

# The UCLS Newsletter

Volume 4 Issue 19



March 2017

## Where is it?

Be the first to provide the correct Title, Chapter, and Part reference to this Section of Utah Code and become eligible for a free lunch at your next UCLS Chapter meeting.

Answers may be emailed to Susan at [srmerrill@ucls.org](mailto:srmerrill@ucls.org). The earliest date and time of response will determine the winner.

**In this issue:** We provide you with sound advice on resolving bound-

### UTAH CODE

Every person who willfully injures, defaces, or removes any signal, monument, building, or appurtenance thereto, placed erected, or used by persons engaged in the United States or state survey is guilty of a class B misdemeanor.

*Enacted by Chapter 196, 1973 General Session*

ary disputes and thoughts

on who actually owns a record survey map. DOPL's latest investigation report is shared, the History of Daylight Savings time is examined, and recognize local recipients of the NSPS Certified Survey Technicians program. As members of the National Society of Professional Surveyors, we are given opportunities to celebrate National Surveyors Week, participate in their

insurance programs, and become involved by reviewing the Directors Report.

Additionally, we hope to educate and/or entertain you with miscellaneous items of information, another dastardly deed, and north arrow challenge.

Finally, check out the latest news on the 2018 annual conference.

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.

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**"The only weapon a Land Surveyor possesses is the truth and the only shield he carries is his work."**

**-Deward Karl Bowles**

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## Six common sense rules for resolving boundary disputes

-Lee Spurgeon, PLS

I know that most of you would just prefer that all boundary lines are pretty much settled affairs and that you could go your whole career without ever having to resolve a real Donnybrook boundary dispute involving lawyers, the rats, and the brandishing of weapons. Some of us - the mental defectives, if you will - actually enjoy resolving these issues and bringing previously unseen peace into a neighborhood. It can also be a decent revenue source when the economy is in a downturn. I was considering taking out a television ad that said something like this:

"You know your neighbor, the one who just put up a fence? Yeah, the big jerk with the loud dog. How do you know he put it in the right place? How do you know he isn't trying to steal your land? Contact a local surveyor before he permanently sings it."

If you are going to deal with boundary disputes, you may as well learn these few simple rules:

### **RULE 1: Barbecues are cheaper than lawyers.**

Even a simple adverse possession lawsuit can run anywhere from \$20,000-\$25,000. Even if your client spends that much, there is absolutely no guarantee your client will prevail. Most land cases require a very high standard of proof. In adverse possession cases, your client will need to prove all elements of the law by clear and convincing evidence. The higher the burden of proof, then it generally follows the greater expense of the lawsuit.

A good barbecue with marinated tri-tip steaks can be thrown for around \$20 per person, which includes the requisite amount of beer required in order to believe your neighbor isn't a repulsive slug. I know it sounds like a no-brainer in financial terms, but for some reason, land attorneys still manage to make a living. Perhaps the Weber Grill Company needs to get its message out there.

### **RULE 2: The first person to accuse their neighbor of being a jerk is generally the jerk.**

This rule is based on the psychological principle of reciprocity of attribution. We tend to attribute to other people those attributes, which we see as a flaw in ourselves. Thieves will accuse other people of being thieves. Liars believe that someone else is a liar. And

jerks will think other people are jerks. This principle was summed up perfectly by Raylan Givens on the show "Justified":

"If at the end of the day, you look in the mirror and you have seen one jerk, then you have seen a jerk. On the other hand, while you look into that mirror and think you have seen a hundred jerks, then you are probably looking at the jerk." (Author's note; Raylan didn't use the word 'jerk', but having actually read the editor's e-mail, I thought I would clean things up on my own.)

Even though you have a professional and fiduciary obligation to your client, as surveyors we also have an obligation to the truth, and often times we end up working for seriously bad actors. Knowing who the problem is can also be a key unraveling the conflict.

### **RULE 3: Surveyors do not wear Kevlar.**

Even though you feel you have an absolute right to go onto people's property to survey boundary lines as long as you follow the dictates of our state's Right-of-Entry law, high velocity, copper-jacketed lead slugs tend to trump those rights. I figure that it requires a stack of PLSO provided door hangers three and a half inches thick to stop a typical handgun bullet. Considering how surveyors are always working in the rain (at least in Oregon), door hangers have rather dubious value as a personal protection garment. Talk to the neighbors first and assure them that you are there trying to discover the truth and that your survey may work out in their favor and if that doesn't work, call the sheriff, but no boundary line is worth anyone's life.

### **RULE 4: Two things you never want to see are sausages being made and your government at work.**

There is nothing worse than working out some sort of boundary resolution over which two warring factions can abide to, only to then have a planning department reject the solution because of Type 2 density overlay in a Type 3 Historical District.

Arriving at any solution in some cases, involves a sea change in the way that neighbors view one another. Many neighbors need to work past more than a little paranoia in order to come to an accord, and having a planning glitch scuttle the agreement can degenerate into a lifetime of open hostility between neighbors. Before you ever propose any solutions, make sure you have already talked to planning and have ensured that a hostile boundary problem will cruise through planning without any problems.



Six common sense rules for resolving boundary disputes continued....

**RULE 5: Some people just want to fight.**

Yes, this is correct.

I was asked to bid on a survey to determine the Really Truly Absolutely Definitive Boundary between two geezers who have been fighting over the same fence line for over 20 years.

There were perhaps a half dozen iron rods set within one or two tenths of each other. These two old men may have spent close to \$100,000 over one or two tenths of land that is usually buried in blackberries. Their dispute may have been the only fun and exercise they ever got. If they want to fight, then I don't see why it falls upon sensible surveyors to be psychic vampires and ruin their best recreational activity.

**RULE 6: It is rarely about where the boundary is located.**

Most boundary disputes I have worked on have been about dogs, junk, noise, unnecessary police complaints or some other offense, which may not be readily apparent.

The light over the boundary location is merely the system of a bigger problem, which may have been festering for years. Although fixing the boundary line in an authoritative manner is a worthwhile goal in and of itself, a surveyor may end up merely treating a symptom instead of the underlying cause.

I came across a boundary dispute in which I was asked to determine a property line between two neighbors, which was a direct result of the neighbor's dogs. One neighbor had two large caliber dogs, which barked incessantly. Our client responded by using his sand wedge to knock his own dog's effluvium over the fence on the boundary line while on more than one occasion sending on long and into his neighbor's swimming pool.

Now if you were a surveyor who was merely treating symptoms, you would dutifully determine the boundary line and make an authoritative determination of the location of the fence. A better surveyor would suggest that bending one's knees a bit more, using a seven iron, and always using a full follow-through would get more loft and reduce the chances of an errant lie in the water hazard. The superior surveyor would suggest to his client that if he stopped launching effluvium over the fence, the neighbor might consider doing

something about his barking dogs. The best surveyor would suggest to the aggrieved recipient of the effluvium that can of white spray paint and some freshies form his own dogs put into his neighbor's backyard at night may create a very messy golfing experience and end the problem in a real hurry.

