maddox in Brigham City.

The room was packed. Thank you to Essy and the fine job he did.

On July 12 (second Thursday), our chapter meeting was held at Roosters. Troy Langston spoke on the newest developments in survey technology, as well as light squared and micro banding of radios.

Thanks to all who came to learn, socialize with great people, and enjoy some good food. ◀

# Historical Committee Report

BY JERRY FLETCHER

**T**he Historical Committee would like to profile a member in each edition of the monthly UCLS Newsletter. We hope to share your surveying experiences with others as we get to know our fellow professionals. Please email Jerry Fletcher at [jerry@millerassoc.com](mailto:jerry@millerassoc.com).

net and a questionnaire will be sent to you which you can complete and return along with a photo of yourself.

Many UCLS members were fortunate enough to receive training from great surveying mentors. The Historical Committee would like to

highlight these mentors in the Newsletter. Please consider sharing an experience or describing why this mentor had an impact on your surveying career. Please send a photo and a paragraph of what you would like to share to Jerry Fletcher at [jerry@millerassoc.com](mailto:jerry@millerassoc.com) or Greg Hansen at [greg@hais.net](mailto:greg@hais.net). ◀

*continued on page 20*

# UCLS Board Meeting Agenda

AUGUST 4, 2012

- |   |   |   |   |
|---|---|---|---|
| I) 9:00 am – Executive Committee Meeting (Chapter Presidents and Chair) | a) Letter to NCEES (Engineering Survey) | ii) Date, Plan and Schedule for 2013 Conference | XII) WestFed Report   |
| II) 10:00 am -- Welcome & Call to Order – Brad Mortensen                | VIII) New Items                         | g) Standards and Ethics                         | XIII) UCS Report  |
| III) Roll Call  | IX) Committee Reports                   | h) Testing                                      | XIV) 11: 50 am ± Adjourn  |
| IV) Additions to Agenda   | a) Membership                           | i) Historical                                   | XV) 10-15 minute meeting of the Nomination Committee (Chapter Presidents, Chapter Reps and Chair) |
| V) Approval of Minutes  | b) Public Relations                     | j) Construction Surveying                       |   |
| VI) Secretary Report -  | c) Legislation                          | X) Chapter Reports                              |   |
| a) Budget review and Accountant's Report                                | d) Education                            | a) Book Cliffs                                  |   |
| VII) Follow Up Items  | e) Publication                          | b) Color Country                                |   |
|   | f) Workshop & Convention                | c) Golden Spike                                 |   |
|   | i) Fall Forum (September 7, 2012)       | d) Salt Lake                                    |   |
|   |   | e) Timpanogos                                   |   |
|   |   | XI) NSPS Report                                 |   |

# Brokering of Survey Services

BY WILLIAM E. MCGRATH, PLS

**A**s the surveying profession is undergoing an evolution of changing technologies and methods to achieve various deliverables and even deliverables themselves, so too is the title insurance industry. After the refinancing boom of the early 2000s, major title companies have been gobbling up smaller companies to consolidate a multi-billion dollar industry in an effort to increase profits. Because of the present day downturn in the real estate market, major title companies are seeking ways to maximize profits in a number of different ways. One of the ways is by lowering their overhead costs. Because of the electronic age more and more searches are done online rather than at the county clerk's office. Many of the larger title companies are outsourcing their searching tasks overseas. The other day I needed a deed prior to 1972 in order to complete a survey. Since that particular county clerk's online records only go back to 1972, I have to go get it myself.

Another way major title companies are seeking to increase their revenue source is by bundling more and more products and services to offer their customers in previously untapped markets — everything from employee background checks to environmental due diligence services. The title insurance industry is learning from their big brother, the Health Maintenance Organization (HMO) industry. The HMO industry has become the gatekeeper to your medical care which relegates your doctor to a mere employee of your HMO. To your health care detriment, it is your HMO who decides what medical test or procedure you can have, not your doctor.

The title insurance industry, in following in their big brother's footsteps (HMOs), are now offering "Land Surveys" from their "list of providers." Does that sound familiar? In order to remove the survey exception off their title policy it is THEY and they alone, who



will determine if you need an ALTA survey, a boundary survey that meets the minimum standards of your state board, or something less like an Express Aerial Map. An Express Aerial Map is basically an aerial photograph overlaid by a local tax map or deed plotting. The Express Aerial Map is provided by the title company not a licensed professional land surveyor.

One major title company made the decision to forego the approximately \$30,000 per ALTA survey of commercial sites and opted to pocket \$3,000 to \$7,000 per commercial transaction for their own Express Aerial Map product, which is nothing more than an online aerial with a tax map or deed plotting (which may not mathematically close) super-imposed on the photo.

An ALTA Land Survey is performed by a Professional Land Surveyor licensed in the particular state that the survey is performed, it is prepared and certified to meet the requirements for an ALTA/ACSM Land Title Survey as detailed by the American Land Title Association, National Society of Profes-

sional Surveyors and the American Congress on Surveying and Mapping. A Boundary Survey is a Land Survey that is performed by a Professional Land Surveyor licensed in the particular state that the survey is performed; It is prepared and certified to meet the minimum standards of the rules and regulations promulgated by that particular state where the survey is performed.

Both the ALTA Survey and the Boundary Survey are prepared so the title insurer can make specific underwriting decisions regarding the deletion of the standard survey exceptions within a title policy. When a title insurance company issues a title policy, the holder of the policy wants these standard exceptions removed. Both types of surveys (ALTA & Boundary) will report on the ground matters of concern in relation to these exceptions. Both types of surveys are certified by the surveyor to the title insurer and other parties to the transaction. This extends the liability to the surveyor for any error or matter not reported or shown. Without the added protection having the survey certified to the consumer (insured),



the consumer (insured) would normally not be able to recoup any damages from the surveyor because of privity of contract laws.

Consider the standard title exception pertaining to “...rights, interests or claims of parties in possession not disclosed by the public records.” Even with high-resolution photos, it is virtually impossible to locate property corners and any existing survey ground monuments on an Express Aerial map product. Without an exacting location of property corners, it is impossible to super-impose the property boundary onto the aerial map with any degree of acceptable accuracy. If the boundary cannot be accurately depicted, then the easements locations, which are most likely tied into the boundary cannot be accurately shown. In most instances, there would be questionable situations regarding the possibility of encroachments across property lines or into easements. This would be a detriment to the end user relying on this product in much the same way as an HMO not allowing you to have that biopsy. This particular product could be deemed illegal in some states by offering surveying services without being duly licensed.

In cases where the title company is relying solely on their Express Aerial map product they are taking the risk that no claim will arise regarding the issues raised within the standard survey exceptions. There should be questions asked of the title insurer who may be preparing the map product to suit their best interest rather than those of the ultimate property owner or lender. In order to properly protect the consumer (insured) an ALTA Survey or Boundary Survey should be prepared by a Professional Land Surveyor duly licensed in that particular state, most preferably one with adequate errors and omission insurance. The Surveyor would be acting as an independent outside party, that has no interest in any underwriting decision and can accurately report the facts to be reviewed not only by the title insurer, but by all parties within the transaction.

