



MISSOURI SURVEYOR

A Quarterly Publication of the
Missouri Society of Professional Surveyors

Jefferson City, Missouri

September 2019

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CALENDAR OF EVENTS

2019

October 3-5, 2019
62nd Annual Meeting and Convention
Holiday Executive Center
Columbia, MO

December 7, 2019
Board Meeting
MSPS Office, Jefferson City, MO

2020

April 30 - May 2, 2020
42nd Annual Spring Workshop
Lodge of Four Seasons,
Lake Ozark, MO

October 22-24, 2020
63rd Annual Meeting
Oasis Hotel and Conference
Center
Springfield, MO

Front cover:
“Cypress-Tupelo Swamp
of Southeast Missouri,
picture by Katelyn L.
Pulliam”.

Donald R. Martin, Editor



Notes from the Editor's Desk

Donald R. Martin



Missouri Surveyor readers, I bring you this September 2019 Edition! With my trusted ol' pard Tripod the three-legged ground hog at my side, I am going about this *Note* a bit differently than I have in most editions. Instead of discussing and introducing the contents awaiting your perusal I prefer to talk to you a bit. A bit somber, a bit serious, a bit sad, a bit celebratory, and all sincere...

Where will we find the next generation of surveyors? Have you heard that question before? Have you asked it yourself? Really, those are rhetorical questions because of course you have heard them and most probably you have asked them. The ranks of surveyors are depleting due to our “demography”, but those very ranks are not replenishing due to various behavioral economic forces. How will this profession renew? And who will be the future surveyors? Valid questions – valid concerns. But I am pondering these not in the spirit of turning a foresight to the next generation. These thoughts rest upon me in terms of their natural juxtapositions which we seemingly do no not ponder. While posing questions of future surveyors, maybe we need first to backstight and wonder...where did we find previous generations of surveyors?

These are not cryptic questions. These are the very thoughts we should pose when seeking to “solve” our contemporary challenges of onboarding the “Next Gen.” If anyone should understand this it is surveyors because we are the masters of knowing that to look ahead we must first look back. It is simply back-sighting and fore-sighting. So, here in the summer of 2019 let us pull together the historic information of that which worked before to solve the puzzle of that which we need ahead. Why now? I suppose in part because this is a season of historic reflection. The 75th anniversary of D-day passed this summer, and so has the 50th anniversary of man-on-the-moon. As we herald the triumphs of those coming before in this season of national recognition, should we not do so as well in terms of recognition within our venerable profession? Such thoughts are prompted by the contents within the pages (30 and 31) entitled ‘Announcements’ of this edition.

Twenty years ago our nation engaged the waning days of the *Greatest Generation* – the survivors and heroes of the Great Depression and World War II. Through biographies, televised series and movies we honored those who came before. In so doing we grounded ourselves by modeling these fine examples. If they succeeded in more challenging times, surely we could succeed by emulating their behaviors. Might that apply today? What if that which enabled our predecessors to conquer their challenges will serve the same purposes today? Maybe, just maybe, the lessons to be taken from Ehlmann, Houk, McFarland, Ranum and Stewart (and Myers and Norvell from our previous edition) are models for today. Were they not part of *Missouri surveying's greatest generation*? Theirs was a time of land tenure expansion through the sprawl of post war suburbanization. It was the boom days of interstate highways. It was also the era of standards development through codes and statutes. It even included the founding of the Missouri Association of Registered Land Surveyors. And all the while, they surveyed too!

So as we take on the solving of who shall follow in our footsteps, let us not ignore the examples set by those who's steps we follow and seek to fill. Maybe the answers are to be found in remembering and honoring our passing brethren cited in the Announcements pages of this newsletter and any other posting which says ‘good-bye’ to our departed. It could very well be that those who preceded us were *Surveying's Greatest Generation*. 🇺🇸

Donald

*For those who feel they have seen this message before, much of it was taken from a similar Note I have written for another publication I edit. The matter of multiple ‘announcements’ per edition is not unique to Missouri surveying – it is happening all over. I may have first written about it **there**, but tonight, I am feeling it **here**.*

THE MISSOURI SURVEYOR

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The Missouri Surveyor is published quarterly by the Missouri Society of Professional Surveyors, to inform land surveyors and related professions, government officials, educational institutions, contractors, suppliers and associated businesses and industries about land surveying affairs. Articles or opinions appearing in this publication do not necessarily reflect the viewpoints of MSPS but are published as a service to its members, the general public and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes or deletions as to its contents. Articles may be reprinted with due credit given.

President's Message

Chris Wickern, PLS



My last Presidents Message and I think of the many strides we as a Society have made. No, not just in my year of service. I speak of the strides we make as a professional society that span far beyond a one year term of office.

Our service to the Society follows the pattern of our profession, to follow the footsteps of those who tread the land before us. What they *established*, must be honored. Following their steps is indeed an art requiring mastery to perform and preserve peaceful, harmonious boundaries.

We follow those steps by establishing, reestablishing, setting monuments and recording. In this we perpetuate the past and preserve it for the future. As we become involved as members of committees, elected to various offices in this noble Society, we follow the footsteps of those who have come before us. I am in debt to the many who have come before me and had the privilege to serve as President.

To safeguard the past with the advent of new technologies into the future, requires your involvement. One example is the new State Coordinate System to be implemented in the near future. It will affect our Standards, require new legislation and continuing education to learn the new system. The Society needs your ideas and more importantly, we need you to become involved.