**RULE 7: Happy clients are paying clients.**

I think this speaks for itself. If you think your client doesn't have much of a case, consider getting a larger deposit.

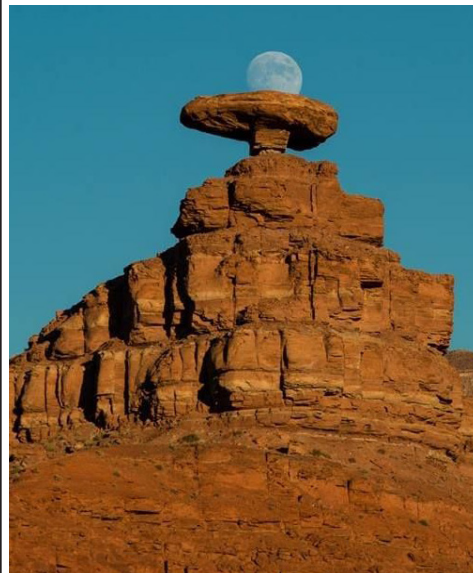
I hope this will now make you all experts in solving boundary disputes, and yes, it is all that easy.

*Reprinted with permission from the Oregon Surveyor*

**UCLS Conference Survey  
"Who's your favorite Sports Team"**

- #1 Utah 41%
- #2 BYU 29%
- #3 Utah St 14%
- #4 SUU 1%

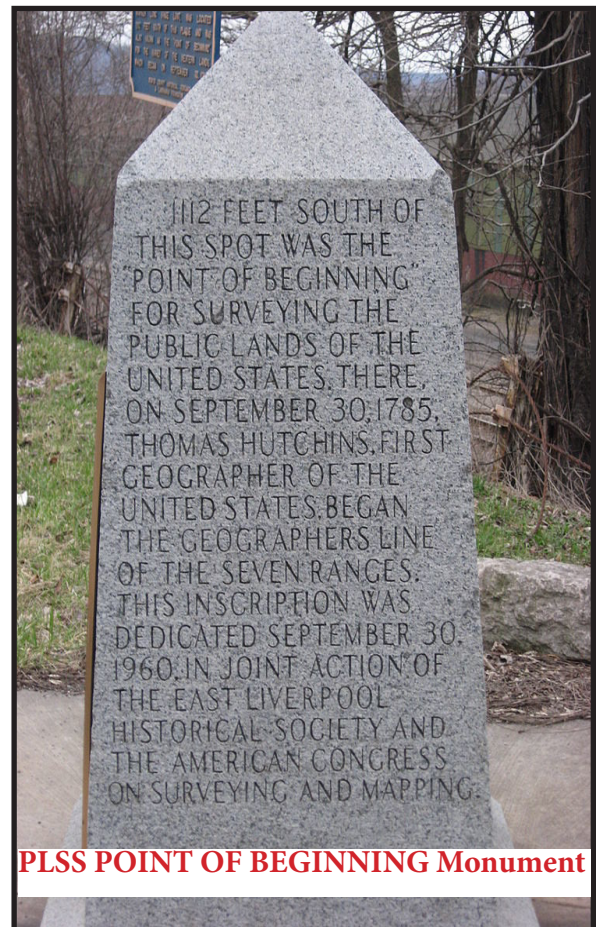
**January - Where is it Challenge?**



Clay Tolbert was the first UCLS member to respond and correctly identify this unique and unusual land formation as Mexican Hat. Corbin Van Nest and David Hawkes were the second and third correct responders.

**Mexican Hat** is located on the San Juan River on the northern edge of the Navajo Nations borders in south-central San Juan County, Utah.

The name "*Mexican Hat*" comes from a curiously sombrero-shaped, 60-foot wide by 12-foot thick, rock outcropping on the northeast edge of town. The "Hat" has two rock climbing routes ascending it. "*Mexican Hat*" is frequently noted on lists of unusual place.



## Dastardly Deed

### TERMS OF LIFE ESTATE

Grantor shall retain the right to use, occupy and possess the real estate described herein for the remainder of the Grantors life. Grantor shall have full power to use and dispose of the entire distributable income from said real property and shall be responsible for payment of real estate taxes thereon. The life tenant shall have the right to execute leases, geophysical exploration agreements, and perpetual easements and grants of right of way shall be binding upon the remainder estate. The life tenant shall receive all royalties, rents, leases, geophysical exploration, easement, and right of way payments paid on account of the land during his lifetime. Grantor may commit waste on the premises if he desires to do so.

Tax Parcel Number: 32-02-403-002-0000



## NSPS Is:

- 1 **The principal national voice of the surveying profession**
- 2 Continually seeking to respond to the challenges presented by new technologies, as well as government and industry activities.
- 3 **A forum for its members to use their expertise and knowledge to address those interests that are common to all surveyors.**
- 4 Responsible for the evaluation of surveying-related college and university educational programs seeking to establish or renew accreditation through ABET.
- 5 **The organization that provides the surveying perspective on matters of collective interest through participation in coalitions, and membership in organizations representing geospatial professionals.**
- 6 A partner with the American Land Title Association (ALTA) in the periodic review, adoption, and promulgation of the ALTA/NSPS Land Title Survey Requirements.

## What is NSPS?

**NSPS is the voice of the professional surveying community in the United States and its territories.** Through its affiliation agreements with the respective state surveying societies, NSPS has a strong constituency base through which it communicates directly with lawmakers, agencies, and regulators at both the national and state levels. NSPS monitors and comments on legislation, regulation, and policies that have potential impact on the activities of its members and their clients, and collaborates with a multitude of other organizations within the geospatial community on issues of mutual interest.



*NSPS strives to keep members informed about issues affecting the profession, and their businesses, through a variety of media.*

- » NSPS Radio Hour, a weekly radio show
- » NSPS News & Views, a weekly email newsletter
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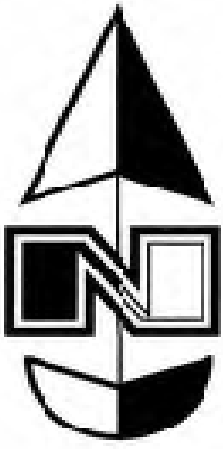
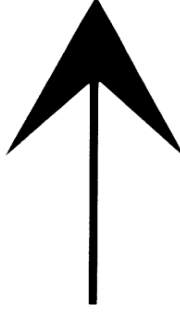

*Professionals Serving the Public Interest*

# National Society of Professional Surveyors



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### **MATCH THE NORTH ARROW TO THE COMPANY**

Company	A	B	C	D	E	
<b>1</b> Anderson – Whalen & Associates						<b>1</b> = _____
<b>2</b> Benchmark Engineering & Surveying						<b>2</b> = _____
<b>3</b> Pehrson Surveying						<b>3</b> = _____
<b>4</b> Ferrari Surveying						<b>4</b> = _____
<b>5</b> LandMark Surveying						<b>5</b> = _____