The main purpose of the ALTA Survey or the Boundary Survey is to allow the title insurer to delete the standard survey exceptions. But, many other parties within a real estate transaction rely upon the survey and

the matters reported thereon during the due-diligence process. The buyer and more importantly their legal counsel who are looking out for their client’s best interests are very concerned about the information revealed on the survey — not only regarding the matters relating to the deletion of the standard exceptions, but the exacting



configuration of the land, matters on the property relating to zoning compliance, restrictions, easements not revealed by public record but observed on the ground by the surveyor.

When the title company uses its Express Aerial map product there is no guarantee to the accuracy of the legal description of record and more importantly, there is no verification of any discrepancy between the recorded legal description and the facts on the ground. On many occasions a legal description is recorded with a typographical error or mathematical error of closure. Without an on-the-ground survey to check for these discrepancies, gaps, gores or overlaps may inadvertently be created causing a potential claim against the property. On a properly performed ALTA Survey or Boundary Survey, the legal description is revealed and the surveyor must note and show any discrepancy between the record and measured dimensions. Furthermore, the surveyor must report any gap, gore or overlap with adjacent deeds. This will not be disclosed on The Express Aerial map product.

Besides title companies offering property surveys from their “list of approved surveyors,” there are a number of survey brokering companies that only offer that service. In reviewing some of the service provider contracts, they don’t allow the professional land surveyor to contact or communicate with the end user client at all. This is not only unethical, it is illegal in many states.

Some of the advertised services these re-invented “Real Estate Due Diligence” companies offer include: Land Title surveys, Elevation Certificates, Flood Zone Determination Certificates, Express Aerial Maps (that have the tax map and/or deed plotting super-imposed), Zoning Reports, Geotechnical Reports, Phase I & II Environmental Reports, As-Built Surveys and the list goes on and on. Many of these services are offered in violation of state licensing laws.

In reviewing some of the disciplinary actions of a number of state licensing boards throughout the country, I have noticed that several have sent out “cease and desist” orders to these companies. One large title insurance company that does over a billion dollars a year in revenue had their attorneys send a letter back to one licensing board stipulating that they were not “offering survey services,” they were merely “coordinators of survey services.” I suspect these companies view these “cease and desist” orders as nothing more than mosquito bites. Some of these “coordinators of survey services” companies could very well be in violation of federal RESPA laws. Some states are using “back door” regulations by disciplining licensees for doing any work for these companies.

What has your state done to curb or regulate this assault on the consumer? What has your state professional organization or the National Society of Professional Surveyors done to lobby for badly needed legislation to protect the consumer? ◀

William E. McGrath, PLS, is a Riparian Consultant that specializes in New Jersey Tidelands issues relating to grants, licenses, tidelands claims and waterfront land use. He is a N.J. Licensed Professional Land Surveyor and is currently Vice President of the New Jersey Society of Professional Land Surveyors. He was chosen as “Surveyor of the Year” by that organization in 2010. He has authored many articles in national professional publications (e.g. Professional Surveyor Magazine 11/10 <http://www.profsurv.com/magazine/article.aspx?i=70829> )

# The Surveyor As An Expert Witness

KNUD E. HERMANSEN, P.L.S., P.E., PH.D., ESQ.

**A** surveyor is often involved in litigation in the capacity of an expert witness. In the capacity of an expert witness, the surveyor performs three functions. First, the surveyor identifies, introduces, and authenticates documents and other information relevant to the disputed boundary. Second, the surveyor explains the relevancy of certain information and how the information is used to fix the position of the boundary. Third, the surveyor gives a conclusion — an ultimate opinion on the location of boundaries and other related matters. If the surveyor performs the first two functions with competence, the surveyor will establish their credibility with the court. A surveyor that appears credible will have their opinion accepted and relied upon by the judge or jury without necessarily a clear understanding or comprehension of the underlying facts and basis for the surveyor's opinion.

The client is well served by the attorney that spends some time evaluating the surveyor in their role as an expert. There are several facets of a surveyor and the services performed by the surveyor that the attorney should examine.

*There are numerous surveyors who are competent and respected practitioners, yet do not portray confidence and sagacity in stressful situations.*

One facet to be examined is the surveyor's ability to handle stress. Some surveyors do not make good experts because of their inability to handle stress. There are numerous surveyors who are competent and respected practitioners, yet do not portray confidence and sagacity in stressful situations. The terror of sitting in the witness chair coupled with the seemingly hostile attention of the attorney and judge often leave these surveyors struggling for simple thoughts, stumbling over words, grasping for answers, spitting out

nonsensical responses, shaking uncontrollably, and sweating profusely. Many are the attorneys who left a courthouse convinced not only that the surveyor had botched the survey and testimony but must have committed all the unsolved crimes in the area given their demeanor on the stand. Given the technical nature of surveying and the difficulty in explaining technical testimony, a good demeanor is an important factor to cultivate. In complex and technical testimony such as required for boundary litigation, it is not uncommon for an incompetent surveyor to be judged a more credible witness because of their superior and calm demeanor rather than the content of their testimony.

*The root of many deficiencies in professional services can be traced to cost conscious clients coupled with surveyors willing to restrict their services based on a price the client is willing to pay.*

An evaluation of the scope and depth of the surveyor's work should also be performed by the attorney. The root of many deficiencies in professional services can be traced to cost conscious clients coupled with surveyors willing to restrict their services based on a price the client is willing to pay. The purpose stated for the services also plays a role in the quality of the surveying service provided. The mortgage loan inspection used to obtain financing is a markedly different service than the boundary retracement survey used to prepare a description or erect improvements. In this regard surveyors are no different than attorneys. What attorney could honestly admit that they provide the same level of estate planning to the blue-collar worker with \$5,000 life savings as compared to the billionaire? What attorney spends the same time on a deed for a \$100,000 house as they spend on preparing a complaint starting a \$1,000,000 lawsuit? The point is that a survey performed for a

timber harvest may not be sufficient to base an opinion on regarding a \$60,000 encroachment lawsuit that occurs many years later.

Also to be discovered by the attorney are surveyors who have arrived at an opinion without complete information or information that is not reliable, credible, or cannot be offered into evidence. An opinion formed without gathering or looking at all relevant information is usually determined to be untrustworthy and susceptible to impeachment. This situation is cause for the surprise of many experienced attorneys when they realize that the surveyor did not perform a complete search or limited the measurements to certain corner monuments that were convenient and failed to use others' monuments more credible but less convenient.

For the surveyor to have had all the information but use it improperly is no less embarrassing for the attorney attempting to build a case on the testimony of the surveyor. There are numerous cases where the surveyor has testified at some length to the care and accuracy of their research and measurements only to admit they began their services at an unverified point indicated to the surveyor by the client. Equally problematic are the situations where the surveyor has relied entirely upon private records that clearly contradict the valid deeds recorded in the public records. In a few cases, surveyors have relied on procedures or priorities that do not conform to the rules of construction or priority of control established by the courts.