We have lost some very talented surveyors this year. My friend Rich Norvell, everyone's mentor Bob Myers, our 1st State Land Surveyor, and so many others. We think of the distinguished professionals we have known from North to South and East to West, surveyors, our mentors, from all corners of the State who are no longer with us. In tribute to all those whose lines we follow, all those who have worked so diligently within this Society and with our promise to continue the work into tomorrow; I offer the following written by my friend John Giles, West Virginia, LS 2040:

Light slowly dims
Final plat drawn
Last corner set
But he's not gone

His art is his steps
Others to follow
Over Mountain or hill
Through swamp across hollow


Surveyor's last breath
Body and soul part
Footsteps left to follow
Surveyor's work of art

Cut in stone
Scribed into bark
Surveyor took pride
When leaving his mark

A Picasso or Rembrandt
Viewed for pleasure
A Surveyor's art
Viewed for good measure

If you lose his course
You lose your way
To follow his steps
Is to survey

Monuments his paint
Geometry his brush
Landscape his canvas
Creations so lush

Each surveyor dies
Time is unbound
His surveys his fountain
Eternal life found 

Chris

Map/Plat Design Awards for 2019

Engineering Surveys & Services/Chris Wickern

On Behalf of the Missouri Society of Professional Surveyors, Congratulations!

~Looks Like a Plain ol' Survey~

Engineering Surveys & Services recently received awards from the National Society of Professional Surveyors annual Plat Competition. A 3rd Place Award for an airport Property Exhibit Map in the Miscellaneous category and the 1st Place Award in the Cadastral/Boundary category.

One of the highest compliments received was from a Professional Engineer who said the Boundary Survey looks like a “plain” survey. The implied question is; ‘how did something so plain win first place nationally?’

One of the primary purposes of every Boundary Survey is to perpetuate the corners and lines of the United States Public Land Survey System. These surveys established corners and field monuments within the system and form the basis for every description of real property and the rights of owners throughout the State.

The original field work where the corners for this survey were first established was performed in 1821. The surveyors “raised a mound and set post” at the corners they marked. Wildfires and erosion destroyed many of these posts and mounds long before the land was settled. It was left to subsequent surveyors to reestablish the monuments that were lost. These were not always done with care and new monuments for corners were sometimes placed in a different position than the original.

This survey takes a look at the entire survey record for the area. The work involves studying the original 1821 field notes, all of the subsequent surveys over the next 198 years and arriving at a conclusion of where the original corner was actually located in 1821.

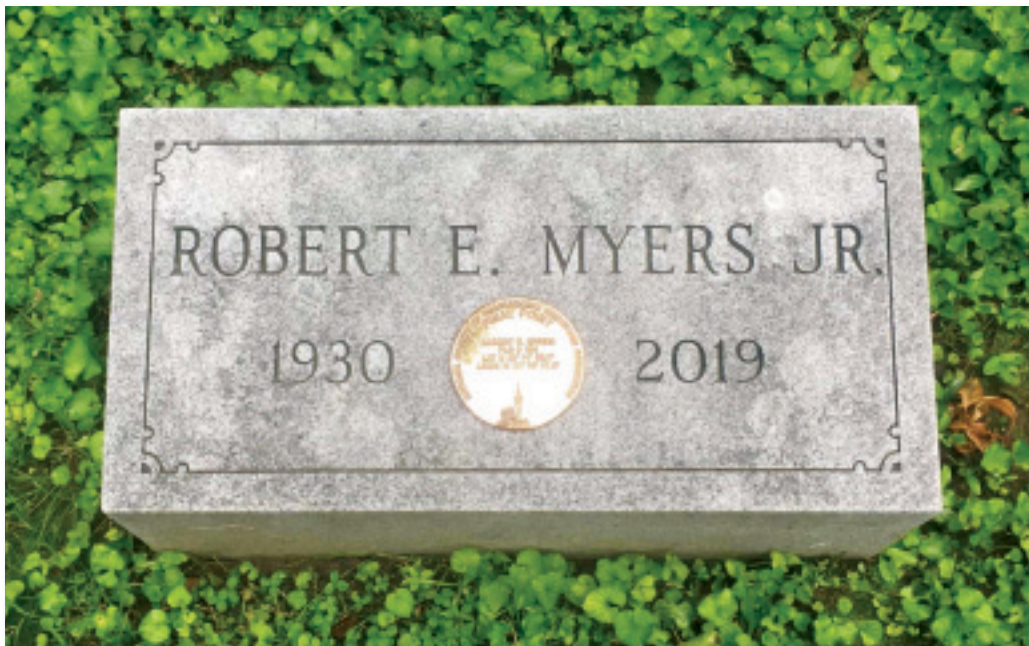
The methods and procedures can be complex. Consideration must be given to the history of federal and state laws in affect at the time of the surveys. The rules and regulations governing the restoration of corners at different times and special knowledge of accepted practices over time. It is an extraordinary work requiring in depth research and great diligence to accomplish.

To the untrained eye, yes, it looks like a “plain” survey with points and lines. To the trained eye, it represents a clear and concise history of the existing corners. It explains how corners destroyed over time have been reestablished. Crucial elements to maintain our stable land system. It may look plain, but a closer look reveals the complexity of how the professional surveyor protects the rights of others.

It is a high praise that someone without the specialized knowledge of a surveyor can look at the survey plat and readily understands the survey results. After all, what good is it, if it cannot be understood by the public we are licensed to protect? The complex made readily understandable is indeed, a very high compliment!



On July 11, 2019 Governor Mike Parson concluded his bill signings for 2019 during a ceremonial session. Among the bills signed by the Governor that day was SB 36 which included MSPS sponsored language (RSMo 442.135) requiring property descriptions include the name of the scrivener. Joining Governor Parson for the signing are (from left to right) MSPS Legislative Committee Chair Jim Anderson, the original House bill sponsor who introduced the legislation, Representative Rob Ross and the Senate bill sponsor, Senator Jeanie Riddle.



