

The UCLS Newsletter



Volume 6 Issue 1

When-Where is it?

January 2020



The Utah Council of Land Surveyors, through its annual conference, provides opportunities for members to network, gain knowledge, and explore changes in technology. This annual conference has been held for many years. However, when did this event first start? The first UCLS member that correctly identifies the location and date of the first annual conference will be eligible for a free lunch at their 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 introduce you to the Utah Council of Land Surveyors Annual Conference during the week of February 19-21, in St. George, Utah. Unlike last year, we anticipate the weather to be sunny and warm. You will note several changes to the program, specifically the reintroduction of a Golf Tournament. The proceeds of this tournament will benefit current and future students of land surveying.

This edition has several articles on conflicts: a boundary dispute with a bizarre solution and change in elevation for a mountain top. Additionally, DOPL provided the quantity of Licensed Land Surveyors in the State of Utah.

Financial and physical support is needed for the son of one of our members. Please consider helping the family of Terrell Jensen.

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

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www.ucls.org

INDEX TO PAGES:

Page 2.....	Officers & Committees
Page 3.....	Elevation Controversy
Page 4.....	Toilet Paper Use
Page 5.....	Solving Property Disputes
Page 6-13..	UCLS Annual Conference
Page 14.....	Licensed Surveyors
Page 15-16.	IRWA Real Estate Law
Page 17.....	UCLS Membership
Page 18-19.	NSPS Deprecation of The US Survey Foot

"Between stimulus and response,
there is a space. In that space is
our power to choose our re-
sponse. In our response lies our
growth and our freedom."
-Victor Frankl

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

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A 4,000-FOOTER CONTROVERSY

Mt. Tecumseh hasn't changed, but measuring techniques have. Here's an official verdict.

By: Marshall Hudson

I'm on top of a mountain and smack in the middle of a controversy. Just exactly how tall is Mt. Tecumseh? The Appalachian Mountain Club (AMC) lists 48 New Hampshire mountains are over 4,000 feet in elevation. AMC "peak-baggers," who climb all 48 mountains, earn bragging rights and a nifty little patch for their accomplishment. I did it, and have the nifty little patch to prove it. Mt. Tecumseh is one of the 48 mountains and is listed as having an elevation of 4,003 feet, which places it, just barely, onto the coveted 4,000-footer list.

But what if Mt. Tecumseh wasn't really over 4,000 feet? Would AMC need to revise its list, rewrite the guidebooks, and erase Tecumseh off of the list? Would new peak-baggers only have to bag 47 mountains? Would there be two different guidebooks, two patches, and two different categories of mountain climbers - the old "48-ers" versus the new "47-ers"? Would I have to give my nifty little patch back? Just imagine the controversy a few feet of elevation could mean.

The AMC's listed elevation likely comes from the USGS Quadrangle Map, which indicated the mountain peak as having an elevation of 4,003 feet. But, how did that elevation get onto the Quad sheet? The answer is triangulation and a lot of mathematical calculations. In 1877, Elihu T. Quimby, a professor of mathematics at Dartmouth College, worked for the United States Coast Survey (USCS) on his summer breaks. Quimby had been appointed acting assistant in the US Coast Survey, and along with five other scientists, a few basic survey instruments, some low-tech devices, and a lot of mathematical computations, he created a triangulation network, both horizontal and vertical, all across New Hampshire.

Quimby's calculation notebooks survive. For surveyors, history students and math geeks, his computations are almost magical, as he neatly and methodically measures angles from a known baseline elevation, converts degrees-minutes-seconds to decimal degrees, determines the sine, cosine and secants of the angles, and converts his numbers into logarithms, all without a calculator or computer. Quimby's calculations are carried out many places beyond the decimal to achieve a high level of precision. By repeating the procedure multiple times from many different base stations, Quimby was then able to use those angle-side-angle triangle solution theorems (that tortured many a high school student) to determine the elevation of many of New Hampshire's mountains with a high degree of accuracy.

Quimby calculated that Mt. Tecumseh was 4,003 feet above sea level and for some 142 years no one doubted his calculated peak height. Then came LiDAR. LiDAR, which stands for light detection and ranging. It is a remote sensing method that uses light in the form of a pulsed laser to measure variable distances to the Earth from an airplane. Think radar or sonar from a submarine.

In 2019, a USGS aircraft equipped with LiDAR was used over the White Mountains to improve accuracy of the old USGS Quad Sheets. This LiDAR imagery depicted an estimated peak elevation of 3,995 feet on the summit of Mt. Tecumseh. If this LiDAR elevation is correct, then Mt. Tecumseh would not be over 4,000 feet. To the chagrin of peak-baggers everywhere, this conflicting data now threatens to remove Mt. Tecumseh from the coveted list of New Hampshire's highest peak. Oh, the horror.

LiDAR accuracy is generally pretty good, but when the ground is obscured by heavy tree cover or other obstructions, it can vary. Also, the LiDAR pulsed laser blankets the ground surface in roughly a 2-square-meter (or 5 1/2 foot-square) grid pattern, and there isn't any way of knowing whether the pulse pattern hit the very highest rock peak or merely swept over it hitting all around it. With an undefined accuracy of plus or minus a few feet, maybe, just maybe, Mt. Tecumseh might climb back onto the coveted 4,000-footer list.