These problems oftentimes arise by oversight or mistake made by otherwise competent surveyors. In a few cases, the surveyor is simply not competent. Few attorneys are aware that licensing surveyors is a relatively recent event in many states and certainly was not foolproof in insuring competence of the individual before licensure. There are



numerous surveyors practicing that have never had to take a test or prove their competency in order to obtain their surveyor's license. When licensing of surveyors began, persons that applied and could show sufficient experience or education were given a license to survey without testing or further verification of qualifications.

Before continuing, it must be stressed that not all surveyors who were licensed without examination or other proof of competency are incompetent surveyors. On the contrary, some of the finest surveyors practicing were licensed in this manner.

*While there are many examples to the contrary, the presumption will always be that the more education a person has, the more knowledgeable they will be.*

There is also wide diversity in surveyor qualifications. These qualifications must also be examined and evaluated for the impact the qualifications may have upon the perceived credibility of the surveyor. While there are many examples to the contrary, the presumption will always be that the more education a person has, the more knowledgeable they will be. There are no mandated formal education standards for surveyors in many states. Experience prior to licensing also varies. Some surveyors have no college education while a few have a Ph.D. Between the two extremes are numerous surveyors with two, four-year, and various graduate degrees. Among surveyors with a college education there is a wide variety of degrees ranging from fine arts to engineering.

Compliance with mandatory standards should not be overlooked in analyzing the surveyor's services. In many states, surveyors have had to perform according to mandated standards or expressly except all or parts of those standards by agreement with the client. Some surveyors have ignored the standards. Other surveyors have misinterpreted the standards. A few have not understood the standards. Several

surveyors were unaware standards existed for many years. Some surveyors have ignored or excepted certain parts of the standards that could prove critical in formulating a correct opinion or communicating a credible opinion.

In defense of the surveyors who have not studiously adhered to the standards or taken exception to certain parts, adherence to all parts of the standards is to substantially increase the cost of surveying services without necessarily affecting the accuracy of the surveyor's opinion. For example, the preparation of a complete report alone will often add hundreds of dollars to a typical retracement survey yet may have no effect on the location of the boundaries that were re-established.

The attorney must not only check that the surveyor is competent but must sometimes check those persons that the surveyor relied upon are also competent. Few surveyors do all the work required for a boundary retracement, instead relying on employees to do some or most of the mundane technical aspects of the work. In this regard, surveyors and lawyers share a common weakness as more and more work is delegated to non-professional employees within a firm. Untrained or minimally trained personnel often overlook important information or fail to catch and correct omissions. Compounding the problem is the large number

A surveyor that appears credible will have their opinion accepted and relied upon by the judge or jury without necessarily a clear understanding or comprehension of the underlying facts and basis for the surveyor's opinion.

of personnel and projects supervised by some surveyors. As the work load increases for the licensed individual, review and checks become cursory or omitted on many projects. Proper supervision declines. Important pieces of information are undiscovered or the significance overlooked. The result is that in some cases the surveyor whose seal and signature appear on the plan had little to do with the services that the plan represent. As a consequence, the surveyor cannot always say why information was omitted or mistakes not detected.

Finally, the mindset of the surveyor should be explored. The attitude or mindset of a surveyor often has a major impact on the quality of the surveying services and the credibility of the surveyor as an expert. The attitude or mindset refers to what the surveyor understands a surveyor's responsibility to the client should be and the ethical limitations of professional practice. For example, there are a few surveyors that look upon themselves as technicians. (E.g., "You tell me where to put the corner and I'll make the measurements between the corner locations you selected.") At the other end are a few surveyors who believe they have the power and right to determine all matters pertaining to boundaries including title issues. These surveyors feel qualified and authorized to determine boundaries based on acquiescence, estoppel, adverse possession, and other equitable doctrines. (E.g., "The stone wall has been there for 20 years so your boundary is now the wall despite what your records say.")

*It is not unusual for the extent of the dispute to exceed the ability of evidence to support the claim.*

In discussing the surveyor and survey services, it would not be fair for the surveyor's competency as an expert to ride entirely upon the surveyor's ability, background, and care. More times than good conscience should allow, attorneys have encouraged litigation to begin or continue where the costs of litigation far exceed the value of the area disputed. Similarly, attorneys will attempt to build "castles on sand." For example, it is not unusual for the extent of the dispute to exceed the ability of evidence to support the claim. Such would be the case where two neighbors are arguing over half a foot (the location of the old oak tree) when the nearest monuments that can be used are the center of a road and a four foot wide rock wall several hundred feet away. In other cases, the technical complexity or reliability of the evidence exceeds any reasonable ability for the typical jurist or jury to understand. The fact is that a vast majority of boundary disputes should and could be handled through mediation by a knowledgeable mediator or presented before a real estate attorney or surveyor acting in the capacity as an arbitrator.

*continued on page 16*

In some boundary disputes that go to litigation, adequate preparation and investigation by the attorney is often lacking. Many surveyors share the experience where they receive a call from an attorney seeking services as an expert a short time before trial. There are also numerous times when the client's attorney has never attempted to speak to the surveyor until shortly before trial or, in some cases, the day of trial. Also of some frequency are situations where a boundary dispute goes to trial where each side is equally burdened by incompetence be it the surveyor or attorney. Many decisions by courts are based on the lesser of two evils rather than a clear presentation and analysis of the evidence by the so-called experts and attorneys employed by each side.

*The attorney should make a great effort to prepare an expert on how to communicate their opinion.*

A common problem that frequently arises for the surveyor who is sought as an expert is the attorney who seeks a "hired gun" or advocate for the client's position. Ethically, a surveyor is obligated to perform an unbiased analysis to arrive at an opinion on

the location of the boundary by a fair and reasonable interpretation of the operative conveyances guided if need be by a proper application of the rules of construction as established by appellate court decisions. Consequently, the surveyor's responsibility in retracing a boundary should be independent of the client's needs, wishes, or best interests. The attorney should not influence an expert witness in formulating an opinion (i.e., what to say). The attorney may and should, however, make a great effort to prepare an expert on how to communicate their opinion. This is an important distinction lost among some attorneys. If the surveyor has been allowed to arrive at an unbiased opinion on the location of a boundary, the surveyor is cautioned that a diligent effort is expected from the surveyor to defend that position — to become an advocate for their opinion.

*A court appointed surveyor should be considered in all boundary litigation cases.*

In closing a discussion about employing surveyors in litigation, one option that is often ignored by attorneys is to seek the

appointment of a surveyor through the court to locate disputed boundaries — a court appointed surveyor. This option will be discussed in a future article.

In closing, it is my experience that most surveyors would rather earn a fee in some other manner than as an expert witness. While successfully educating the judge or jury can be a rewarding experience, the process is often fraught with stress and difficulties. Explaining a complex and technical analysis within a limited time frame is difficult enough. However, within the confines of a courtroom, the explanation must be done with frequent interruptions brought about by objections, trick questions, poorly worded questions, and under the ministrations of at least one hostile attorney who is trying very hard to make the surveyor or the surveyor's testimony appear faulty, biased, incomplete, and irrelevant.