Earlier this summer the staff of the Bellefontaine Cemetery Association in St. Louis attached a National Society of Professional Surveyors *Final Point* disk to the headstone of former State Land Surveyor and MSPS Past President Bob Myers. A duplicate disk will be on display along with other memorabilia at the Land Survey Program offices in Rolla.

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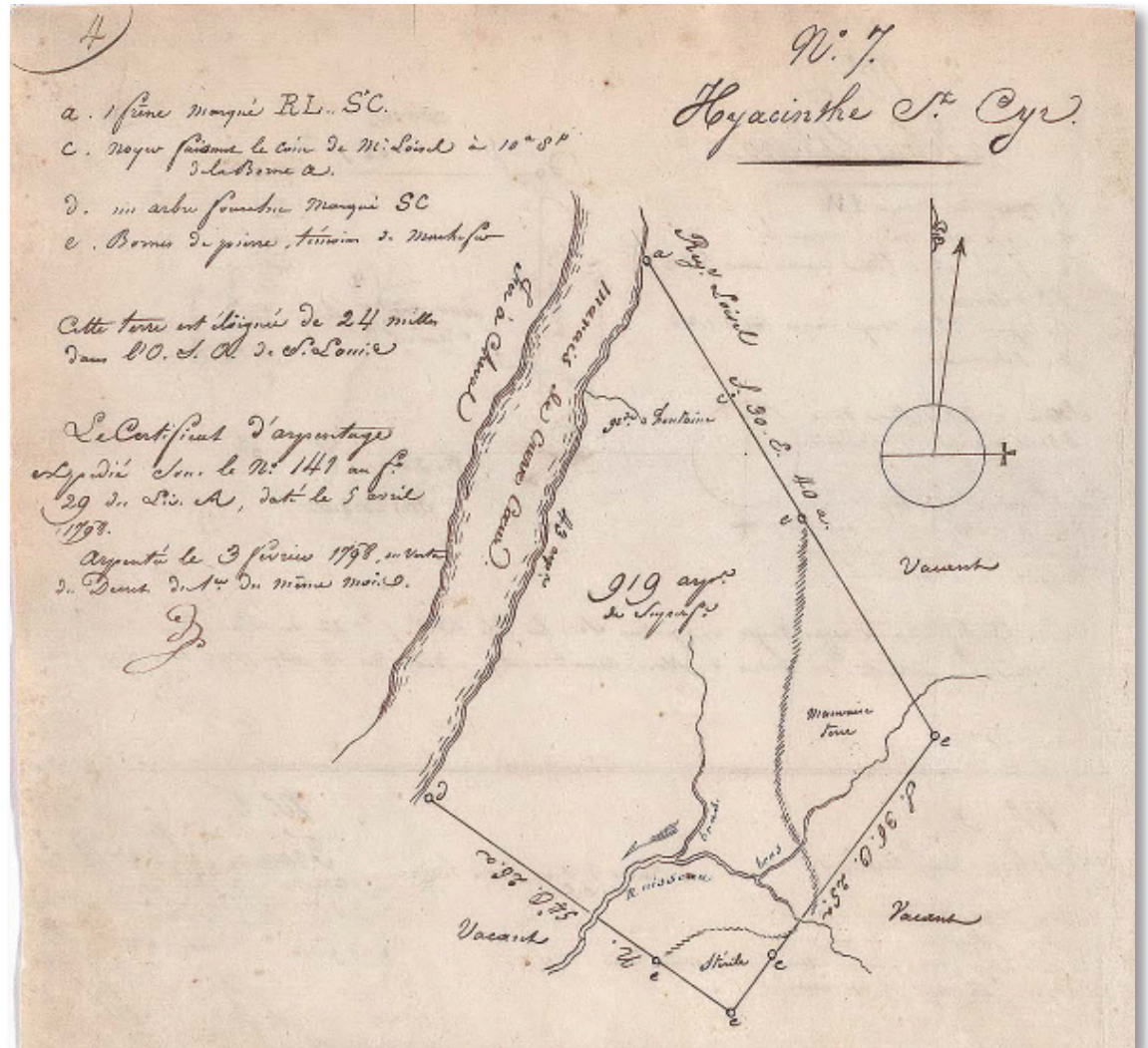
Antoine Soulard: Surveyor General for Upper Louisiana

by Steven E. Weible, PLS, July 2019

Boundary surveys of grants of land in the French Province of Upper Louisiana prior to 1770 were few, often without a plot and without the sanction of public authority. After the Spanish took control of the province, they were not much better in this regard for the first twenty years or so. It was not until 1795 that an official position of surveyor was established. On February 3, 1795, Antoine Soulard was commissioned by Governor General the Baron de Carondelet to the newly created office of Surveyor General for Upper Louisiana (Stoddard, page 248; *Territorial Papers*, Vol. 14, pg 30; ASP:PL, Vol. 6, pg 711).

Soulard organized the office and in the following years appointed deputy surveyors for the districts. As surveys were performed, he collected the field notes, plots and remarks into books, one for each district, marking them with letters of the alphabet, A, B, C, etc. These books were referred to as a "Registre d'Arpentage," meaning Record, or Archive, of Surveys, a Survey Record Book, if you will. This Archive of Surveys was not regarded as an official register of titles, but rather an organized collection of survey information used by Soulard in the execution of his duties (*Territorial Papers*, Vol. 14, pg 30).

After the United States took possession of Upper Louisiana on March 10, 1804, it is presumed that Soulard's role as Surveyor General of the Province was no longer operative. Captain Amos Stoddard, exercising the functions of civil commandant, chose to retain Soulard, however, as the temporary depository of the Survey Archives (*Territorial Papers*, Vol. 13, pg 533 & Vol. 14, pg 32).



This plat of survey of 919 Arpents made for Hyacinthe St. Cyr is an example of the surveys recorded by Soulard prior to March 10, 1804. The survey was performed on February 3, 1795; recorded April 5, 1798. Note that the text is in French.