So, exactly how tall is Mt. Tecumseh and how best to settle the controversy? Is the 2019 high-tech LiDAR elevation of 3,995 feet more accurate than Quimby's 1877 low-tech triangulation elevation of 4,003 feet? Enter into the controversy a group of volunteer surveyors from the New Hampshire Land Surveyors Association (NHLSA). The group concluded that they could backpack the cumbersome survey equipment to the top of the mountain and, with survey-grade, high-precision GPS units, determine the elevation at the very tippy top of Mt. Tecumseh. GPS-measured elevations involve high-tech triangulating off of orbiting satellites, solved using the same low-tech mathematical formulas that Quimby used, only today we calculate triangle solutions on computers instead of on scratch paper.

Ten surveyors from all over New Hampshire converged at the foot of Mt. Tecumseh one foggy morning to tackle this project. There is no access road to the summit so all equipment had to be backpacked to the top. The group of surveyors broke down into smaller teams to tackle different assignments, including recovering area benchmarks, occupying base stations, differential leveling, setting a permanent control point at the peak, and dispersing equipment to share the workload in hauling it up and hauling it back down the mountain.

While Mt. Tecumseh is not the most difficult 4,000-footer to climb, it isn't a cakewalk either. It is approximately 3 miles from the trail head up a steep, rocky trail with three water crossings and a vertical gain of some 2,200 feet to get to the summit. It takes about three hours and feels longer when you are carrying tripods, auto-level, survey rod, batteries, GPS receivers, antennas, drills, and other survey equipment, in addition to your necessary hiking and safety gear. And whereas hiking gear is designed to be lightweight and portable, surveying equipment is not.

By lunchtime everyone was on the summit and multiple GPS units were cooking away, bouncing signals off of overhead satellites and instant base stations taking a variety of measurements. With multiple units working independently, the opportunity for comparative analysis, corrections, adjustments, checks and double checks meant that our team of NHLSA surveyors had a high degree of confidence in the precision and accuracy of the final determined elevation. Our group measured the NAVD88 elevation of the summit of Mt. Tecumseh, rounded off to the nearest foot, to be ... 3,997 feet. This puts it smack in between the LiDAR elevation and Quimby's triangulated elevation, and below the magical 4,000-foot cutoff elevation. A permanent benchmark stamped "NHLSA - 2019 - Mt. Tecumseh" is now on the top of the mountain denoting the summit elevation of 3,997 feet. This benchmark was set with the cooperation and assistance of the USDA Forest Service. Sorry, 4,000-foot-plus advocates and AMC 48 peak-baggers everywhere, but by our surveyed elevation Mt. Tecumseh is close but not over 4,000 feet and can come off your bucket list. Unless, of course, someone builds a 3-foot-tall rock pile on the summit. Either way, I'm not giving back my nifty little patch.

Note: They are forgetting about the datum shift from 1877 to NAVD88.

1877 was even before NGVD29 which in many places in Utah is a three feet difference from NAVD88.

I think I remember that when they switched NGVD29 to NAVD88 Denver had the same problem because the mile high city was not a mile high anymore. I think they had some state law drafted so it could still be called the mile high city.

- Brad Mortensen

ALL YOU EVER WANTED TO KNOW ABOUT TOILET PAPER

<http://www.toiletpaperhistory.net/toilet-paper-history/history-of-toilets/>

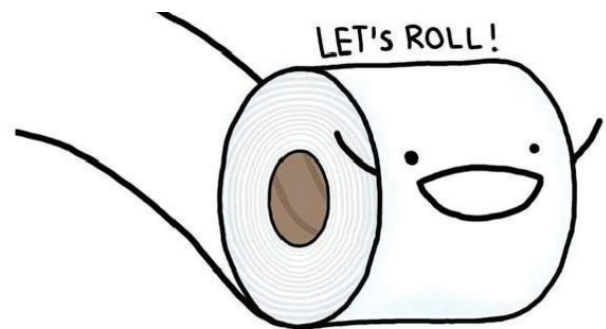
Today it's difficult to imagine life without toilet paper. The evolution of toilet paper is an interesting story and the toilet paper has an amazing past.

If we could travel back in time, what would we find about the first use of toilet paper? Who invented toilet paper? Who was using paper for personal hygiene? Who invented the modern toilet paper roll?

Nobody is too sure when toilet paper was first used. Before the invention of toilet paper, people from different parts of the world had many different ideas for personal hygiene. Some people used stones or sponges (especially rich Romans), but a variety of other things were used also. The Greeks would use clay; Vikings used wool; Eskimos used moss or snow; Myans used corn cobs; Europeans used either hand while the Islamic cultures used only their left hand; and in Coastal Regions, mussel shells were often the tool of choice.