Answers on page 10

### **Congratulations**

The following successfully completed all of the requirements and exams to become NSPS Certified Survey Technicians:

Rachel Boyack	Meridan Engineering	Level I
Daryl Brown	Watson Engineering Co.	Level II Office
Marshall Burt	Meridian Engineering	Level I
Daniel Milligan	Weber County	Level II Field
Blake Peterson	Sunrise Engineering	Level II Field
Tucker Weight	Weber County	Level I
Darrel Woodruff	Weber County	Level I
Bryan Worthen	Sunrise Engineering	Level I
Lewis Young	Sunrise Engineering	Level I

# Record of Survey - Whose map is it?



By: Aaron Smith, PLS

Many surveyors have made up their minds that the last thing that they can legally do without overlap from other professions is to survey a deed described line, make a determination as to its location and file his or her opinion (map). I may or may not agree with this, but what I am referring to is commonly known as the "Record of Survey and for most Professional Land Surveyors, they consider it their document. During this discussion on the Record of Survey, which is reviewed by the County Surveyor's Office and subsequently recorded in the County Recorder's Office, I will pose the question; whose map is it? Is it a map that is prepared by you and should be recorded as is, or does it have the look and feel of your county surveyors opinion, or do you take into account the future and put together a document that will stand the test of time? I hope that the map will be a compilation of all three. I will take the position that it is the public's map and it is my privilege to survey the lines, set the corners, and file it with the County. On March 16, 1907, the Senate enacted what would be commonly known as the Land Surveyors Act, and most, if not all of those statutes are still with us in the now current Professional Land Surveyors Act (Business and Professions Code, B&P).

Even in 1907, the body of the Senate knew the importance of the duties of the Professional Land Surveyor and set guidelines that even today we rely on. Those individuals who had the foresight to enact these statutes clearly understood the problems then, and the potential for future problems.

The purpose of the Record of Survey, in my opinion, is to review the written documents that describe land boundaries, locate the deed described lines on the ground, which may need extrinsic evidence to locate, such as parol testimony, note any possible discrepancies that may differ from the written document, and finally, make my findings of Public Record. Principle 5, Chapter 14, The Role of the Surveyor, Brown's Boundary Control and Legal Principles, fourth edition states "A land surveyor locates boundary

lines according to the description in the deed and then relates lines of possession that do not agree with these lines and reports the facts to the client, in writing." We can also include in this concept, easements or any other written right that can be identified on the ground from the written record. In the Third Edition of Evidence and Procedures for Boundary Location, Chapter 5, Evidence-General, it says, "The student, surveyor, or attorney must first make the major distinction between facts and evidence. The actual corner point is a fact, all of the information that is used to identify, describe, recover, or pre-serve the point is evidence of that point, the corner." Your map can help perpetuate the evidence that can lead to facts, and the facts can lead to the corner. This map should also locate and show the relationship to any prior surveys, senior lines, or subdivisions that are near or adjoining your property. Your determinations in the location of these lines are a professional opinion, and the evidence used to locate these boundaries should be reflected on your map. If, during the course of your survey, there is a difference in the location of previously set monuments by other surveyors, and that of the lines you have reconstructed, then it is your duty to show these positions on your map so they may be readily retraced by another surveyor. Your map should clearly show why you have disagreed with these monuments, and if needed, a statement should be made on the map for clarity. This is the essence of Perpetuating the Evidence. Each surveyor over time has been trained as to the different types of evidence used to locate boundaries, such as iron pipes, hubs, fences, old road cuts, historic buildings built at the time of the original subdivision, stones, posts in rock mounds, hedge lines...etc. Perpetuating these types of evidence on the map is of paramount responsibility to the surveyor. The evidence reflected on the map should be noted with the ability to reestablish these occupation lines by mathematical computations, or at minimum, compare the relative positions by scale.

If a Professional Land Surveyor makes measurements to locate the deed described lines, which are different from the apparent lines of occupation, and does not show these on his or her map, then one has not done their job. If there are reasons for these differences, and these reasons are not easily detected in the recorded documents, then notes should be placed on the map for further clarification.

The Record of Survey prepared by you, or under your direction, needs to reflect all the pertinent information and evidence used to establish your boundary decisions, and even that evidence you analyzed, but decided not to rely on.

Chapter 5 of Evidence and Procedures says, "Before any surveyor obtains sufficient knowledge of the available evidence, it is nearly impossible to make a correct boundary determination or location." Unrecorded documents, previous surveys made by your firm, old files from previous land surveyors and or engineers, and any testimony from neighbors or 'old timers,' should be noted on your map. The location as to where those documents can be found for inspection by the land surveyor needing to review this information should also be noted in the legend, or notes made on the map. A professional land surveyor should not withhold pertinent



## Record of Survey cont...

information that was used in the final determination of the deed described lines, but should instead look for the opportunity to make that information of public record with the recording of their record of surveyed. The lack of showing all evidence accepted and not accepted could be the reason there is litigation over your map, or boundary resolution.

"Perhaps the worst disagreements arise from a failure of one surveyor to uncover all available evidence. Two surveyors having the same evidence, if equally educated and equally intelligent, should come to the same conclusions. Unfortunately, not all surveyors are equally diligent in their search. The one with all the evidence usually comes to the correct conclusion, whereas the one with partial evidence makes faulty locations." This is a quote from Chapter 5, Evidence and Procedures, and is for both field evidence and research. I hope that surveyors will take the time to uncover the evidence, document that evidence on their map, and perpetuate it for the next land surveyor, so we can have "all the evidence" available to the profession.

"A plat should be complete in itself and should present sufficient evidence of monuments (record and locative) and measurements so that any other surveyor can clearly, without ambiguity, find the locative points and follow the reasoning of the surveyor. A plat does not show the client's land alone; it shows all ties necessary to prove the correctness of location." Chapter 9, Evidence and Procedures.

The map should reflect the measured bearings and distances, B&P code 8764, and compare those to the record information. The record information for comparison could be deeds, maps, unrecorded surveys, unrecorded grants, County right of way maps, survey notes from the County Surveyor's Office, and any other document you have obtained. If these documents are not recorded in the Recorder's Office, they should be referenced on your map. For all the monuments found, there should be a complete description of the monument, including any scribings, character, type of metal, size, and its relative position to occupation, fence corners... etc. If you are noting a fence, then the type and material should be noted as well. This will assist the land surveyor to identify these lines of occupation for future retracements. "If the surveyor is delegated the privilege of remonumentation of deteriorated corners, he should also be delegated the responsibility of perpetuating the evidence." Quote from Chapter 15, Evidence and Procedures.