(continued on next page)

Antoine Soulard (continued)

Upper Louisiana became the district of Louisiana by the act of March 26, 1804, chapter 38, *An Act erecting Louisiana into two territories, and providing for the temporary government thereof* (U.S. Statutes at Large, Vol. 2, pg 283) and was placed under the administration of the Indiana Territory, where William Henry Harrison was Territorial Governor. Section 14 of this act made it unlawful for any person to attempt a new settlement on or to make a boundary survey of the lands of the United States within the limits of the former Province of Louisiana.

The act took effect on October 1, 1804 and on that date Governor Harrison commissioned Antoine Soulard to continue in the capacity of Surveyor General for the district of Louisiana. For those that requested it, Soulard was to continue to survey claims of land that had been conceded by the Spanish government prior to the Treaty of San Ildefonso of October 1, 1800. The fees that the Surveyor General received under the Spanish government were represented as being exorbitant, so Governor Harrison chose to reduce them by one half (*Territorial Papers*, Vol. 13, pg 71, 81). The new fees were as follows:

- two dollars (\$2) for every 100 arpents of surface area
- two dollars (\$2) for each day's travel, when the distance exceeded 12 miles from the seat of justice of the district
- when several tracts were surveyed at one time, the travel expense was to be equally divided among the proprietors
- one dollar (\$1) for each plat and certificate
- one dollar (\$1) for registering the plat and certificate in the Surveyor's Office

The process of examining claims to land was initiated with the act of March 2, 1805, chapter 26, *An act for ascertaining and adjusting the titles and claims to land, within the territory of Orleans, and the district of Louisiana* (U. S. Statutes at Large, Vol. 2, pg 324). Section four of this act directed every person claiming lands by virtue of a French or Spanish grant to file a notice in writing and a plat of survey with the recorder of land titles before March 1, 1806 along with all available written evidence of his claim.

The district of Louisiana was upgraded to the Territory of Louisiana and a territorial government was authorized by the act of March 3, 1805, chapter 31, *An Act further providing for the government of the district of Louisiana* (U.S. Statutes at Large, Vol. 2, pg 331). General James Wilkinson of Maryland was appointed Governor of the Territory on March 11, 1805 and commenced his duties on July 4, 1805 (*Territorial Papers*, Vol. 13, pg 98).

In a letter, dated July 28, 1805, Governor Wilkinson continued Antoine Soulard in the office to which he had been appointed by Governor Harrison and instructed him to have his deputies survey the claims of all persons claiming land under the first and second sections of the Act of March 2, 1805, chapter 26, so that they could file a plat with the recorder of land titles as required by the fourth section of that act (*Territorial Papers*, Vol. 13, pg 175). In November 1805 Governor Wilkinson gave Soulard a list of rules and regulations to govern the conduct of the surveys to be performed (*Territorial Papers*, Vol. 13, pg 437).


(continued on page 10)

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Antoine Soulard (continued)

Governor Wilkinson's Regulations for Surveying, November 2, 1805:

1st - The Surveyor General shall appoint as many Deputies, as may be found necessary, to perform all the surveying, which may be required, within the territory, anterior to the 1st day of March ensuing. --

2nd - The Deputies so appointed, before entering on their duties, shall take the following oath, or affirmation, before a justice of the peace, and shall transmit the same, to the Office of the Secretary of the Territory, viz

"I, A. B., do swear or affirm, that I will diligently & faithfully, to the best of my skill & judgement, perform the duties appertaining to the office of a deputy surveyor; that I will strictly observe all rules, regulations, & instructions, which may be established (or given me) for my government, & that I will not survey, any land, in which I have or hold or expect to have or hold any interest, directly or indirectly."

3rd - All Persons employed as chain carriers, shall be of the age of sixteen or upwards, & anterior to the commencement of their duties, shall take the following oath or affirmation, before the Surveyor General or a Deputy, who are hereby authorized to administer the same viz. - "I, A. B., do swear or affirm, that I will true measurement make, of the tract of Land now to be surveyed, & will faithfully report the same to C. D., my employer." --

4th - The Surveyor General or his Deputies are authorized to survey all such titles & claims to Land, as are recognised by the law of Congress, "for ascertaining & adjusting the same, within this Territory," & they are in all their works carefully to avoid, the interfering of claims & the clashing of Titles.--

5th - In surveying the settlement rights, recognised in the 2nd section of the Act of Congress of the 2nd of March, the improvements are to be left, as near the centre of each survey as possible, & the form of the plot, shall be as nearly square, as the adjacent claims, & the nature of the ground may permit; except when such rights front on Rivers, Lakes, or Bayous, in which cases the ancient regulations of the Country are to be strictly regarded.

6th - Whenever it may happen, that settlements on which Head rights depend, are too much crowded to satisfy the claims of the settlers, by adhering strictly to the forms herein prescribed, The Deputies are to adopt such plan as may be most agreeable, to the parties interested, and most equitable in relation to the Public, & in all cases of conflict, the senior claim is to have the preference of Survey, for which the Surveyor, will be held strictly responsible --

7th - When a Deputy shall have made a survey he shall, without delay, transmit a certified duplicate of his field notes and plat, to the Surveyor General for record.