- About four billion people don't use toilet paper. About 70%-75% of the world's population does not use toilet paper.
- People in some parts of the world do not use toilet paper due to a lack of trees.
- Some people don't use toilet paper because they can't afford it.
- A lot of people would rather not spend money on fancy paper to wipe their behinds.
- Water is the universal solvent, not paper.
- Toilet paper has secondary uses such as nose care, removing makeup, covering toilet seats, packaging material, cleaning mirrors, cleaning glasses, etc.
- Two-ply toilet paper consists of two layers of 10 thickness paper, one ply is made of a 13 thickness paper, and so, two-ply is not necessarily twice the thickness.
- When comparing one-ply and two-ply on average one-ply toilet papers lasts twice as long. One-ply will also tend to break down faster in a septic system.
- In an average household, the average roll of toilet paper lasts approximately five days.
- Consumers use approximately 8-9 sheets of paper per toilet use.
- We use an average of 57 sheets of toilet paper a day!
- The average roll weights 227 grams (measurements: 4.5 inches by 4.5 inches per sheet)
- Seven percent of Americans steal rolls of toilet paper in hotels or motels.
- If you hang your toilet paper so you can pull it from the bottom, you're deemed to be more intelligent than some one who hangs their toilet paper and pulls it from the top.
- It takes about 384 trees to make the toilet paper that one man uses within his lifetime.
- The average person uses 100 rolls of toilet paper per year (over 20,000 sheets).
- The daily production of toilet paper is about 83,048,116 rolls per day.
- Toilet paper is often used for making dresses.
- An average tree weights 1,000 pounds which would yield 450 pounds of bleached chemical pulp, assuming a 90% converting yield, approximately 810 rolls of toilet paper would be produced from a single tree. (thanks to Don Guay)
- In many countries you do not flush the paper.
- Today, there is an in-office machine, which turns used copier paper into toilet rolls, right there in the office.
- Toilet paper was first patented in Albancy (Small country in Europe)

A recent article notes: the toilet paper is bleached heavily to make them very soft. This is a fetish of this nation. The process that bleaches the paper using a strong set of chemicals, and they can cause cancerous growth in the rectum area, which would be the most unfortunate outcome of using the large quantity of toilet paper.



Officials Split Building In Two To Solve Property Dispute

(TRIBUNE MEDIA) - RUGGLES TOWNSHIP, Ohio (WJW) - An Ohio man says local officials cut a building in half to end a property dispute with him.

It happened in Ruggles Township following a complaint by Brett Galloway, who contends township officials constructed a building that was partly on his property.

“It is pretty much the most ridiculous thing ever,” Galloway told WJW.

He said he has tried negotiating with township leaders since January, but last week, when they didn’t reach an agreement, officials put up a fence and cut down part of the building.

About a third of the building still remains on Galloway’s property. Officials plan to tear down their portion.

The building was used to store equipment.

Galloway said he has another unrelated property issue with the township that is already in court, and he had hoped to get this matter resolved.

WJW reached out to township officials to discuss the matter, but an employee referred the reporter to their legal counsel, the Ashland County prosecutor’s office.

The county prosecutor said trustees tried to reach an agreement with Galloway, but when they couldn’t, they decided to tear down the building. He said they couldn’t knock down the portion on Galloway’s property because he wouldn’t let them on his land.

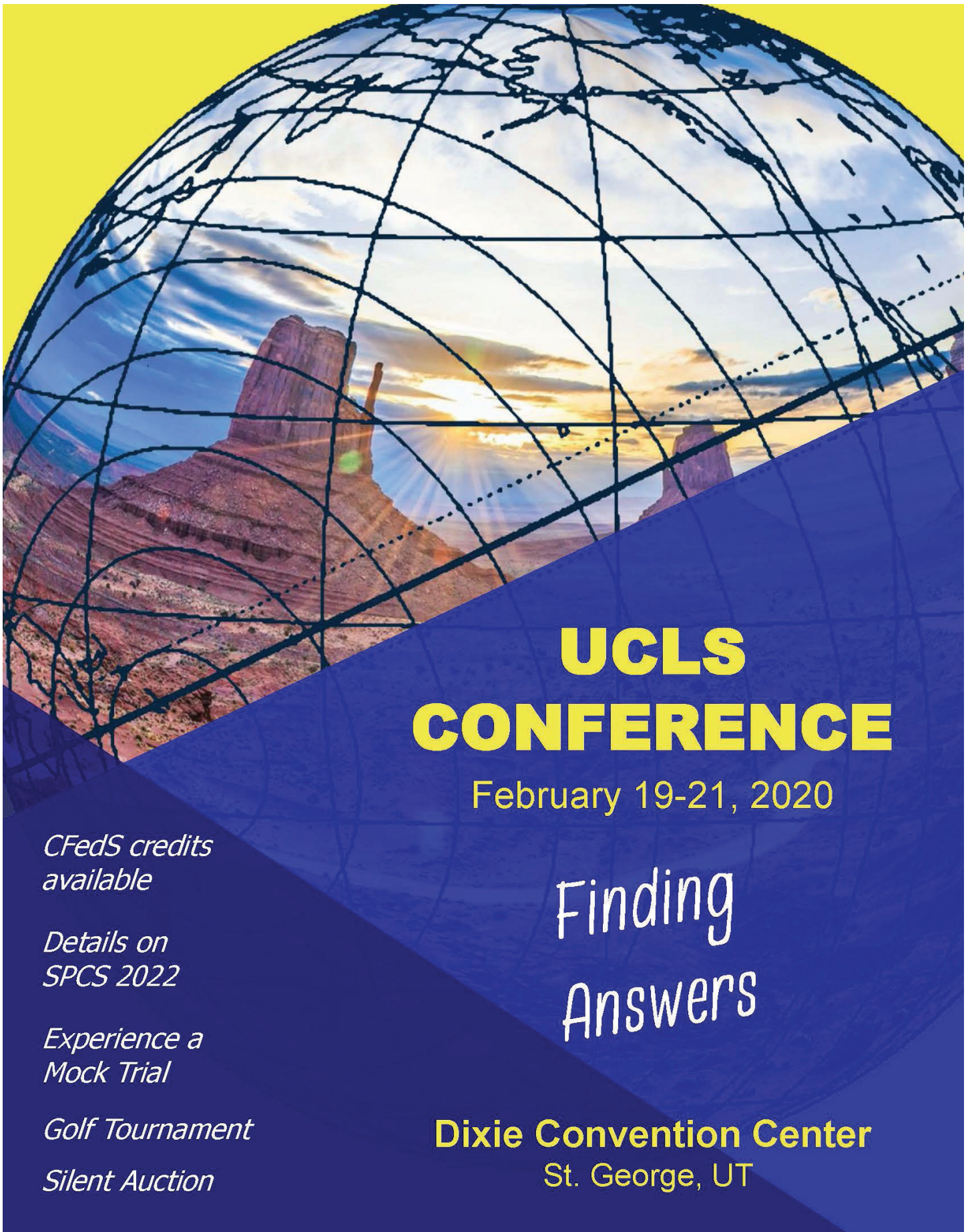
So for now, the building remains sliced in two with part of it separated by a fence and a no trespassing sign.