Nevertheless, the role of a surveyor as an expert is an important one that must be approached with a motivation to educate, a willingness to communicate effectively, and an acceptance of the difficulty that attenuates the process of giving testimony in litigation. ◀

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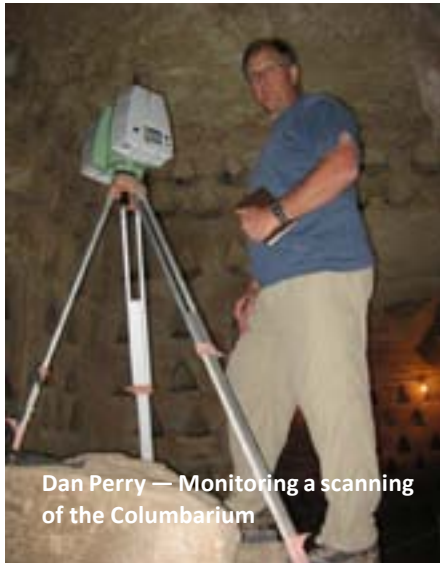


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# Geospatially Measuring and Modeling an Israeli Archeology Site Nearly 2,500 Years Old

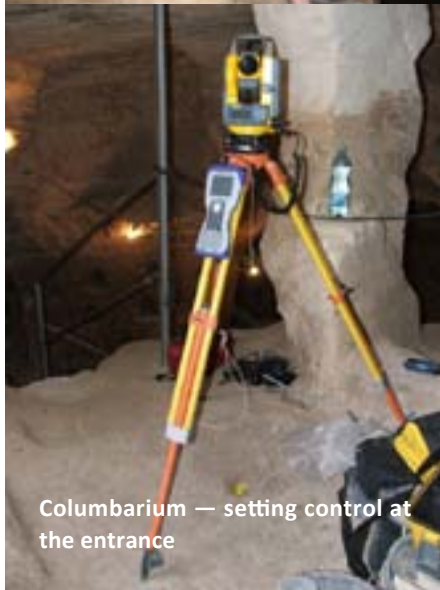
BY DANIAL L. PERRY, PLS, MBA



Dan Perry — Monitoring a scanning of the Columbarium



Darin Taylor setting up the C10 in the Columbarium — The triangular shaped cutouts are the carved niches for the doves or pigeons. These were still being used 2000 years later. The pigeons were flying in and out all day while we were scanning.



Columbarium — setting control at the entrance



Site Overview with Byzantine Chapel in the foreground



Site Overview with Byzantine Chapel in the foreground



Site Overview with Byzantine Chapel in the foreground

**F**or thousands of years this site has been called by Bedouin’s “Beit Lehi” translated from Hebrew meaning “House” or “Ruins of and “Lehi” meaning “jaw bone.” Located approximately 25 miles southwest of Jerusalem on an Israeli military base this ancient subterranean site was first discovered by soldiers while they were constructing a road near the west bank in 1969 and is now thought to be an ancient village or city of some significance with reference made to it

by the famed and ancient historian Josephus Flavius. The site is also the traditional and widely accepted site of Samson’s Well where a thousand Philistines were killed by Samson with the jawbone of a donkey as recorded in Judges 15:19. So far (excluding Samson’s Well) excavations have shown that the site dates back nearly to the Iron Age (500 BC).

The Beit Lehi Foundation ([www.beitlehifoundation.com](http://www.beitlehifoundation.com)), a non-profit organization was setup in 2005 to “advance the understand-

ing and awareness of the general public of ancient religious history associated with this site through scientific research and education.” Because of this mission and recent excavations completed on the site in 2010 the foundation president, Alan Rudd, asked the Engineering Graphics and Design Technology department at Utah Valley University (UVU) ([www.uvu.edu](http://www.uvu.edu)) located in Orem, Utah ([www.orem.org](http://www.orem.org)) to get involved with them in designing and constructing a visitor’s center, parking facility, pedestrian

*continued on page 18*



Byzantine Chapel, Mosaic floor



Digital Media student Bob Foote setting up for a photo shoot of the scanning process



Students Dave Nelson and Ryan Phillips making a difficult setup without a tripod in part of the Olive Press facility



Curtis Sorenson, student setting up in a difficult spot



Scanning the Stable with Kevin Bishop, Student in Storage Opening

pathways, and other on-site public and preservation facilities, as well as archaeological survey information. UVU's efforts are now directed by Darin Taylor, a Drafting Technology professor who has made the project into an official UVU study abroad program which offers Drafting, Geomatics, Digital Media, and Construction management students and faculty an opportunity to get engaged in an international project where they can apply skills and knowledge they have learned in school by contributing their time and expertise.

The scope of the project expanded to include not only conventional surface surveying using GPS, Total Stations, and Automatic levels, but also 3D laser scanning using a Leica Geosystems™ C10®. The C10 is used to scan the entire ancient and recently excavated sub-terranean facilities including the Olive Press, Ritual Bath (Jewish Mikveh), Byzantine Chapel, and Columbarium's (on this site a place used anciently for the raising of doves and/or pigeons).

Like any good site survey the most important task in starting a project is to establish a good survey control network so that all additional site surveys including scanning could be tied to this same control network. During the first year (2010) the UVU team consisted of ten people including faculty Darin Taylor and Dan Perry, and four Drafting/Geomatics students as well as a Digital Media (DGM) faculty and two students. While surface control was being established based on assumed coordinates (in feet) by Darin and his team of students using the total station, Dan and his two students began scanning the Olive Press and Ritual Bath. These two facilities had recently (previous 3 years) been fully excavated revealing three olive presses and one pressing/grinding stone as well as a limestone quarry at the bottom of the press area.

All the sub-terranean facilities on this site and in this area of Israel were carved out of a soft limestone material lying below a hard limestone 6-9 feet (2-3 meters) thick above which is a 0.5-1 meter thick layer of

topsoil. This hard crust serves as an excellent and reliable ceiling for these manmade underground installations some of which were carved as early as 400 BC. These facilities had various purposes depending on the need of the occupants but we know they were carved from soft limestone material which made for relatively easy digging and the temperatures were much cooler than working on the surface which can sometimes get as hot as 110° F. The Leica C10 had no problem obtaining good reflective surface data from this material but great care was taken in obtaining accurate registration targets to improve the overall accuracy of the registered point clouds. We obtained over 10 million data points just from the Olive Press and Ritual Bath together not including all the other facilities scanned. A medium scan resolution setting was selected as a trade-off between speed and resolution and considering the point loss in migrating to Leica Geosystems™ Cloudworx® software which was done for subsequent drafting required by the archeologist.

Several subterranean facilities were scanned over the past three excursions to Israel and Beit Lehi, including the Olive Press consisting of a large main room approximately 6.4 meters tall, 9.3 meters at its widest point and 10 meters at its longest point, the Ritual Bath (Jewish Mikveh) which is approximately 5.0 meters tall, and 4.8 meters square, the Columbarium at approximately 16 meters wide, 17 meters long, and 5 meters tall, the



small Christian Chapel, Byzantine Chapel (on the surface), the Donkey Stable, and the foundation of a watch tower on the south side of the village.