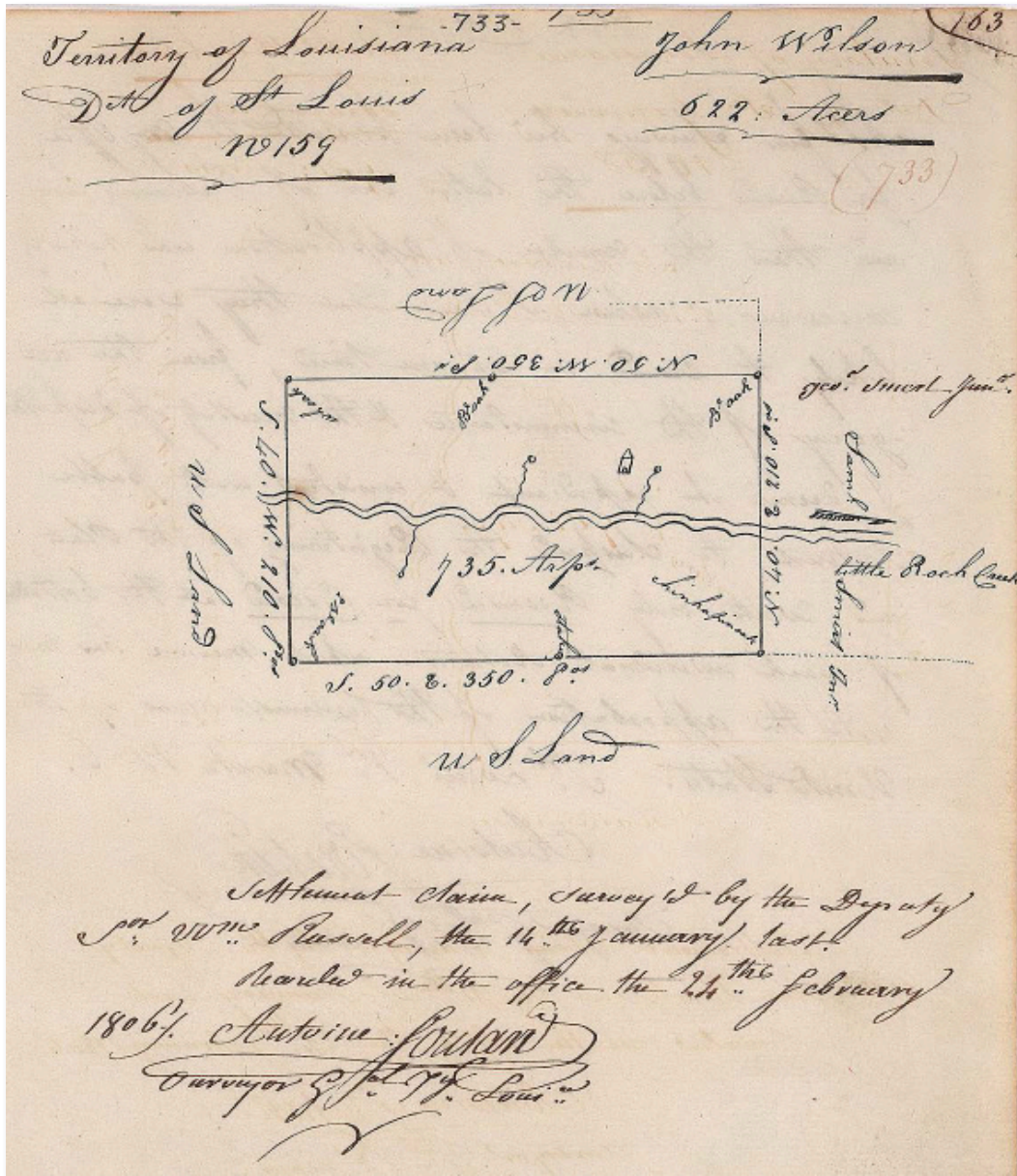
8th - The following shall be the prices to be charged, for the services of the Surveyor & his Deputies. – vizt.

*For the first thousand acres surveyed or any quantity under 2 cents per Acre
For the next five hundred acres 1 1/2 cents per Acre
For all above to 3000 acres 1 cent per Acre
For all above 3000 acres 1/2 cent per Acre
To include all expenses*

Soulard's appointment by Governor Harrison and his continuance by Governor Wilkinson were eventually questioned as having been done without any authority provided by law, since the acts of Congress did not provide for such a position and there was no territorial law that addressed it. In addition, the Secretary of the Treasury, Albert Gallatin, was concerned about the Archive of Surveys that was still in Soulard's custody. Because other Spanish officers had absconded with valuable records, Mr. Gallatin urgently wanted to replace Soulard and to recover the records in his possession (*Territorial Papers*, Vol. 13, pg 432-437).

Congress responded to these and other surveying concerns by passing the act of February 28, 1806, chapter 11, *An Act extending the powers of the Surveyor-general to the territory of Louisiana; and for other purposes* (U.S. Statutes at Large, Vol. 2, pg 352). This act provided for a principal deputy surveyor to reside in the territory of Louisiana and to operate under the superintendence of the surveyor-general of the United States. The principal deputy surveyor was to execute, or cause to be executed by deputies, surveys as may be authorized by law or as requested by the Board of Commissioners. He was also to take possession of all of the records of the Surveyor General of the Spanish Province of Upper Louisiana.

(continued on next page)



This plat of survey of 735 Arpents made for John Wilson is an example of a settlement claim made by virtue of the 2nd section of the Act of March 2, 1805. It is representative of the surveys performed under the November 1805 instructions of Governor James Wilkinson. The survey was performed on January 14, 1806 and was recorded February 24, 1806.

Antoine Soulard *(continued)*

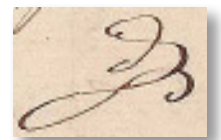
In a letter, dated March 25, 1806, Mr. Gallatin urged Jared Mansfield, Surveyor General of the United States, to immediately appoint a principal deputy surveyor for the Territory of Louisiana. Mr. Gallatin wanted the new appointee to proceed to St. Louis without delay so as to recover the records from Antoine Soulard as soon as possible (*Territorial Papers*, Vol. 13, pg 461). The appointment was not immediate, however, and some time passed before the new principal deputy surveyor was able to assume his duties in St. Louis.