Now that we have discussed some of the reasoning behind the record of survey, let's look at the question posed, whose map is it? As I stated early on, I believe it is the public's map, and I have been hired to prepare this document and have it recorded with the county in which the survey was made. These maps perpetuate the location of old historic pieces of evidence, and when we can continue to use these maps to relocate these positions, then it is in the interest of the public to have the map properly documented. Land surveyors in the past and the present have felt that the map they were hired to prepare, is the record of their professional opinion and conclusions as to the retracement of the

deed described lines, and the map should be recorded as they see fit. Without a doubt that is true, the map reflects their decisions, and it should, this is the reason we sought licensure, so we can take responsibility for those decisions. If one does a proper survey and documents the map correctly, then there will be no need for comment on the record of survey before filing, which is, in my opinion, the goal that should be strived for with your survey. There is a list of items that the County Surveyor is required to review for technical correctness before they approve the map for recording, and they are listed in section 8764 of the Professional Land Surveyor's Act:

- a) All monuments found, set, reset, replaced, or removed, describing their kind, size, and location, and giving other data relating thereto.
- b) Bearing or witness monuments, basis of bearings, bearing and length of lines, scale of map, and north arrow.
- c) Name and legal designation of the property in which the survey is located, and the date or time period of the survey.
- d) The relationship to those portions of adjacent tracts, streets, or senior conveyances, which have common lines with the survey.
- e) Memorandum of oaths
- f) Statements required by section 8764.5
- g) Any other data necessary for the intelligent interpretation of the various items and locations of the points, lines, and areas shown, or convenient for the identification of the survey or surveyor, as may be determined by the civil engineer or land surveyor preparing the record of survey.

The record of survey shall also show, either graphically or by note, the reason or reasons, if any, why the mandatory filing provisions of paragraphs (1) to (5), inclusive, of subdivision (b) of Section 8762 apply.

### **The record of survey need not consist of a survey of an entire property.**

As you can see, there is not much that can be reviewed to check for consistency with this section. However, one should note subsection (g) which states "any other data necessary for the intelligent interpretation of the various items," again telling the surveyor in responsible charge to ensure that the map and its evidence as shown is in harmony with the results of the evidence on the ground. Remember, the county surveyor reviews your map based upon the information provided by the professional, and hardly ever does the county surveyor visit the subject property to inspect the results of your survey. If the record of survey is properly documented, then the evidence used in today's boundary determination will be made of record for all of time, and the welfare of the public as it relates to land boundaries are better served.

There is one other section that allows for further review by the county surveyor and that is section 8766 (c) which in part states, "nothing in this section shall limit the county surveyor from including notes expressing opinions regarding the record of survey, or the methods or procedures utilized or employed in the performance of the survey." When applicable, it is appropriate for the county surveyor to request additional information to substantiate the conclusion of the field survey performed,

## Record of Survey cont...

and I believe this section allows for the county surveyor to ask for this. And of course, we are all familiar with section 8768, which in short says the county surveyor and the surveyor preparing the map may add notes to the items not agreed upon in accordance with section 8766, and these notes are added to the map prior to recording.

I have taken the position with my maps that the agency reviewing my survey map before it records is the last set of eyes to check my work and provide me with feedback. I would rather have a comment on the review of my map, than for the map to record for all of time with my errors. I may not always agree with the comments, but rarely do I find a need to argue with them either.

One of our jobs as a professional surveyor in the state of California is to render a professional opinion on the location of a deed described line. Yes, there are those who believe we are licensed to monument and locate the unwritten transfer of title, better known as Adverse Possession or Prescriptive Rights, but I still believe we should locate deed described lines and show the relationship of occupied land that is not consistent with the deed, and let the judicial system transfer unwritten rights when necessary. This can be a complicated area of surveying, and I will not render any opinions on how you or your firm should handle these situations. When there is a discrepancy between the deeds described lines and the lines of apparent occupation, I believe the land surveyor has a duty to both parties to find solutions. It is unfair to the property owners, to set your corners, note the discrepancies on the map, and record it without the involvement of the neighbors. Yes, I do think Land Surveyors should play an active role in the solution, but they must also understand the laws, and which remedies are applicable to their situation. You do not want to make the situation worse by applying an incorrect solution to the already existing controversy between neighbors.

When we, as Professional Land Surveyors, perform a survey and document it to perpetuate all the possible evidence, it is then, that the public's best interest is protected, and the land surveyor has done their job, and so, the question, 'whose map is it?.'

Something I feel all land surveyors should remember; the budget should never compromise the integrity of the survey work. We have been hired to perform a function, and an important one at that, one that affects not only your client, who is paying the bill, but all of the adjoining lines you are surveying. Consider the impacts of reestablishing a section corner, the impact of that decision could affect property rights in four different sections, 2 miles by 2 miles. More importantly, most, if not all of the property owners who are affected by the field survey and establishment of the section corner, had no input to your roles and responsibilities, but the survey is now of record.

We are charged with being a Professional, so one should not step lightly into this line of work, unless they are prepared. For those surveyors who have been around awhile, they should look to pass on as much knowledge and skill as possible to those who will follow. One of the ways to perpetuate evidence is to teach and mentor those individuals coming up through the profession, so they may learn the proper techniques and skills to allow

them to be a Professional, and protect the welfare of the public as you have.

*This article is not a guide to performing boundary surveys and preparing Records of Survey's, but merely a reminder to remember what your job as Professional Land Surveyor is, and a very important one, at that.*

*I would like to thank Paul M. Brown, PLS and Lawrence A. Stevens, PLS for their mentoring efforts.*

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### Technology Check

If you want to know if you have the right amount of technology for your company, I have devised a simple check: At night and without the lights on, visit the room where you keep your surveying equipment. When you open the door, you should have at least 10 to 20 red, green or yellow lights staring at you like the eyes of the big cats at the zoo. If you don't see many lights, you may need more technology!

### Memos from our members:

I, and I'm sure others, do not appreciate the politically biased cartoon you, or the author, chose to insert with the James Coutts letter. It shows all republican candidates in a degrading light to garner a quick laugh and fails to perform similar portrayals of Hillary Clinton or Bernie Saunders.

I am a member of this group to receive interaction on surveying and to support the representation of our issues as surveyors not as a platform for some to express their political viewpoint or bias. Your actions are not only in poor taste but absolutely out of line. Please keep politics out of this association except when it directly affects the members in addressing surveyor centric legislation.

### EDITOR'S RESPONSE

*On behalf of the UCLS publication committee, and me personally, please accept our apologies. It has never been our intent to embarrass or offend anyone or any organization.*

Thanks for the feedback.

Steve

Answers to North Arrow Question 1= C; 2= A; 3= D; 4= E; 5= B

## History of time in the United States

Map of U.S. time zones between April 2, 2006, and March 11, 2007. The current situation is different only in that six Indiana counties have since been moved from the Central time zone to the Eastern time zone.

The history of standard time in the United States began November 18, 1883, when United States and Canadian railroads instituted standard time in time zones. Before then, time of day was a local matter, and most cities and towns used some form of local solar time, maintained by some well-known clock (for example, on a church steeple or in a jeweler's window). The new standard time system was not immediately embraced by all.