Those living near the area said it seems like a waste of taxpayers dollars and “silly”.

“I don’t know who would think this is a good idea,” Galloway said. “I can’t use my property and they lost a building.”

See article at <http://www.foxnews.com/us/ohio-town-splits-building-in-two-over-property-dispute>





UCLS CONFERENCE

February 19-21, 2020

*CFedS credits
available*

*Details on
SPCS 2022*

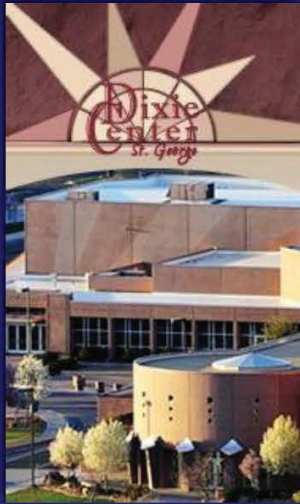
*Experience a
Mock Trial*

Golf Tournament

Silent Auction

*Finding
Answers*

Dixie Convention Center
St. George, UT



Venue

DIXIE CENTER

[Dixie Center Website](#)

[Dixie Center Facebook Page](#)



Accommodations

ST GEORGE, UTAH

- [Hilton Garden Inn](#) - enter group code "UCLS"
- [Fairfield Inn](#)
- [Hyatt Place](#)
- [Holiday Inn](#)
- [Greater Zion Lodging](#)

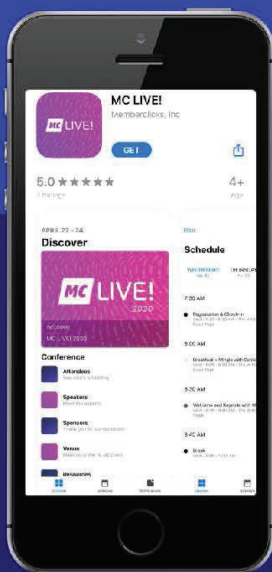


Travel & Driving

CLOSE TO NATIONAL PARKS

The Dixie Center is located in St. George Utah, the heart of Utah's scenic outdoors. St. George is located in the southwestern most corner of Utah and is easily accessible on I-15 from either Las Vegas, NV to the south or Salt Lake City, UT to the north.

EVENT SCHEDULE



*Download
Member Clicks
for event details*

2020 February

19 Wed

	Conference registration	12:00 PM
	Opening Ceremonies	1:00 PM
A	Field to Finish Tim Kerr & Peyton Hatch	1:30 PM
B	Art & Accuracy of Writing Legal Descriptions Steve Keisel	
	BREAK	3:00 PM
A	Drone to Design Shawn Herring	3:30 PM
B	USPCS 2022 What Is It Good For? Brad Mortensen	

20 Thu

	Late registration + hot breakfast	7:00 AM
A	Mock Trial Jason Foose & Jason Higgins	8:00 AM – 5:00 PM
B	CFedS Lost Obliterated Existing Matt Kurchinski & Steve Parrish	CFedS Interior Board of Land Appeals (IBLA) Decisions Steve Parrish
	BREAK(S)	10:00 AM, 12:00 PM, & 3:00 PM