Meanwhile, the work of the Board of Commissioners progressed and it wasn't long before they found evidence of "ante-dating," not only in the concessions, but also in the surveys that had been certified by Antoine Soulard as Surveyor General of the Spanish Province of Upper Louisiana (*Territorial Papers*, Vol. 13, pg 446). By May 2, 1806, Antoine Soulard was in the hot seat, refusing to answer questions pertaining to "ante-dating" or the conduct of the Spanish government (*Territorial Papers*, Vol. 13, pg 533-535; ASP:PL, Vol. 2, pg 559). On May 3, 1806, Governor Wilkinson ordered Soulard to cease operation as Surveyor General of the Territory of Louisiana (ASP:PL, Vol. 8, pg 866). The records in his possession were surrendered to the Board of Commissioners (*Territorial Papers*, Vol. 14, pg 30).

In an effort to redeem himself, Soulard addressed a letter to the Board of Commissioners, dated July 24, 1806, in which he explained why some of the surveys that he certified may not be dated at the time that they were performed. Because of the demand for surveys and the small number of competent surveyors in Upper Louisiana, months or years may pass before a survey could be completed. Once completed, Soulard often dated the surveys as if they had been performed at the time of the petition, concession and order for a boundary survey. This practice was of no concern to the Spanish Government and caused no problems with the final confirmation of title by the appropriate authority in New Orleans (*Territorial Papers*, Vol. 13, pg 534).

Secretary of the Treasury Gallatin, however, wanted to apply a higher standard than existed at the time of execution of the surveys, because he considered the surveys the only available means to be able to detect fraudulently antedated concessions. Without the surveys as a check on the concessions, efforts to detect fraudulent concessions were stymied (*Territorial Papers*, Vol. 13, pg 433 & Vol. 14, pg 71). Mr. Gallatin took a hard-line view that was exemplified in his statement to the President of the United States in a January 1806 correspondence in which he stated that "The Spanish Govt was both despotic & lax, neither respecting individual rights, nor protecting its own. The sooner the inhabitants are taught that our principles are the reverse, the better" (*Territorial Papers*, Vol. 13, pg 383).

So, although Antoine Soulard may have been highly regarded by his peers, his countrymen and successive local leaders for the United States, he was cast out as Surveyor General for the Territory of Louisiana under a cloud of suspicion and the implication of impropriety. 🇺🇸



Soulard's mark.

SOURCES

- Stoddard, Major Amos, *Sketches, Historical and Descriptive, of Louisiana*, 1812
- American State Papers: Public Lands* (ASP:PL)
- The Territorial Papers of the United States*, compiled by Clarence Edwin Carter, 1948
- U. S. Statutes at Large*



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Office with a View!

by Joseph R. Pulliam, PLS

Southeast Missouri was once an expansive swamp full of tall timber, wandering natives and abundant in wildlife. Although the landscape has changed a lot over the years, some native areas still exist and every spring rains flood the fields and do their best to turn back time. This has prompted some folks to refer to our state's Bootheel as "Swamp-East Missouri". Call it what you want, I call it home. As a young boy, most of my time was spent working on my father's farm, tilling the land or storing hay for the coming winter. It was during the winter, when the bugs died down and the waterfowl moved south, that my focus would turn from the green pastures and fertile cropland to the snag filled, duckweed covered lowlands that bordered the St. Francis River. These swampy areas were not worth much, if anything, by way of farmland and definitely not suitable for raising cattle. What they lacked in commodity they made up for in recreation. Yes, these lowlands left abandoned for most of the year suddenly became the hot-spots for social activity during fall hunting seasons.

I can still recall moments of my childhood when sleep would evade me at the thought of the adventure that I would soon undertake. My father and I were duck hunters, and most of his friends took their children duck hunting too. We would get up hours before dawn, make coffee and fry a couple eggs before hurriedly throwing our gear into an old Ford truck and driving through the darkness to Otter Slough Conservation Area in western Stoddard County. It was there in the Lodge that the older men would mingle and laugh over a hot cup of coffee, under a cloud of cigarette smoke. I would admire the stuffed critters all over the walls and ceiling,

and try to repress my excitement so as to at least function properly in this group. After 20 or 30 minutes, the sea of camouflage would come to attention and a conservation agent would announce which groups were hunting, and where. Then all of the sudden it was off to the races.

Boats would be backed into the dark water, trucks and ATV's would fire up and our small army would disperse in all directions seeking their designated spot in that cold cypress swamp. In the hours that followed more



Sun through Cypress and Tupelo Trees, Southeast Missouri

coffee would be drank, more stories (i.e. lies) would be told, hunting knowledge would be passed on from one generation to the next and most importantly quality time would be spent with those most dear. Yes, those were the days where I first fell in love with the swamp. Little did I know that one day my favorite recreational space would become my “office”.



Surveyor Pulliam serving as “Camp Cook” for outing of Southeast Chapter, MSPS

In the late 90’s I went to work for Smith & Company in Poplar Bluff Missouri. It was soon after that I got my first opportunity to work in a swamp, specifically the Coon Island Conservation Area in southern Butler County. I was still green with regards to my duties, but I felt comfortably at home in the briars, sawgrass, buckbrush, and standing water. My employer was tasked with staking line between the Missouri Department of Conservation and an adjoining farmer. Even though I was supposed to be working, I was easily distracted by my surroundings. As fate would have it, years later I would find myself as the surveyor in responsible charge for yet another section of boundary line in that very same swamp. Since then, I have had the wonderful opportunity to survey the lowlands that

once captivated my imagination, only now I look at them differently. They are no longer just a recreational space, but an “office with a view”. The same flora and fauna from youth is still present, only now I find myself looking for historic markers, old fence lines grown into trees, blazed lines and evidence of the meander line from the GLO surveyor. One winter I even had the opportunity to “work” as a camp cook for a group of surveyors from the Southeast Chapter who were enjoying a cold, soggy Saturday.