Use of standard time gradually increased because of its obvious practical advantages for communication and travel. Standard time in time zones was not established in U.S. law until the Standard Time Act of 1918 of March 19, 1918, also known as the Calder Act (15 USC 260). The act established daylight saving time, itself a contentious idea.

Daylight saving time was repealed in 1919, but standard time in time zones remained in law, with the Interstate Commerce Commission (ICC) having the authority over time zone boundaries. Daylight time became a local matter. It was re-established nationally early in World War II, and was continuously observed until the end of the war.

After the war, its use varied among states and localities. The Uniform Time Act of 1966 provided standardization in the dates of beginning and end of daylight time in the U.S. but allowed for local exemptions from its observance. The act also continued the authority of the ICC over time zone boundaries. In subsequent years, the United States Congress transferred the authority over time zones to the U.S. Department of Transportation (DOT), modified (several times) the beginning date of daylight time, and renamed the three western most time zones.

Time zone boundaries have changed greatly since their original introduction and changes still occasionally occur. DOT issues press releases when these changes are made. Generally, time zone boundaries have tended to shift westward. Places on the eastern edge of a time zone can effectively move sunset an hour later (by the clock) by shifting to the time zone immediately to their east.

If they do so, the boundary of that zone is locally shifted to the west, the accumulation of such changes results in the long-term westward trend. The process is not inexorable, however, since the late sunrises experienced by such places during the winter may be regarded as too undesirable. Furthermore, under the law, the principal standard for deciding on a time zone change is the "convenience of commerce". Proposed time zone changes have been both approved and rejected based on this criterion, although most such proposals have been accepted.

### Interesting Time Zone Trivia:

1. Although Russia is geographically spread over 12 time zones, it officially observes only 9 time zones (from March 2010).
2. Australia has both horizontal and vertical time zones in summer.
3. If two places are located in opposite hemispheres and both places use DST- the time difference between those two places can be 1-3 hours offset during a year.
4. Equatorial and tropical countries (lower latitudes) usually do not observe Daylight Saving Time as the duration of day / night are very much the same - 12 hours.
5. Usually, when one travels in an easterly direction - a different time zone is crossed every 15 degrees of longitude (which is equal to one hour in time). However, there are exceptions.
6. China observes one time zone UTC/GMT + 08:00 - which makes this time zone uncommonly wide. In the extreme western part of China the sun is at its highest point at 15:00, in the extreme eastern part - at 11:00.
7. "Daylight Saving Time" (DST) is the name commonly used in North America. Some regions (Europe, South America) more commonly use the name "Summer Time". This could create some confusion in the meaning of some time zone abbreviations, as ST could stand for "Summer Time" + 1 hour (Europe, South America) and for "Standard Time" (North America)
8. The state of Arizona does not observe DST. However the Navajo Reservation does change to Daylight time. The Hopi Reservation is within the Navajo Reservation and does not observe DST (as does the rest of the state).
9. Some countries use different rules to start and end DST. For example, a law in Israel requires that summer must last at least 150 days.
10. Greenwich time (Greenwich Lab is located in London) has the same time as London time during winter time, however London is 1 hour ahead of GMT during summer time.





### National Surveyors Week

Each year in March, the National Society of Professional Surveyors (NSPS), its members, and the respective professional surveyor organizations across the United States celebrate both the heritage and the contributions to society of one of the world's oldest professions.

From the "rope stretchers" of ancient Egypt to current day users of GPS and Drones, Surveyors have been at the forefront of the latest in technology to gather, analyze, and interpret data about land.

During the week of March 19-25, 2017, Professional Surveyors are encouraged to make a special effort to share their story with their fellow citizens. Professional Surveyors are the only professionals who are involved in every land-related activity, from boundary line issues to providing precise and accurate guidance for the construction of "everything". They are the only professionals who are licensed by the respective states with the charge of certifying as to the correct location of land boundaries.

The Utah Council of Land Surveyors encourages everyone to take time to better get to know the Professional Surveyors in their community. Finding them is likely to be as simple as typing "professional surveyors in Utah", or looking in the phone book.

To learn more about surveying and Professional Surveyors, contact the Utah Council of Land Surveyor at <http://www.ucls.org/> or the National Society of Professional Surveyors at <http://www.nsps.us.com/>.



# National Surveyors Week Volunteer Kit

SPONSORED BY



**NCEES**  
*advancing licensure for  
engineers and surveyors*

WHO. WHAT. WHEN. WHERE. WHY.

# HOW!

## It's all about the HOW.

It's not breaking news that the annual number of retiring surveyors far exceeds the number of those entering the surveying profession. It's up to us to reverse this trend. One of the best ways to do that is to introduce the newest generation to the surveying profession. Show them how interesting your job is and how it relates to their local community.

### SECTION 1

## How to request a proclamation.

An easy way to bring public recognition to the profession is by obtaining proclamations from local, state, and national governments to recognize the contributions of surveyors.

Contact the state and local government offices from which you would like to request a proclamation to determine the process for each. Most state and local governments need at least 3–4 weeks to complete the request. Sample proclamations are available on the National Surveyors Week website, which can be accessed through the NSPS website at [www.nsps.us.com](http://www.nsps.us.com). Make sure you follow up to confirm receipt of your request and to find out how long it will take to complete it, how you will be notified, and if you can schedule a signing ceremony.

If you are able to schedule a signing ceremony,

- Arrange to have several surveyors present
- Promote the day and time of the ceremony on community calendars and in local news publications
- Make sure a photographer will be present at the event so that you can include a photo with any news releases and post them on your website

### SECTION 2

## How do I talk to kids about surveying?

### HOW do I start?

Identify potential groups within your local community. Your list should include local elementary and middle schools, after-school care programs, Boy Scout and Girl Scout troops, Boys and Girls Clubs, and other area youth groups.

### HOW do I set up a visit?

Look at your list and see if you have a personal connection to any of the groups. Do you have a daughter who is a Girl Scout? Is your neighbor an elementary school teacher?

Once you've identified a group to work with,

- Reach out to them and explain that you are interested in visiting the group and leading a hands-on activity related to surveying
- Answer any questions they may have
- Ask if they have a volunteer policy
- Schedule and confirm a date and time for the visit

## SECTION 2

(continued)

### HOW do I explain surveying to kids?

Hands-on activities are the best way to engage the group and illustrate basic surveying principles. You can also bring some of your equipment and demonstrate how and why you use it.

### HOW do I get kids excited about the profession?

Use phrases like making a difference and problem solving. Avoid phrases and terms that make it sound difficult to become a surveyor. Ask them about their interests, and see if any of them relate to the profession. Do they like to work with computers? If so, tell them how you use computers and other advanced technology in surveying. Are they interested in history? Tell them about the historical significance of the profession and boundaries. Demonstrate the technology you use every day.