EVENT SCHEDULE

2020 February

21 Fri

	Late registration + hot breakfast	7:00 AM
A	NSRS Modernization & TURN GPS Update Bill Stone & Sean Fernandez	8:00 AM
B	UDOT Advanced QC & QA James Olschewski	
C	Surveying Panel Discussion Pincushions, Street Monuments, And whatever else you want! Federal, State, and Local Government Surveyors	
	BREAK	10:00 AM
A	Solving Engineering & Surveying Challenges-Practical UAS Applications Justin Jenkins	10:30 AM
B	PLS Stamped Legal Descriptions & Plans James Olschewski	
C	State Laws & UAC Recommendations for Monument Preservation Devron Andersen & Brock Slaugh	Monument Replacement & Restoration Committee Gary Ratcliffe & Jerry Allred
	BREAK	12:00 PM
A	Creating Surveys w/Drone Data Advanced Data Processing Workflows Logan Campbell	1:30 PM
B	Surveying the Ephraim Tunnel Leon Day & Cory Squire	
C	USPCS 2022 What Is It Good For? Brad Mortensen	
	BREAK	3:00 PM
	Auction + Raffle + Close	3:30 PM



Special Program CFedS

Thursday 8 AM – 5 PM

Counts towards CE credits

Lost-Obliterated-Existent

by Matt Kurchinski & Steve Parrish

A brief discussion on the definitions of lost, obliterated, & existent. *Which elements of the evidence and record can be relied upon to reach a decision?* This workshop includes a report on the Wallace Creek area.



Interior Board of Land Appeals (IBLA) Decisions

by Steve Parrish

Several pertinent IBLA decisions will be presented with “behind the scene” information, critical in the evaluation of GLO monuments. The audience will have an opportunity to comment on each case.



Special Program Mock Trial

Thursday 8 AM – 5 PM

By Jason Foose & Jason Higgins

There's a boundary dispute cooking in Blue Rock County, Utah. The neighbors are feuding over one (1) foot of dirt. Two surveyors couldn't put humpty dumpty back together, so the check books come out and both parties lawyer up. The facts reveal ambiguity in the original grant and two competing retracement surveys.

Judge Esplin will preside over this true-to-life setting and instruct the jury to render an impartial verdict under Utah law. Salt Lake heavy hitter and the UCLS' own **Mark Gregersen** (Atty & Land Surveyor) will argue for the plaintiff. Hilldale land use expert **Jason Dixon** (Atty) will rely on his expertise in rural land practice to defend the Jones claim.

This program strives to deliver the most realistic courtroom experience possible, minus the subpoena! *This case is not scripted and the evidence will lead the jury to a true conclusion.*



SUNBROOK Golf Course

February 19th, 1:00 PM
Shotgun Start

\$100 entry, per player

Box Lunch Provided

Limited to 40 players so

SIGN UP BY FEB. 9th

**HOLE IN ONE
\$15K PRIZE!**



*Help raise money for
annual scholarships!*

WMCEF Golf Tournament

We are accepting **donations** for prizes.

To Register Visit:
<http://www.ucls.org/>

For Hole Sponsoring Contact:
Brandon Anderson
(brandona@racivil.com)





TV

\$850 value

Enter to WIN by updating your Member Profile on UCLS.org.

**You do not need to attend the conference to participate.*

Giveaways!

SHOTGUN

\$850 value

Purchase raffle tickets at the conference and be present to WIN.

**Drawing will occur at the end of the conference.*



REGISTRATION

2020 UCLS Conference

ONLINE

UCLS

Visit the UCLS website to register for the 2020 Annual UCLS Conference
www.ucls.org

[Register Here](#)

COST

\$450

UCLS Member Full Conference

\$650

Non-member Full Conference

For prices by day please visit the registration page

[Cost Details](#)

\$35 cancellation fee.

No refunds given after 2/12/2020 – no exceptions!

QUESTIONS

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GO MOBILE

Member Clicks

Visit the App or Play Store on your mobile device to download

Coming Soon!

Partial funding for this educational opportunity has been provided by the Division of Occupational & Professional Licensing and the Education and Enforcement Fund.

Vendor Details

Early bird pricing until 1/30/2020



[Vendor Application](#)



[Vendor Booth Map](#)



Wed

Move-In
8AM-12PM

Hours
12-5PM



Thur

Hours
8AM-5PM



Fri


Hours
8AM-3:30PM

Move-Out
3:30-5PM

Professional Engineers and Professional Land Surveyors Licensing Board
2019-09-18 Minutes