During post processing the Mikveh was chosen as a sample of the type of 3D modeling we could provide to the Beit Lehi Foundation. From this model we subsequently produced a scaled 3D print of the Mikveh using a Dimension® Elite™ 3D printer for visualization purposes. This printed model was well received and we anticipate eventually making a scaled model of the entire village showing the relationship of the subterranean facilities to each other and to the surface of the site.

Subsequent excursions to the site in May of 2011 and again this past May yielded additional scanning and surveying work using not only the total station but also GPS and an automatic level. Drafting and Geomatics students traded off between the scanning team, the survey control team (with the total station), the leveling team, and the GPS team thereby allowing each student a chance to get some real-life exposure to conventional survey instruments on the surface and the new C10 laser scanner underground. The automatic level and GPS equipment were used to check and improve on the vertical and horizontal and vertical control network. According to Dan Perry, surveying project lead, we now have enough site and topographic data to design an entry road, the visitor's center and parking lot, and other preservation and maintenance facilities.

The first excursion was a total of 10 days in Israel which included 3½ days of touring to several famous visitor spots in Israel such as the Dead Sea (Qumran, En Gedi, and Masada), Caesarea, Joppa, and of course Old Town Jerusalem. The excursions in 2011 and 2012 were 13 days each. The students say it was the "experience of a life time" and their participation in this UVU Study Abroad program will look good on their resumes too. ◀

Daniel L. Perry, PLS, MBA, has over 15 years of field experience as a surveyor in Oregon, Idaho, and Utah and is currently employed as an Associate Professor and Geomatics Program Coordinator at Utah Valley University located in Orem, Utah. For more information about UVU, the UVU Geomatics Program, and/or the Beit Lehi project please email Dan at [perrydl@uvu.edu](mailto:perrydl@uvu.edu) or visit their website at [www.uvu.edu/geomatics](http://www.uvu.edu/geomatics).

# UTAH TRIG – STAR NATIONAL CONTEST RESULTS 2011-2012



**T**his year the First Place Winner of the State Contest was Brett Loertscher from Clearfield High School. He participated in the national contest around the end of June. We should congratulate Brett as he has scored higher than any of the Utah students have in the past; 13th place out of the 34 State winners.

## The Richard E. Lomax National Trig-Star Awards are as follows:

First Place: Laura Souza Vonessen, Sentinel High School, Missoula, Montana - \$2,000 Prize

Second Place: Sean Phenisee, Graham Kapowsin High School, Graham, Washington - \$1,000 Prize

Third Place: Wilfred Gao, Valley Catholic High School, Beaverton, Oregon - \$500 Prize

The following is a list of the remaining State Winners in the order of finish:

Camille Robbins, North Carolina; Shi-ke Uxue, Iowa; Nicholas Agia, Pennsylvania;

Sachith Gullapalli, Virginia; Joe Barton, Illinois; Zhengyuan Ma, Hawaii; Alyssa Abraham, Missouri; Taylor Morris, Tennessee; Ngan Phung, New Jersey; Brett Loertscher, Utah; Thomas Cleary, New Hampshire; Jordan Goldstein, Maryland; Erik Oder, Alaska; Marimar Velez Ruiz, Puerto Rico; Stephan Hu, Indiana; Daniel Brown, Alabama; Francis A.W. Allen, Georgia; Kim Chung, California; Cooper Blas, Idaho; Apolonio Martinez III, Colorado; Devin Vancleef, New York; Urmil Patel, Ohio; Kyle Satterstrom, Wisconsin; Yinshuo Zhang, Minnesota; Angela Zhang, Texas; Cal Salisbury, Michigan; Anthony Abbazia, Connecticut; Nicholas Sunkler, Delaware; Macy Morrison, Maine; Seth Lubbers, Kansas; Yang Si (Sienna), Nevada.

The National Trig-Star committee met on July 13, 2012 to determine the three top high school students from the national examinations submitted by state winners. This year there were 34 state winners submitted. A past president of NSPS, Richard Lomax was the driving force behind the elevation of the local Trig-Star program to the national level. In October 1994, Board action named this high school trigonometry skill award in his honor.

## The Richard E. Lomax National Teaching Excellence Awards are as follows:

First Place: Sue Dolezal, Sentinel High School, Missoula, Montana - \$1,000 Prize

Second Place: David Andersen, Graham Kapowsin High School, Graham, Washington - \$500 Prize

Third Place: Kipp Johnson, Valley Catholic High School, Beaverton, Oregon - \$250 Prize ◀

# Membership Committee Report

DAVID BRONSON

**T**he committee has had three meetings, via conference calls. We have worked through the bugs with conference calls, but it is still not the same as a face to face meeting. We have been working on the three items that the board had assigned us.

1. Participation points system
2. Life insurance options
3. PDH reviews

We have made progress in all three, but work still needs to be done before any recommendations can be made to the board. I thank the people who have agreed to serve on the membership committee and would ask if there is anyone who would like to help out. We would certainly appreciate the help. If anyone is interested you can contact me at the information below. ◀

David Bronson  
dabronson@sanjuancounty.org  
1-435-587-3234 work  
1-435-459-9917 cell

# NSPS Report

STEVE KEISEL



**N**SPS is making plans for its September meeting and the following are anticipated items of discussion:

1. ALTA/NSPS committee to consider—
  - a. BoG proposal for ALTA/NSPS certification,
  - b. issues surrounding \$500 re-certification of maps,
  - c. homeowner certifications,
  - d. brokering of survey services (LS ALTA vs. Express Map).
2. How could eLOMA changes affect surveying in your state?
3. Promotion of NSPS - Discussion to address the need for a historical document archive/timeline of the issues that NSPS has addressed, so that any interested party could see what NSPS has done to represent surveyors across the country, currently and in the past.
4. General discussion about successes and difficulties of implementing the proposed 100% membership. ◀

# Public Relations Committee Report

JAMES COUTS, UCLS PUBLIC RELATIONS COMMITTEE CHAIR



**T**he PR Committee is currently progressing with several initiatives.

The UCLS website is in the process of being updated, and is currently about 95% complete. We anticipate that it will be rolled out within the next 2 months. MemberClicks has done an excellent job aided by Jeff Searle, a UCLS Board and PR Committee Member. The PR Committee will be making assignments to other committees for page content and would appreciate the board's full support in these assignments.

The official UCLS seal and logo have been modified and updated to be more multi-medium friendly as well as more professional. The changes were minimal and keep the history behind the original logo.

The UCLS sponsored the American Society of Professional Estimator's annual golf tournament. UCLS flash drives were given out to almost 100 ASPE members, general contractors, and associates. The UCLS booth was

set up at the tournament luncheon, and all indications are that it was very successful. The UCLS looks to add a presence at several other golf tournaments by related societies as well as Utah legislators.

The PR committee also looks to get involved with sponsoring activities with related societies and organizations. This might include joint chapter meetings (monthly luncheons) with the ASCE or similar organizations.