### HOW do I prepare for my visit?

#### 7–10 days before the visit

Decide which of your favorite activities you'd like to share with the group, and gather the necessary materials. If you don't have a favorite activity or would like some new ideas, visit the National Surveyors Week website via [www.nsps.us.com](http://www.nsps.us.com) and download a free copy of GPS Adventures. This easy-to-follow guide provides sample GPS-related hands-on activities that are easily adapted to include basic surveying principles.

#### Day of visit

Make sure you wear something that you would typically wear to work. If you often work in the field, consider wearing your outdoor attire and gear. Students are usually quick to recognize a surveyor when he or she has on a hard hat and other outdoor gear. And remember, relax, smile, and have fun!

#### Day after visit

Follow up with the teacher or leaders of the group to thank them for the opportunity and to make sure they know where to find more information. Ask for feedback on the session and activity.

## SECTION 3

### GPS on Bench Marks

National Surveyors Week provides a great opportunity to participate in the *GPS on Bench Marks* program.

Before starting, visit the NGS website at [gcodesy.noaa.gov/GPSonBM/](http://gcodesy.noaa.gov/GPSonBM/). You will find information to help you identify marks of interest and complete some preliminary reconnaissance. Next, you can learn how to record field notes, take digital photos, and collect GPS observations or coordinates for the bench mark you visit. Finally, you can use online tools to send the information to NGS.

## SECTION 4

### Surveying Merit Badge

#### HOW can I help a Boy Scout earn the Surveying Merit Badge?

Helping a Boy Scout earn the surveying merit badge has never been easier. Start by visiting the Boy Scouts of America website ([www.scouting.org](http://www.scouting.org)) to download the current badge requirements. Then visit the NSPS website ([www.nsps.us.com](http://www.nsps.us.com)) for step-by-step instructions on how to complete the requirements and tutorials.

After reviewing the requirements, identify local Boy Scout troop leaders in your community. Reach out to them and offer to help their scouts complete the badge requirements. Completing all of the requirements for the badge can take approximately 6–7 hours.

## SECTION 5

### Trig-Star

#### HOW can I get involved in the Trig-Star Competition?

Trig-Star is an annual competition for high school trigonometry students. It connects what students are learning in the classroom with a profession that requires those skills.

Volunteers are needed to assist in administering the exams and presenting information to the students about the surveying profession. Contact your state coordinator and let them know that you are interested in volunteering. Visit [www.trig-star.info](http://www.trig-star.info) for more information and for a list of state coordinators.



Insurance Programs For Members of:



#### PARTS OF THE AFFORDABLE CARE ACT (OBAMACARE) THAT THE NEW REPUBLICAN HEALTHCARE BILL WILL KEEP, CHANGE, OR REPEAL

The Republican Health Care Bill changes how health care is financed for people who do not have Group Insurance offered through their employer. The plan will eliminate the Individual and Employer mandate requiring most Americans to have Health Insurance.

#### PARTS OF THE AFFORDABLE CARE ACT THAT THE NEW REPUBLICAN HEALTH CARE BILL WILL KEEP

Dependent Coverage until 26	Affordable Care Act (Obamacare)	House Republican Bill
	Under the A.C.A., children can stay on their parents' insurance policies until age 26	<b>Keep</b>
<b>Pre-existing conditions policy</b>	The A.C.A. requires insurers to cover people regardless of pre-existing medical conditions, and bars the companies from charging more based on a person's health history.	<b>Keep</b>
<b>Essential health benefits</b>	Under the A.C.A., all insurance must offer 10 essential health benefits, including maternity care and preventive services.	<b>Keep</b>
<b>Prohibitions on annual and lifetime limits</b>	The A.C.A bars insurers from setting a limit on how much they have to pay to cover someone.	<b>Keep</b>

#### PARTS OF THE AFFORDABLE CARE ACT THAT THE NEW REPUBLICAN HEALTH CARE BILL WILL REPEAL

Individual mandate	Affordable Care Act (Obamacare)	House Republican Bill
	The Affordable Care Act, or A.C.A., requires people who can afford it to obtain health insurance or face tax penalties. This part of the law was meant to keep insurance affordable for those who are older or sick.	<b>Repeal</b> The Republican bill eliminates the individual mandate, which means that people will not have to pay a penalty if they go without insurance. One possible effect, though, is that healthy people may be less likely to buy insurance, driving up prices for those who need it most, like older people and the sick. To limit this, the plan proposes a "continuous coverage incentive," which charges people in the market a 30 percent penalty for any lapses in health insurance coverage.
<b>Employer mandate</b>	Under the A.C.A., larger companies must provide Affordable insurance to their employees or face financial penalties.	<b>Repeal</b>
<b>Subsidies for out-of-pocket Expenses</b>	Under the A.C.A, the federal government provides tax credits to help some people pay deductibles and co-payments.	<b>Repeal</b> Repeals this so-called "cost-sharing subsidy" in 2020.

## PARTS OF THE AFFORDABLE CARE ACT THAT THE NEW REPUBLICAN HEALTH CARE BILL WILL CHANGE

## Premium subsidies

Affordable Care Act  
(Obamacare)

Under the A.C.A., the federal government provides tax credits to middle-income Americans on a sliding scale according to income, to help offset the cost of Premiums and deductibles.

## House Republican Bill

## Change

Changes the way subsidies will be distributed by using age, instead of income, as a way to calculate how much people will receive. Tax credits will be available in full to individuals earning less than \$75,000 and households earning less than \$150,000, but they will be capped for higher earners. For a person under 30, the subsidy would be \$2,000, and double for people over 60. The bill also expands the type of health plans that qualify for subsidies.

## Medicaid expansion

Under the A.C.A., more than 30 states expanded Medicaid coverage by raising the eligibility cutoff to 138 percent of the poverty level.

## Change

Lets states keep Medicaid expansion and allows states that expanded Medicaid to continue getting federal funding as they would have under the A.C.A., until 2020. Federal funding for people who become newly eligible Starting in 2020 or who leave the program and come Back, however, would be reduced. The bill also propose capping federal funding per enrollee, based on how much each state was spending in fiscal year 2016.

## Health Saving Account

Under the current law, in 2017, an individual Can put \$3,400 and a family \$6,750 into tax-free health saving account.

## Change

Allows People to put substantially more money into their health saving account and lets spouses make additional contributions. The basic limit will be at least \$6,550 for an individual and \$13,100 for family beginning in 2018.

Restrictions on charging more for  
older Americans

Under the A.C.A., plans can charge their oldest customers only three times the prices charged to the youngest ones.

## Change

Allow insurers to charge older customers five times As much as younger ones and gives state the option to set their own ratio.



### UCLS will be participating in the historic 2018 Regional Surveying Conference

After significant and ardent discussions among members of the Board as well as an examination of the poll results of approximately 170 approved members, the Board voted YES on Tuesday morning March 28th, to participate with Nevada, Arizona, and WestFed, in lieu of our usual annual St. George conference, in what will be called the 2018 Regional Surveying Conference in March or April 2018 (depending on costs) at the Golden Nugget in Las Vegas, Nevada. Each state surveying association will be represented with members on the conference planning committee so please give Todd Jacobsen and/or James Coutts your input on schedule and content. As a Board we look forward to what could prove to be one of the best surveying conferences in a very long time.