UTAH PE / SE / PLS LICENSING NUMBERS 2013-2019													
		RENEWAL											
2013	January	February	March	April	May	June	July	August	September	October	November	December	AVG
PE		6,991	7,042	7,081	6,280	6,428	6,522	6,601	6,658	6,713	6,774	6,819	6,719
SE		2,228	2,231	2,234	1,999	2,025	2,044	2,059	2,068	2,075	2,084	2,088	2,103
PLS		786	787	786	704	715	721	728	732	735	739	744	743
TOTAL		10,005	10,060	10,101	8,983	9,168	9,287	9,388	9,458	9,523	9,597	9,651	9,566
		RENEWAL											
2014	January	February	March	April	May	June	July	August	September	October	November	December	AVG
PE	6,876	6,959	7,006	7,058	7,104	7,151	7,217	7,263	7,302	7,353	7,400	7,430	7,177
SE	2,097	2,103	2,112	2,118	2,122	2,128	2,134	2,140	2,140	2,147	2,150	2,152	2,129
PLS	744	749	750	751	752	755	755	756	757	761	762	764	755
TOTAL	9,717	9,811	9,868	9,927	9,978	10,034	10,106	10,159	10,199	10,261	10,312	10,346	10,060
		RENEWAL											
2015	January	February	March	April	May	June	July	August	September	October	November	December	AVG
PE	7,473	7,519	7,550	7,592	6,901	6,986	7,061	7,125	7,279	7,300	7,347	7,396	7,294
SE	2,156	2,162	2,165	2,172	1,993	2,011	2,028	2,039	2,061	2,063	2,068	2,072	2,083
PLS	766	766	769	767	705	714	716	718	721	721	724	726	734
TOTAL	10,395	10,447	10,484	10,531	9,599	9,711	9,805	9,882	10,061	10,084	10,139	10,194	10,111
		RENEWAL											
2016	January	February	March	April	May	June	July	August	September	October	November	December	AVG
PE	7,479	7,533	7,577	7,628	7,705	7,766	7,790	7,842	7,883	7,918	7,952	8,039	7,759
SE	2,084	2,088	2,092	2,101	2,112	2,123	2,127	2,133	2,137	2,142	2,142	2,147	2,119
PLS	730	732	735	736	738	741	745	745	745	746	748	751	741
TOTAL	10,293	10,353	10,404	10,465	10,555	10,630	10,662	10,720	10,765	10,806	10,842	10,937	10,619
		RENEWAL											
2017	January	February	March	April	May	June	July	August	September	October	November	December	AVG
PE	8,104	8,127	7,330	7,470	7,470	7,665	7,751	7,873	7,953	7,997	8,059	8,113	7,826
SE	2,151	2,161	1,999	2,031	2,031	2,052	2,066	2,073	2,081	2,085	2,092	2,096	2,077
PLS	752	752	679	691	691	700	703	706	708	711	714	717	710
TOTAL	11,007	11,040	10,008	10,192	10,192	10,417	10,520	10,652	10,742	10,793	10,865	10,926	10,613
		RENEWAL											
2018	January	February	March	April	May	June	July	August	September	October	November	December	AVG
PE	8,162	8,213	8,257	8,320	8,360	8,375	8,380	8,395	8,455	8,523	8,673	8,812	8,410
SE	2,102	2,109	2,115	2,120	2,120	2,123	2,127	2,131	2,133	2,134	2,136	2,139	2,124
PLS	718	723	725	727	729	729	730	732	733	735	736	737	730
TOTAL	10,982	11,045	11,097	11,167	11,209	11,227	11,237	11,258	11,321	11,392	11,545	11,688	11,264
		RENEWAL											
2019	January	February	March	April	May	June	July	August	September	October	November	December	AVG
PE	8,876	8,941	8,959	8,276	8,324	8,440	8,556	8,672	8,673				8,635
SE	2,166	2,194	2,195	2,043	2,050	2,062	2,074	2,086	2,088				2,106
PLS	739	742	743	681	687	690	693	695	698				708
TOTAL	11,781	11,877	11,897	11,000	11,061	11,192	11,323	11,453	11,459	0	0	0	8,587

 below average for the year

 greatest number of licensees per classification

WANTED



In 2017, the UCLS Board created the Walter M. Cunningham Education Foundation (WMCEF) for scholarships in honor of our great friend and educator Walter M Cunningham. Walt was the Surveying and Geomatics Program Coordinator at Salt Lake Community College and recipient of the 2006 Utah Surveyor of the Year, 2013 Utah Engineers Council Engineering Educator of the year and the 2015 SLCC Foundation's Teaching Excellence Award. The WMCEF scholarship helps students cover the cost of their formal education by assisting in tuition, fees, books, or housing, etc. for those individuals interested in pursuing a career in Surveying and Mapping.

The WMCEF currently funds several partial scholarships each year with your generous contributions. The WMCEF committee is hoping to carry Walt's spirit of education forward even more with your help. This year we want to go even bigger than 2019 (\$5,500) by raising **\$15,000** in funds for upcoming scholarships with the goal of offering both full-year and partial scholarships. Here's how we need your help. We are hoping that each of you will contribute in at least one (1) of the following three (3) ways:

1) WMCEF Silent Auction and Raffle

Where: UCLS Conference –St George, Utah @ Dixie Convention Center

When: February 19-21, 2020

Details: Have auction item(s) you'd like to donate? Please contact Dan Perry at dan.geosymmetrics@gmail.com

2) WMCEF Golf Tournament

Where: St George, Utah @ Sunbrook Golf Course

When: Wednesday February 19, 2020

Details: 4-man scramble event with prizes and a chance at a \$15,000 hole in one.

For hole sponsoring contact Brandon Anderson brandona@racivil.com

Registration for the golf tournament will be under the Conference registration at <http://ucls.org/>

3) Personal or Business Donations

Donations can easily be made online at <https://www.wmcef.org/donate>

The Walter M. Cunningham Foundation is a [501\(c\)\(3\) non-profit corporation](#).

All donations are tax deductible. Contact Steve Collier at steve.surveys.utah@gmail.com for more info

We are hopeful we can reach this goal through your kind donations. Many of us are beneficiaries of Walt's love and desire for education. Contributing to his foundation is a great way to give back. We thank you for your consideration and the continued support of the Walter M. Cunningham Education Foundation.