Along with our other efforts, the PR Committee will be reaching out to the Boy Scouts of America (specifically districts and councils) to develop a more formal relationship between the UCLS and the BSA. We hope to sponsor several Survey Merit Badge workshops in the upcoming years.

We will be updating our booth in the next couple months, to coordinate with the new look of the website. We anticipate several combinations of booth appearances for the various conventions and events we will attend.

The PR committee is always on the lookout for ways to improve the public's perception of the Surveying profession. We are open to suggestions from the UCLS Board as well as the general membership. If you have anything you would like to offer, please join us at the next PR Committee Meeting. They are held the 1st Thursday of each month at the ECI Survey Office: 660 W 700 S, Woods Cross, UT 84087 (for additional details email: james.couts@ecisl.com).

Thank you for your continued support. ◀



# Publication Committee Report

STEVE KEISEL



**T**he UCLS bylaws indicate the principal duties of the Publication Committee shall be to prepare and mail newsletters and other announcements to the membership of the Corporation. To that charge, the publication committee is pleased with the interest and success of the UCLS Newsletter, but hope to make it better and more useful to the membership. The publication committee welcomes and encourages contributions, comments and suggestions.

One such suggestion received, was to include a monthly “getting to know our members”

section. In the July edition, Jim Pitkins and Nolan Hathcock graciously contributed a short bio of themselves and their respective surveying career. In each edition of the Newsletter, we hope to highlight additional members throughout the state and in various stages of their careers.

The “who is it – where is it – what is it” section of the Newsletter has also generated a great deal of interest and support. Typically, the membership responds with five to ten guesses on who, where, or what is it.

If you are not receiving a monthly email notice and link to the UCLS Newsletter, may I suggest you review your current UCLS membership profile and/or contact Susan for help?

The publication committee schedules few formal meetings — rather we correspond via email and phone. Regardless of where you live or work, you should be able to participate with and contribute to this committee. Please let Susan, a Board Officer, or myself know if you have an interest in working with the Publication Committee. ◀

# Western Federation of Professional Surveyors Report

RON WHITEHEAD



**R**eport to Utah Council of Land Surveyors on the Western Federation of Professional Surveyors Board meeting held 6-02-2012 in Seattle, Washington.

The meeting was called to order at 8:00AM and a quorum was declared with representatives from all 13 states. New Delegates were introduced as follows: Carla Merritt – Washington, Earl Morriss – Washington, and Kate Schalk – Hawaii.

Minutes of the last meeting were approved with a few minor corrections.

**Chairman’s Report:** Chairman Baldwin reported on attending the NSPS spring meetings and the fiscal impact of the ACSM/NSPS merger. Harold reported that the Arizona NSPS Governor indicated that states could buy a seat on the NSPS Board of Directors by purchasing a NSPS Sustaining Membership for \$1,500.00. NSPS Executive Director Curt Sumner clarified that NSPS sustaining membership does not include a seat on the

NSPS Board of Directors, however there is a possibility that a seat on the Board of Directors will be given to those states that opt for the 100% membership requirement.

Harold reported speaking to GLIS and CFedS about future collaborations for educational opportunities.

## Chairman-Elects Report:

Richard Heieren reported that he was able to secure matching funds up to \$25,000 from NCEES to support the TwiST Program. Unfortunately TwiST training was cancelled this year due to a lack of participation. Richard will try to set the same program up for next year with the matching funds from NCEES. Richard suggested that WFPS seek formal affiliation with NCEES as a part of the participating Organization Liaison Council (POLC). Richard also suggested that WFPS formalize their relationship with NSPS, some discussion on whether we should remain separate or not. Curt was asked to send Dorothy examples of MOU’s other organizations use with NSPS.

## NSPS Report:

NSPS Executive Director Curt Sumner gave us a report on NSPS activities, stating that they are trying to cut back on expenses and they will be moving the office to a new location to help with the cost saving action.

AAGS has signed an affiliation agreement with NSPS and they will provide administrative services to AAGS.

The corporate merger between ACSM and NSPS should be complete in approximately one month.

There was a lot of discussion on the amount of misinformation that is coming out on what NSPS is doing and how that could be stopped. Curt responded that it is hard to issue reports on things that are changing so fast that it makes the reports incorrect before they go out.

NSPS’s request for 100% membership was discussed. Curt indicated that NSPS is still gathering information and nothing has been

*continued on page 22*

formalized yet. They are estimating that dues would be \$50 or less for states that adopt 100% membership. Nancy Almanzan reported that most states will have to change their bylaw in order to participate which means that it will be at least two years before anything could take effect.

### Conference Committee:

Ron Whitehead reported that the Conference committee is working on the 2013 UCLS/WPPS Conference. Chairman Baldwin requested UCLS/WFPS consider inviting NSPS to join in on the conference. Curt responded that he was sure NSPS would be interested in holding the Spring Business meetings at our conference and he would check on the interest in NSPS joining the Conference. Curt indicated that they would like the Student Competition

to be a part of our conference even if NSPS was not one of the conference partners.

Motion to authorize Ron Whitehead to explore the option of including NSPS in the UCLS/NSPS Conference and if feasible authorize him to negotiate and sign an MOU with NSPS.

### Good of the Order:

Linda Smith requested a poll of the states regarding their support of the 100% NSPS membership.

- Arizona – In favor
- Alaska – Has been in place for a number of years
- California – Opposed
- Colorado – Unknown

- Hawaii – Unknown
- Idaho – Not enough information
- Nevada – Opposed
- New Mexico – Unknown
- Oregon – Not enough information – cost too much
- Utah – Not enough information
- Washington – Agree in concept – Doubtful it will pass
- Wyoming – Agree in concept but has to go to membership

Meeting adjourned at 5:00 pm The WFPS Board waited until 5:30 and then met with Mike Mickiewicz’s family to discuss the Final Point Monument and the celebration of life service afterwards. Mike’s wife, daughter and two sons were there to meet with us. (Very nice family).◀

# UCLS Education Committee Meeting Minutes

MEETING HELD AUGUST 2, 2012 | PRESENT: DAN PERRY AND CHRIS MOORE

**B**ased on previous meetings we discussed the following topics and issues.

## 1. Education Initiative

We discussed the possibilities and potential need for additional continuing education of member surveyors. This idea was presented last meeting by Dave Balling. Specifically, of developing and providing specific seminar/workshops varying in length from half-day to 3-4 days on topics which will advance the field of surveying and which will bring or keep surveyors current with knowledge, skills, and understanding. Some of the topics could include Photogrammetry, Remote Sensing, GIS, and other topics which will have a professional rigor level. Of course PDHs credit would be given upon successful completion.

These seminars/workshops could be offered either on-line or in a classroom but in either case could be offered through either SLCC or UVU because both institutions are already organized to provide such services. The faculty would be drawn from our own

surveyors of guests as deemed necessary and they would be paid for teaching. Some of the courses could also be offered to the general public which could also help promote and teach people about what we do.

One of the concerns with offering such courses/workshops/seminars is that we would not want such training to conflict with or diminish the continuing education already being achieved during the Convention, the Fall Forum, or other training sessions conducted by UCLS Chapters and other such forums.