In the name of progress, and after decades of what some may even call abuse, large expanses of swamp land were drained. The tall, thick, old-growth timber was cleared away and the land leveled to make way for industrialized farms, commercial sites and residential developments. For generations these activities have greatly altered the natural landscape, however recently some conservationists have become proactive in protecting and even restoring these lands in an effort to preserve a way of life for both the animals that call the swamp their home and the humans who enjoy spending time there. These conservationists are made up of federal, state, tribal, local, non-profit and private sector organizations; all of whom have developed programs and provided resources to protect wetlands.

May is “American Wetlands Month”, a time when the Environmental Protection Agency and its partners celebrate the vital importance of wetlands to the nation’s ecological, economic and social health. The United States Department of Agriculture’s Natural Resources Conservation Service (NRCS) is highly involved in this type of restoration activity. Although they are obviously interested in assisting the animals that call the swamp their home, the NRCS is specifically focused on reducing nutrient and sediment load and improving water quality while assisting land owners to restore farmland to its prior state; and in southeast Missouri that means swamps, marshes, and wetlands. The engineers, surveyors, biologists, and other professionals that work for the NRCS are dedicated to making tomorrow a better place, and they recognize the important role that wetlands play towards achieving this goal. This is not just the federal government’s responsibility however, every state in the union takes this topic seriously and has tasked certain agencies with protecting natural areas within their borders. In Missouri we have the Department of Natural Resources (DNR) and the Missouri Department of Conservation (MDC) both of which watch over and protect thousands of acres of public land for future generations to enjoy.

(continued on next page)

Office with a View! (continued)

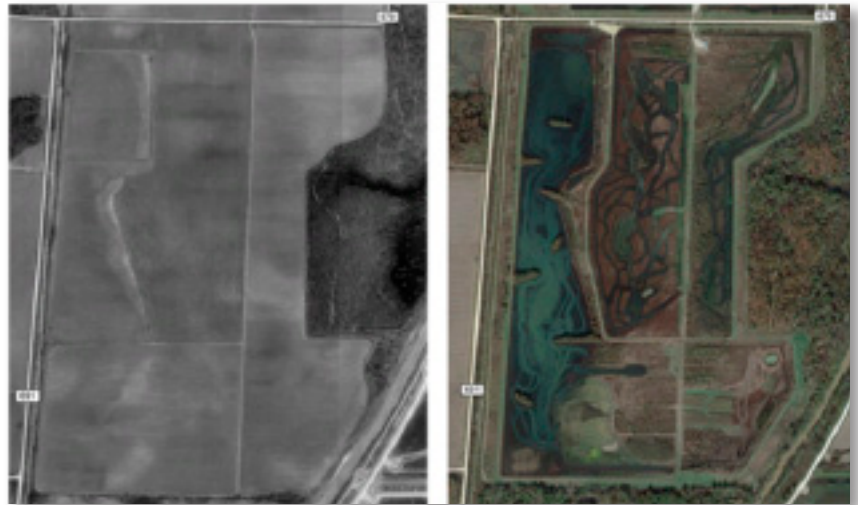


Government entities are not the only ones who want to restore and protect these delicate ecosystems. Groups of dedicated conservationists can join together and accomplish much of the same by using private funds and personal commitment. One such private group advancing this cause is the Legacy Hunting Club whose members and guests share a passion for hunting and swampland preservation. Legacy was founded by Matt Mills, Nathan Maurer and Mark Booker in 2012. Since that time they have restored or protected almost 10,000 acres of swamp land in Missouri, Arkansas and Louisiana. A company representative interviewed for this article stated their long-term goal is to maintain and improve a natural habitat that would increase the number of wildlife for better hunting for generations to come. It's easy to see how groups like Legacy can accomplish so much in so little time by combining their personal resources and capitalizing on each member's desire to achieve a common goal. Although the ultimate goal may be a beautiful hunting paradise, it is their dedication to preservation of these lowlands that brings this to realization.

Although it has been said that great groups can accomplish great things, that doesn't necessarily mean that individuals cannot have a great positive impact. Two such individuals, brothers Bradley and Davis Minton, share the same desire to see swamps, wetlands and glades returned to their natural state. The two brothers, both successful business men, have taken it upon themselves to return privately owned farmland to its natural condition. As businessmen, the brothers realize that existing wetlands are being destroyed yearly by new road construction and other necessary infrastructure activities. As necessary as these projects are, the designers sometimes can't help but

impact wetlands and swamps. Instead of sitting idly by and watching the destruction take place, the brothers chose instead to be proactive and address the matter head on.

Over the years these two brothers have completed several restoration projects, most recently hiring this surveyor to identify the boundaries of the Glade Farm on Moccasin Ridge. Our duties included the gathering of topographic and location data for site design as well as the creation of seven separate tracts of land to be used as a wetland mitigation bank. As with previous restoration projects,



Aerial photos illustrating the impact of wetland restoration near Otter Slough Conservation Area. Prior to restoration photo taken in 1996 (l) and an 'after' restoration image (r) from 2015.

like the Wetland Bank shown in the before-and-after photographs (above) taken near Otter Slough Conservation Area, the areas are intentionally returned to their natural state. Trees are planted, open waterways and marshes are created, and levees are constructed, all with intention to design so as to allow flooding to happen naturally while protecting the site from potentially contaminated farm runoff. The wetland mitigation bank accomplishes three things: It restores the land to its natural state, assists necessary infrastructure projects to continue as scheduled, and provides a safe place for wetland creatures to live undisturbed.