Regards,

WMCEF Committee

REWARD: \$15,000





19210 S. Vermont Avenue, Building A, Suite 100
 Gardena, CA 90248
 Phone: (310) 538-0233
 www.irwaonline.org

Course 102: Elevating Your Ethical Awareness

January 31, 2020

Salt Lake City, UT



Course 102: Elevating Your Ethical Awareness

Course Description:

This course is intended to help resolve ethics and compliance issues by providing the information, tools and resources necessary to make good decisions. Participants will leave this course with an overview of IRWA's Code of Conduct, Rules and Standards. These are what guide us and provide an understanding of how to apply this knowledge in serving our clients and members in the utmost ethical manner while always striving to fulfill our purpose of "improving the quality of people's lives through infrastructure development."

Course Level:

Core

Topics:

- To elevate ethical awareness in our industry to ensure we serve our clients and the profession to the highest standard
- To provide a clear understanding and clarity of our Code of Ethics, Ethical Rules and Standards
- To be educated on the risks associated with non-ethical behavior
- To cultivate an active presence of ethical awareness in daily work and life
- To nurture an understanding of Ethics as a concept and social construct

Course Tuition Includes:

- Learning Guide
- Supplement – "The 10 Rules of Professional Conduct & Standards of Practice for the Right of Way/Infrastructure Professional"
- IRWA's 10 Ethical Rules Card
- 8.5 X 11 ICOS Poster

Who Should Take This Course:

- New and experienced right of way/infrastructure professionals worldwide
- Professionals desiring to raise their standard of ethical and fair business practice

102 Elevating Your Ethical Awareness January 31, 2019 Salt Lake City, UT

Register online at www.irwaonline.org/ Fax this entire page to IRWA HQ: (310) 538-1471

If payment includes the fees for registrants other than yourself, check here:
(Please submit names of other registrants on a separate paper along with this form)
Will you also be attending? Yes No

Last Name First Name

Title

Company Name

Address

City, State, Zip/Postal Code

Phone Yes No Member Member ID Number

Email Address

Member Tuition	Non-Member Tuition	Total Tuition Amount	Total Member Registrants: _____
\$265.00	\$330.00	_____	Total Non-Member Registrants: _____

PRINT NAME AS IT APPEARS ON CARD: _____ 3-DIGIT CVV: _____

AMEX MC VISA Card #: _____ EXP: _____

SIGNATURE: _____ Date: _____ Amount to be Charged: _____

Course 102: Elevating Your Ethical Awareness January 31, 2020 Salt Lake City, UT

Sponsor: IRWA Chapter 38
Date: January 31, 2020
Time: 8 AM to 5 PM Daily
City: Salt Lake City, UT

Course Coordinator:
Pam Vogel
P.O. Box 16985
Salt Lake City, UT 84116
Phone: (385) 441-4667
Email: PamUtahRealtor@gmail.com

Class Location:
UDOT
4501 S. 2700 West
Redwood B Conference Room
Salt Lake City, UT 84129
Phone: (801) 965-4238
Participant Capacity: 45

Accommodations:
Crystal Inn
2254 City Center Court
West Valley City, UT 84119
Phone: (801) 736-2000
Contact hotel directly for reservations
Notify desk for IRWA Reserved Rate (Subject to Availability)
Free shuttle to training facility provided, please let front desk know on check-in

Four Ways to Register:
Online: www.irwaonline.org
Fax: (310) 538-1471
Phone: (310) 538-0233, x138
Contact Course Coordinator

Course Instructor:



James A. Olschewski is a Professional Land Surveyor who has spent the last 30 years designing and acquiring Right of Way for UDOT as both a consultant and now as a UDOT employee. James started his career in Right of Way researching and designing the widening of projects such as Sardine Canyon, Provo Canyon, I-15 in Salt Lake County and most recently the Mountain View Corridor. James has toured the country teaching transportation design using Microstation and InRoads for several state DOT's including, New Mexico and here for UDOT as well as many top fortune 500 Engineering Firms. James has a degree in Architecture, and a degree in Surveying and is NICET Certified in Roadway Design and is the current Statewide Right of Way Design Lead for UDOT. James is a member of both the IRWA and the UCLS where he has served on and as chairman of several committees and is a past SL Chapter President. James is married to a wonderful wife and they have two perfect children, he loves camping, the outdoors, is an avid fisherman who loves the Madison River and is a diehard Ute fan.

Cancellation Policy: All classes scheduled by IRWA are subject to cancellation. All class registrants must contact the Course Coordinator prior to making travel arrangements, keeping in mind that the class may be cancelled at any time (for reasons including, but not limited to, insufficient registration, instructor emergencies or other issues beyond the control of the chapter and/or IRWA). Fully liquidated damages for any losses incurred by a class registrant are limited solely to a refund of the registrant's prepaid class tuition. IRWA and its chapters assume no other registrant liability resulting from class cancellation.

Tuition Refund Policy: Written notification of intent to cancel registration must be received via email by both the Course Coordinator and IRWA Headquarters Education Staff (education@irwaonline.org) prior to the class start date in order to be eligible for a tuition refund. A full tuition refund will be issued if notice is received 15 days or more prior to the class start date; a 75% refund will be issued if notice is received less than 15 days prior to the class start date, and no refund will be issued for notice received on or after the class start date.