The committee decided to discuss this further with the board and develop a survey of the surveyors at the convention to determine what topics would be most important/popular/needed. The whole idea is to provide a professional source for the advanced surveyor to continue to remain current with the profession in all its varied aspects.

## 2. UCLS Scholarship Funding

Dan Perry spoke about what has traditionally/historically been done regarding fundraising activities for the UCLS Scholarship fund. We

concluded that the silent auction is a good tradition that most everyone who attends the convention is accustomed to seeing and participating in. We still expect some financial support for certain prizes but are in need of HELP with contributions of items for auction. Please look around your office for old equipment, instruments, promotional items (t-shirts, etc.) that we can auction off in the 2013 convention.

### Assignments:

Dan Perry will meet with UVU Continuing/Community Education program people to find opportunities to develop and provide surveying seminars/workshops and will report back to the committee about details including costs, etc.

Chris Moore will contact chapter presidents asking them to remind their members in the next few chapter meetings that UCLS needs donation items to auction

Christ Moore will solicit UCLS members for more help on the education committee in preparation for the convention auction.◀



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## AGENDA

Friday September 7,  
2012  
8 a.m. to 5p.m.  
Utah Valley University  
Student Center (SC),  
Centre Stage  
  
Hosted by Utah Valley  
University  
Geomatics Club

- 7:30 Continental Breakfast – Vendors*
- 8:00** Conference Welcome  
Dan Perry, UVU  
UVU Geomatics club
- 8:30** BLM – Ross Workman  
Public Land Survey System History
- 9:30 Break – Vendors*
- 9:45** BLM – Calvert Norton  
Public Records and GIS
- BLM – Ross Workman  
Section Subdivision
- 12:00 Catered Lunch – Vendors*  
CST program Walt Cunningham
- 1:00** BLM Case Study – Dan Webb  
Section 9, Original Evidence, Escalante
- BLM Case Study – Steve Hope  
Section 7 and 8, Overlap & Hiatus,  
Tooele
- 3:00 Break – Vendors*
- 3:15** BLM Case Study – Mike Thompson  
R1&2W, Local Control, Aurora  
BLM Case Study – Matt Kurchinski  
Reversionary Rights, Research, &  
Congressional Land Actions in Salt Lake  
City
- 5:00** Adjourm

## Presenters

### *Steven Hope*

Steve is currently employed with the Bureau of Land Management as the PLSS Data Steward over federal interests in the state of Utah. In 1991, the BLM recruited Steve to start collecting the digital portrayal of the Public Land Survey System. Steve has maintained his Professional Surveyors License, to practice in the State of Utah, since 1987. He began surveying as a chainman in the Uinta Mountains in 1976 with the Wasatch National Forest. Steve received both his Bachelors and Masters degrees from the University of Utah.

### *Matt Kurchinski*

Matt has 22 years of experience with boundary and construction surveying in both the public and private sectors. He has worked for 16 years in Cadastral Surveys with the BLM in Wyoming, Alaska, Arizona, and Utah, beginning as a Surveying Technician. His current position is at the BLM Utah State Office as a Reviewer. Matt is a 1992 graduate of the University of Southern Colorado with a Bachelor of Science in Civil Engineering Technology. Matt is also registered as a Professional Land Surveyor in Idaho.







## Presenters (continued)

### *Calvert Norton*

Cal has been at the BLM Utah State Office as Land Surveyor - Reviewer for two years; from 2006 to 2010, a survey technician (Student Career Experience Program) with BLM Utah; and from 1995 to 2003, survey technician with Manti La-Sal and Uintah-Wasatch Cache, Forest Service. Cal is a 2008 graduate of Salt Lake Community College with an Associate of Applied Science in Surveying and 2010 graduate of Idaho State University with a Bachelor of Science in Geomatics Technology.

### *Michael Thompson*

Michael is currently employed by the BLM in the Utah State Office as a Land Surveyor/Reviewer since 2002. Prior to that, he worked for the U.S. Forest Service on the Chugach National Forest in Anchorage, Alaska, for 9 years as a Field Surveyor. He has surveyed in numerous remote regions of Alaska, including Prince William Sound, St. Lawrence Island, Kayak Island, and less wild parts of Utah. Michael is a graduate of the University of Alaska, Anchorage, with a Bachelor of Science degree in Geomatics; and registered as a Professional Land Surveyor in State of Alaska.

### *Daniel Webb*

Dan is Chief Cadastral Surveyor for the federal government in Utah. He has worked for BLM as a Land Surveyor in Alaska, the Washington D.C. Headquarters Office, and now in Utah for 15 years. Dan is a 1980 graduate of Michigan Technological University with Bachelor of Science in Land Surveying; and registered as a Professional Land Surveyor in State of Alaska.

### *Ross Workman*

Ross began working with the BLM in 1960 as a survey aide. He attended the University of Utah, majoring in Civil Engineering and Surveying. In 1968 Ross became a permanent employee in Utah as Jr. Party Chief. His career took him in January 1975 to the BLM Alaska State Office; in the fall of 1975 to Washington DC Office on a three month detail; in November 1976 to the Arizona State Office as the Chief of the Office Section; and in March 1978 he returned to the Utah State Office, becoming Chief of the Office Section. He became a registered Land Surveyor for the State of Utah in 1979 and is presently teaching the Public Land Survey System (PLSS) courses at SLCC and UVU.

## **REGISTRATION**

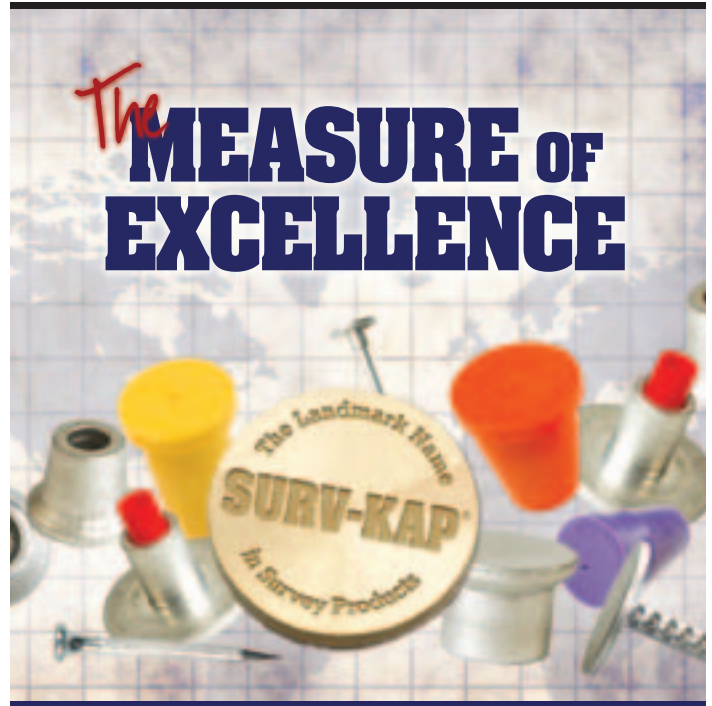
- UCLS Member Registration Full Day (includes lunch) \$80.00
- Non UCLS Member Registration Full Day (includes lunch) \$100
- Half-day Registration (morning or afternoon) \$60.00
- Student Full-Day (includes lunch) \$30
- Student Half-Day (morning or afternoon) \$15
- Lunch only \$20