Dan Perry  
UCLS Chairman

### Professional Engineer and Professional Land Surveyor Case Report

#### Closed Cases August to December 31, 2016.

<u>Profession</u>	<u>Allegations</u>	<u>Action</u>
Engineer	The subject (a licensed engineer) was hired as a special inspector to monitor installation of micro piles. The piles were designed by a second licensed engineer and the plans for the installation were approved by the City. The subject did not follow the approved plans and the micro piles were condemned.	Letter of concern
Engineer	Licensed Professional Engineer, filed documents for a building permit that were not to the current code, used the electronic signature and State of Utah certification for septic tank designer without his permission.	Letter of concern
Land Surveyor	A Professional Land surveyor self-reported that he had failed to record boundary lines with the County Recorder's Office twice over the last six years after he submitted a partial survey to a client. These were both jobs he felt were not complete and was waiting to finish the work prior to recording them.	Letter of concern
Engineer	Allegation of an Engineer having his North Carolina, Engineering license revoked and disciplinary action taken by South Carolina Kansas, Missouri, Alabama, and Massachusetts.	Letter of Concern
Engineer	An Engineer for a Municipality, drew up plans for a Detention Basin Improvement, and did not stamp the completed plans as required by statute. The investigation substantiated the allegations.	Letter of Concern





# Director's Report

*Reprinted from the Pennsylvania Surveyor*

## 2016 NSPS Year End Activity Summary Report

### National Association of Realtors

NSPS contacted the National Association of Realtors regarding its Code of Ethics, stating "NSPS urges the National Association of Realtors to add the following language to Article 13 of its Code of Ethics and Standards of Practice document: REALTORS(r) shall not engage in activities that constitute the unauthorized practice of Land Surveying and shall recommend that counsel of a professional land surveyor be obtained when the interest of any party to the transaction requires it. The NSPS proposed statement is similar to an existing statement in the NAR Code of Ethics related to activities that may constitute the unauthorized practice of law. After further interaction, and NSPS responding to a NAR request for examples of the types of activities we are concerned about, the NAR Interpretations and Procedures Advisory Board responded that it sees no reason to add the NSPS proposed statement, adding that it feels confident that NAR's overall Code of Ethics language is sufficient with regard to "surveying activities". Of course, NSPS disagrees with this and plans to readdress the issue.

### Certified Floodplain Surveyor (CFS)

There is rekindled interest for expanding the use of a joint NSPS/ASFPM Certified Floodplain Surveyor certification program to other states. Currently the program is available only in North Carolina. Recent discussions regarding the expansion of the program will be continued during the Tennessee Association of Professional Surveyors conference in March.

### NAD 22

NSPS representatives worked with NGS and representatives from other groups to develop template legislation for use by the respective state legislatures to revise/amend their state laws dealing with datums when NAD 22 becomes effective. The template can be accessed from the NSPS website.

### Future of Surveying Task Force

During a meeting of the Task Force, June 10-11 in Baton Rouge, NSPS took the reins as the "lead organization" for future activities of the group, which was originally initiated with NCEES support. Surprising, and very rewarding, is the fact that from among the 18 organizations participating in the initial. Among the topics discussed were the results from a questionnaire, prepared for NSPS (and the Task Force) by Gavin Schrock and xyHt magazine. Over 2200 surveyors from across the country responded. Three committees were formed to focus on critical issues, which need to be addressed. NSPS is also seeking to have the Young Surveyors Network to become more active in this effort.

### Workforce Development

During its Spring 2016 meetings, NSPS established a Workforce Development initiative to work in concert with the activities of the Future of Surveying Task Force and the respective state surveying societies to develop a program to create the framework for insuring the perpetuation of the surveying profession.

### Davis Bacon Act

NSPS recently sent a letter ([http://www.nsp.us.com/resource/resmgr/Davis-Bacon/NSPS\\_letter\\_to\\_Dept\\_of\\_Labor.pdf](http://www.nsp.us.com/resource/resmgr/Davis-Bacon/NSPS_letter_to_Dept_of_Labor.pdf)) to the Department of Labor (DoL) regarding the application of Davis Bacon prevailing wage rates to members of survey crews. The letter suggests that a recent statement by DoL related to the classification of air balance engineers also "accurately describes the standing and circumstance of a survey crew member", albeit in the performance of a different activity. The NSPS letter also requested that DoL issue a revised All Agency Memorandum reflecting this fact. In its response dated 11/28/16, DoL rejected the NSPS proposal, stating, "The Department believes that its current guidance is accurate and that no additional action is necessary" With the potential impact on federal agency leadership as a result of the recent elections, NSPS will revisit this issue.

### NSPS Encourages more participation in the National TrigStar Competition, the NSPS Map/Plat Competition, and the NSPS Journalism Competition

The 2016 national TrigStar competition included participation by 38 state winners. The TrigStar Committee continues to work for broader participation among the state societies. The recently initiated NSPS \$5000 TrigStar scholarship seems to have served as an incentive. Any graduating high school student who has competed in TrigStar at any time during their high school years, and can demonstrate proof of acceptance in a college program providing education applicable toward achieving licensure, is eligible to apply for the scholarship. The 2016 NSPS Map/Plat competition drew 43 total entries among its five (5) categories. Results are posted on the NSPS website. The respective state surveying societies are urged to submit the winning plats from their annual competition. The NSPS Journalism competition among the respective state societies continues to draw participation with eight (8) state societies presenting entries in the four (4) categories in 2016.

### NSPS Foundation issues \$29,000 in scholarships

Two new scholarships were initiated in 2016. One was created through the New Jersey Society of Professional Surveyors in the name Walt Robillard. The other was initiated through NSPS, and resulted from a gift of \$130,000 from the estate of Dr. Ing. Desider E. Slavoj. Learn more about the scholarship program at (<http://www.nsp.us.com/?page=Scholarships>).

### NSPS Workshop Database

NSPS is nearing completion of the first edition a workshop speaker database to be shared with the respective state societies for use in planning for their conferences and other educational activities. The list will include primarily those speakers who can be available on a nationwide basis. More than 30 speakers have responded positively to the inquiry sent by NSPS. NSPS hopes to coordinate with other national organizations that provide workshops to their respective members.

### Property Records Industry Association (PRIA)

On Wednesday March 15 during the NSPS/MAPPS 2017 Spring conference, NSPS and PRIA will hold a two-hour session on the concept establishing a way to link actual survey plats to property records so they are used for property information rather than relying on GIS data.

### **NSPS Student Chapters**

NSPS is beginning an initiative to establish Student Chapters within the respective college programs throughout the US and Territories. Thanks to information provided from NSPS members, leaders, and affiliated state societies, NSPS has created a page on its website listing of all the programs of which it is aware. Currently, only 12 of those programs have NSPS Student Chapters.