December Who Is it

Todd Christensen was the first UCLS member to correctly identify Von Hill in our December “Who is it” competition. Todd’s guess was received just minutes before Robert Knox.

Von was awarded the 2018-2019 Utah Council of Land Surveyor’s Lifetime Achievement award. He has been an influential part of Utah Surveying for many years. Von has served on numerous committees, provided leadership for multiple Boards, and shared his knowledge with many students and peers.

Why Is That Hairy Thing Above The Lip Called A Mustache?

The English word “mustache” comes from the French word of the same spelling, “mustache”, and popped up in English around the 16th century. The French word in turn comes from the Italian word “mostaccio”, from the Medieval Latin “mustacium” and in turn the Medieval Greek mousa-takion”. We now finally get to the earliest known origin which was from the Hellenistic Greek “mustax”, meaning “upper lip”, which may or may not have come the Hellenistic Greek “mullon”, meaning “lip”. It is theorized that this in turn came from the Proto-Indo-European root “mendh-”, meaning “to chew” (which is also where we get the word “mandible”).

Michael Whitling, PSM



“Between Stadia Hairs”...

MONDAY MORNING BLUES

I came to work late this morning.
The Boss gave me Hell.

I found out Friday’s closure was 1 in. 5 ft.
I exclaimed - Oh swell.

Today’s survey was a two-day job
Supposed to be done by noon,

The tape was cut by the Rodman, That
really lowered the boom.

The transit man was right on cue, Every
angle turned, he also blew.

To my surprise no book had I.
Oh well, tomorrow I’ll really try.

By: Ralph Austin



NSPS

NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS **DEPRECATION OF THE US SURVEY FOOT**

Recently, the National Geodetic Survey (NGS), in collaborations with National Institute of Standards and Technology (NIST), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), have filed an official notice with Federal Register to deprecate the U.S. survey foot and establish the official adoption of the "foot" being equal to 0.3048 meters (exactly). Below are specific facts regarding the efforts by NGS and supported by NSPS:

- The Federal Register Notice itself in its entirety at:
<https://www.federalregister.gov/documents/2019/10/17/2019-22414/deprecation-of-the-united-states-us-survey-foot>
The comment period for this notice ends Monday, December 2, 2019.
- The National Institute of Standards and Technology (NIST) website:
<https://www.nist.gov/pml/us-surveyfoot>
- A recorded NGS webinar regarding the deprecation and adoption at:
https://geodesy.noaa.gov/web/science_edu/webinar_series/fate-of-us-survey-foot.shtml
- Several NGS presentations, available at:
[https://geodesy.noaa.gov/web/science_edu/presentations_library/.](https://geodesy.noaa.gov/web/science_edu/presentations_library/)
- More information will be added to the NIST website, including additional FAQs and examples of problems caused by mixing up versions of the foot. NGS is also giving another webinar on this topic on December 12
https://geodesy.noaa.gov/web/science_edu/webinar_series/ending-us-survey-foot.shtml



The following series of six facts are regarding the justification unifying the definition of the foot:

1. Per the U.S. Constitution, only Congress has the power to "fix the standard of weights and measures" (Article I, Section 8, Clause 5). That power is "uniform throughout the United States"; the authority does not reside with the states. The reason is that the framers recognized that uniform standards were needed to support science, industry, and commerce, both within the U.S. and with other countries (that is likely why the power to coin money is in the same sentence of the Constitution).
2. Congress delegated the authority to fix the standards of weights and measures, first to the Department of the Treasury, and since 1903 to the National Bureau of Standards (NBS, now NIST) in the Department of Commerce.
3. The foot was fixed to a specific relationship to the meter (1 foot = 1200/3937 meter) by the Mendenhall Order in 1893. It is important to note that it was an order, not a proposal, request, or suggestion, and that it applied to the entire U.S., under the authority of the Constitution.
4. The foot was officially redefined by NBS for the entire U.S. in 1959, as 1 foot = 0.3048 meter (exact). That is when the previous definition of the foot was named the "U.S. survey foot" (sft), and the new definition was named the "international foot" (ift), to distinguish the two.
5. The sft temporarily perpetuated the previous foot definition for one and only one reason: to minimize disruption of geodetic surveys that were based on the sft, mainly because of the impact on the State Plane Coordinate System (SPCS), and on highly accurate (geodetic) measurement of long distances. It was not intended for boundary or any other types of surveying, or any other application whatsoever. The sft was not preserved "to support the reliable interchange of information and value relating to geographic features," as claimed in your document.
6. An additional important intent was that the sft be retired once the "basic geodetic survey networks" of the U.S. were readjusted. That was finalized in 1986 with the change from NAD 27 to NAD 83. This is not mere opinion. It is clearly stated in the 1959 FRN that the new definition of the foot "shall apply" after such an adjustment, which anyone can read for themselves (https://geodesy.noaa.gov/PUBS_LIB/FedRegister/FRdoc59-5442.pdf). "Shall" in this context is mandatory.

In addition to the U.S. Constitution, there are various federal acts, treaties, and statutes regarding standard weights and measures, as given in the FRN.

For more information, please visit the NGS website along with the other links provided herein.