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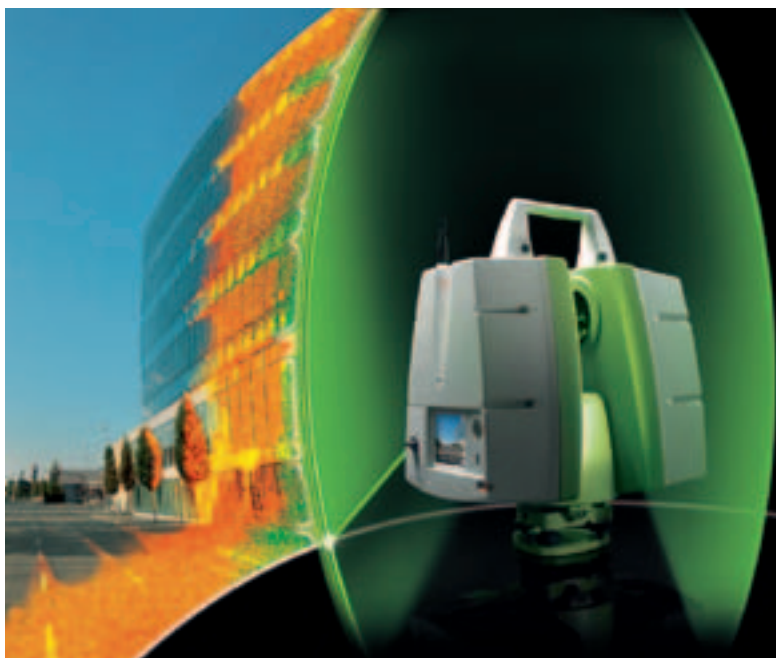
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# A letter from the Bureau of Land Management



*Mr. Brad Mortensen  
Chair, Utah Council of Land Surveyors*

*Attention: Mr. Steve Keisel  
UCLS Publication Committee Chair*

**T**his letter is to inform you of official cadastral surveys in Utah that have been accepted in 2011 and are available from the Public Room, Bureau of Land Management, Utah State

Office, 440 W 200 S, Suite 500, Salt Lake City, Utah, 84101. These records are also made available at the BLM internet web site:

<http://www.blm.gov/ut/st/en/prog/more/cadastral.html>

As accepted original surveys, resurveys, or supplemental plats are completed, these are posted by township to the BLM internet site and available in the BLM Public Room.

Note: The use of an asterisk [\*] denotes "Plat Only" townships. There will not be a set of field notes for these townships.

*Sincerely,*

*/s/ Daniel W. Webb  
Chief Cadastral Surveyor for Utah*

1	1120	T40S R4W	SLM	1/5/2011	1727-A
2	S285	T36S R14W	SLM	1/7/2011	1637-E
3	S295	T10S R8W	SLM	1/7/2011	760-D
4	S296	T9S R8W	SLM	1/7/2011	692-C
5	1116	T12S R19W	SLM	1/11/2011	853-C
6	1121	T38S R3W	SLM	1/19/2011	1675-A
7	1108	T4S R3E	USM	1/24/2011	640-B
8	1110A	T15S R13E	SLM	1/31/2011	953-D
9	1110B	T15S R14E	SLM	1/31/2011	954-D
10	1109	T4S R2E	USM	1/31/2011	642-G,H,I
11	1127A	T41S R10W	SLM	2/18/2011	1751-E
12	1127B	T42S R10W	SLM	2/18/2011	1784-C
13	S299	T26S R13W	SLM	2/18/2011	1346-B
14	1100	T41S R20E	SLM	3/4/2011	1763-B,C
15	1077	T40S R21E	SLM	3/4/2011	1720-D
16	1122A	T36S R23E	SLM	3/8/2011	1618-B
17	1122B	T37S R23E	SLM	3/8/2011	1667-B
18	1132	T4S R8W	SLM	3/21/2011	527-A
19	1128	T1S R7W	SLM	3/21/2011	395-C
20	1129	T2S R7W	SLM	3/21/2011	452-D
21	1130	T3S R7W	SLM	3/21/2011	464-B
22	1036	T3S R8W	SLM	3/21/2011	463-C
23	1097	T36S R22E	SLM	3/28/2011	1619-G
24	1131A	T31S R15W	SLM	4/1/2011	1480-A
25	1131B	T31S R16W	SLM	4/1/2011	1479-A
26	1148	T42S R14W	SLM	4/5/2011	1788-H
27	1052	T2S R6W	SLM	4/15/2011	451-F
28	1060	T23S R9W	SLM	4/20/2011	1291-B
29	964A*	T30S R7W	SLM	4/28/2011	1464-D
30	1025	T33S R9W	SLM	4/29/2011	1544-D

31	918	T36S R11W	SLM	5/6/2011	1634-C
32	1137	T13S R19W	SLM	5/6/2011	856-A
33	1054A	T6S R7W	SLM	5/9/2011	599-C
34	1054B	T6S R8W	SLM	5/9/2011	600-B
35	S303	T42S R15W	SLM	5/11/2011	1789-E
36	1063	T25S R8W	SLM	5/31/2011	1290-C
37	1138	T41S R17W	SLM	6/1/2011	1744-B
38	1080	T8N R18W	SLM	6/2/2011	187-B
39	1078	T27S R20E	SLM	6/7/2011	2318-B
40	1089A	T18S R2W	SLM	6/8/2011	1050-C
41	1089B	T18S R3W	SLM	6/8/2011	1051-B
42	1133	T42S R16W	SLM	6/10/2011	1790-J
43	1085	T34S R9W	SLM	6/30/2011	1576-D
44	1134	T43S R24E	SLM	6/30/2011	2521
45	1136	T9S R19W	SLM	6/30/2011	684-C
46	1139	T2S R7W	USM	6/30/2011	580-B
47	1164	T16S R7E	SLM	9/2/2011	970-D
48	824A*	T2S R3E	SLM	9/6/2011	334-E
49	904A*	T11S R3W	SLM	9/6/2011	790-G
50	914A*	T3S R22E	SLM	9/6/2011	492-F
51	1143	T29S R7W	SLM	11/10/2011	1420-F
52	S305	T3S R2W	USM	11/18/2011	630-J
53	1188	T3S R8W	SLM	11/18/2011	463-D
54	S306	T41S R24E	SLM	11/18/2011	1766-B
55	1144	T22S R19E	SLM	11/28/2011	1182-D
56	984A	T2S R4E	SLM	11/30/2011	442-AX
57	1140	T38S R23E	SLM	12/2/2011	1670-B
58	997-A	T41S R26E	SLM	12/5/2011	1768-B
59	S282	T10S R8E	SLM	12/5/2011	745-D
60	1153	T17S R22E	SLM	12/21/2011	2210-B