### **New NSPS Brochures**

New brochures related to surveying careers, NSPS benefits, and information about what NSPS does have been developed, and printed. The brochures are available to members, the state societies, and educational institutions. Samples can be viewed on the NSPS website along with brochures developed by state surveying societies.

### **NSPS Social Media Update**

Members are encouraged to take advantage of the extensive NSPS social media outlets. In addition to the very popular weekly email newsletter, NSPS News & Views, and the weekly web radio show, NSPS Radio Hour, members can also get current information and share in dialog by searching National Society of Professional Surveyors on Twitter, Facebook, LinkedIn, and YouTube accounts.

### **Recent Memoranda of Understanding by NSPS**

1. Young Surveyors Network (signed during the NSPS 2017 Fall meetings)
2. United States Institute of Building Documentation (USBID) (signed October 2016)
3. Utility Engineering and Surveying Institute (American Society of Civil Engineers)

### **Direct Point Positioning Survey Procedure (DPPS) - BLM/Alaska**

A NSPS Committee, Chaired by Tim Kent, has submitted its final report related to the effect of the DPPS process proposed by BLM for the establishment of boundary line markers for the remaining lands to be ceded to the State of Alaska as a result of Alaska statehood over 50 years ago. The DPPS process, as proposed by BLM, would utilize calculated GPS positions rather than monuments placed in the ground, as was initially required in the statehood agreement.

### **Should Hydrographers be Licensed as Surveyors**

The Oregon legislature in the spring of 2017, Professional Land Surveyors of Oregon Lobbyist Darrell Fuller has requested a position statement from NSPS regarding the question of whether hydrographers must be licensed to provide services in the state.

### **International Property Measurement Standards and International Ethics Standards**

NSPS is a member of the international coalitions of professional organizations, agencies, and academia, which have developed non-binding international standards for property measurement (what is located, not how) and ethics. The NSPS Executive Director has been an active member of both groups since their inception.

### **NSPS Reacts to HeroX Challenge Related to ALTA/NSPS Surveys**

Mid-year 2016 NSPS became aware of a "challenge" set to be offered through a company called HeroX. In order to learn more about this, a representative of HeroX was invited to be a guest on the NSPS Radio Hour. During the show, it was learned that HeroX is a company, which facilitates "challenges" put forth soliciting innovative solutions to perceived problems or opportunities. In this case, a company that builds storage units across the U.S. was seeking to shorten the time required to perform ALTA/NSPS Land Title Surveys, assuming that "modern technology" should be able to resolve boundary issues and provide "feature location" more readily, and thus shortening the time. During the radio show, and thereafter, Gary Kent and Curt Sumner attempted to explain that conducting "ALTA Surveys" (or any boundary related survey) is more than simply gathering data, making some calculations, and drafting a plat. Still, there is always the possibility that someone would come up with a more efficient way to gather records/data, which might be of use. NSPS continues to monitor the concepts presented in response to the "challenge" in order to make comments about their validity and/or feasible. Gary Kent has agreed to participate in evaluating the entries in order to provide the surveying perspective to any proposed "solutions".

### **NSPS and MAPPS 2017 conference to feature innovative interaction opportunity**

The NSPS/MAPPS March 12-17 conference in Silver Spring, MD will offer an unusual concept in vendor/ participant interaction. In addition to the annual NSPS Student Competition, two all-day workshops, agency briefings, and Capitol Hill Day, the early-week program will also offer a Speed Mentoring/Speed Dating inspired "Tech Time" program in lieu of a traditional exhibit hall. This concept consists of short (10-15 minute) small-group dialog sessions between exhibitors and attendees, at the end of which each small group rotating to the next "booth".

### **Flood Insurance Reform with Better Surveying, Mapping and Elevation Data**

The current statutory authority for FEMA's National Flood Insurance Program (NFIP)'s is scheduled to expire this September. Due to losses from Katrina, Sandy and other super storms, the NFIP remains roughly \$24 billion in debt to U.S. taxpayers and hasn't repaid any principal on its loans since 2010. In 2017, Congress will seek to reauthorize Biggert-Waters or further reform the program. Improved surveying and mapping will help FEMA calculate its risk and put the program on a more sound financial footing. There is an important role for LiDAR technology and other mapping activities used to accurately locate structures and preparing letters of map amendment (LOMA), as well as the need for current/accurate elevation data, such as would be provided by USGS through the 3D Elevation Program (3DEP). Elevation data are essential for flood mitigation, conservation management, infrastructure development, national security, and many other applications.

### **Infrastructure**

President Trump and various Committees are planning a major infrastructure program of an estimated \$1 trillion for roads, bridges, airports, and other types of infrastructure. All of these projects require quality and accurate surveying and mapping data, products and services. In recognizing the importance of accurate geospatial data, Congress should include legislative language calling for surveying, mapping and geospatial data for the planning, design, construction operation and maintenance for all related infrastructure projects. Data needs include: Elevation; Boundary; Topo; Planimetrics; As-Builts; Asset Management; Etc. MAPPS and NSPS respectfully urge sponsorship of provisions allowing for improved utilization of surveying and mapping technologies and applications in infrastructure legislation in the 115th Congress.

### **Private Sector Utilization**

A positive public-private partnership business model is needed so that there are clearly defined roles, responsibilities and synergy between the public and private sectors, particularly in geospatial activities at the Federal level. There is a dangerous trend toward "in-sourcing" and building in-house government capabilities at the expense of private sector job creation, in the Federal government's geospatial activities. Federal agencies are purchasing equipment to build their own agency capacity to conduct what are considered commercial geospatial activities in mapping, surveying, and charting. Agencies are also bringing contracted geospatial services into the government for performance by Federal employees. A robust, qualified and competent private sector exists within the mapping and surveying profession and government at all levels should utilize it, not duplicate or compete with it.

### Spring 101

- The first day of spring is called the vernal equinox. The term *vernal* is Latin for “spring” and *equinox* is Latin for “equal night.”
- The fall and spring equinoxes are the only two times during the year when the sun rises due east and sets due west.
- On the first day of spring, a person at the North Pole would see the sun skimming across the horizon, beginning six months of uninterrupted daylight. A person at the South Pole would see the sun skimming across the horizon, signaling the start of six months of darkness.
- Spring almost always arrives on March 20 or 21, but sometimes on the 19th. The reason the equinoxes and solstices don’t always come on the same day is that Earth doesn’t circle the sun in exactly 365 days.
- If Pope Gregory XIII would not have established the Gregorian calendar, which most of the world now observes, in 1582, then every 128 years the vernal equinox would have come a full calendar day earlier, eventually putting Easter in midwinter.
- The first day of spring in the Southern Hemisphere is the first day of all in the Northern Hemisphere.
- The first spring flowers are typically lilacs, irises, lilies, tulips, daffodils, and dandelions.



Photo submitted by Mark Gregory