(continued on page 18)



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Office with a View! (continued)

Government agencies, individuals and groups all require the assistance of a surveyor to achieve their goals. This is where we step in. We provide our services in what can only be described as the most remote of remote settings. It goes without saying that surveying in these environments can be difficult at best. High water alone is problematic to wade through,

however murky water combined with submerged obstacles takes danger to a whole new level. I recall one such instance, when my rodman broke his ankle. We had almost completed a traverse of a little over one mile when the incident occurred. My rodman had just set the forward tripod up on a nearby levee road and was

returning to the rear tripod while I made the appropriate measurements. While walking through the murky water his foot slipped off in a hole and he fell. I helped him to the truck and we quickly realized it was bad. I told him I would return to get the remaining equipment and we would go to the emergency room. Much to my surprise he insisted that he be allowed to sit on the tailgate and run the total station while I grabbed a rod and finished the day's work. Now if that's not the definition of dedication, then I don't know what is.

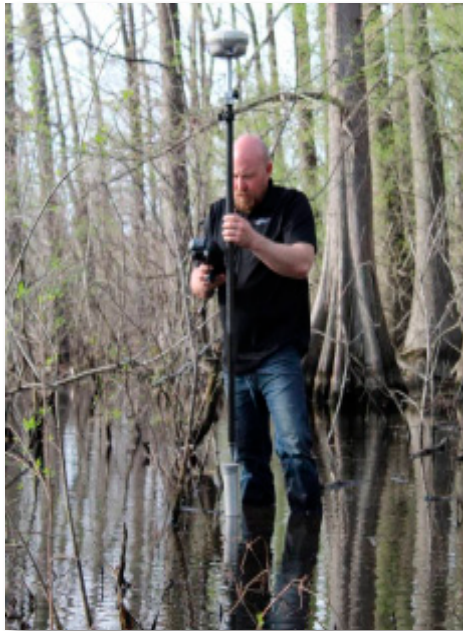
Swamps, marshes and wetlands present much of the same plant life and animal habitat found in upland forests and overgrown fence rows. That means you still have to deal with briars, ticks, poisonous plants, critters, bugs, chiggers, etc. ...all while trying not to drown or break your leg. With all these distractions focusing your attention on the job at hand can be difficult. Corners are often submerged and it is not uncommon that a surveyor ends up blindly

groping about with feet and hands in a vain attempt to feel-out the submerged marker.

Remember, magnetic detectors are expensive and I have found that most don't necessarily like being submerged. Forget stones, the early surveyor often carried just the necessities with him when he entered the swamp. Posts and blazed lines help a lot with recovery because they can readily be seen even during high water conditions. Installing new corners and staking line, as seen below, can often be done without a hammer or shovel as lathes and rebar can easily be shoved into the muck by hand. GPS has definitely helped address the line of sight issues common with traversing, but for those surveyors who are not yet equipped with a "magic stick" unique ways of traversing need be utilized. For instance, driving a nail in a cutoff tree stump or using 3/8 rebar or hotwire fence post as traverse points.

Survey issues that are often "exceptions to the rule" in certain corners of the state, like GLO meander lines along waterways, suddenly become more mainstream when surveying in the swamp. Recently in southern Dunklin County, the site we were hired to survey was a previously submerged portion of a section that fell within the now drained bed of Little River.

Little River was meandered at the time the unsubmerged portion of said section was first surveyed in 1847, with the submerged portion thereof being subdivided later (1857).



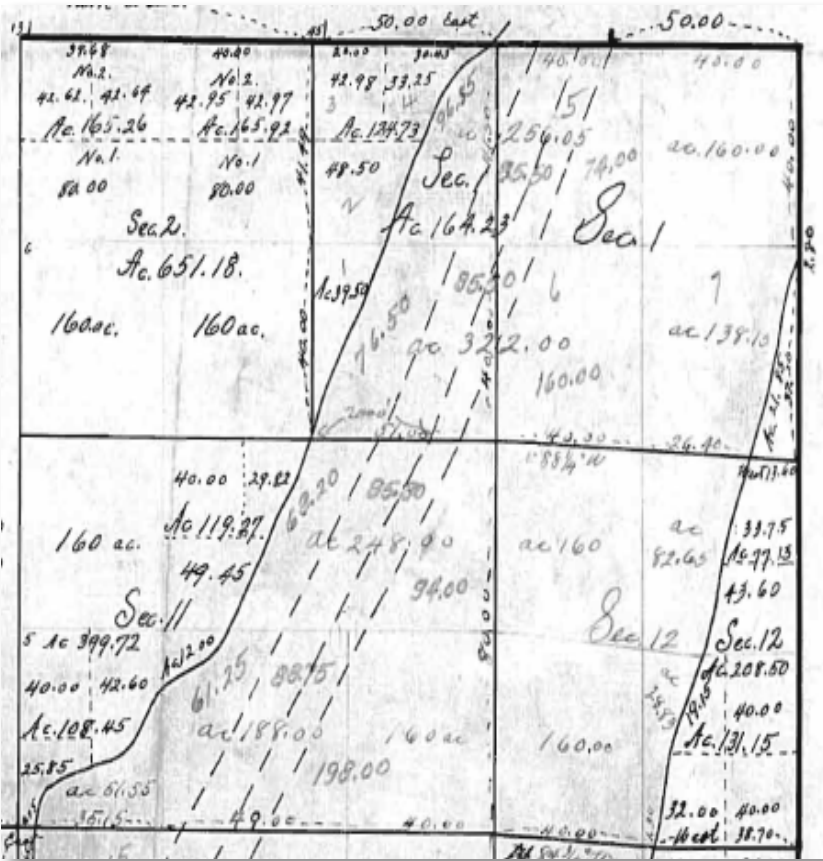
Surveyor Pulliam locating monument using RTK Rover



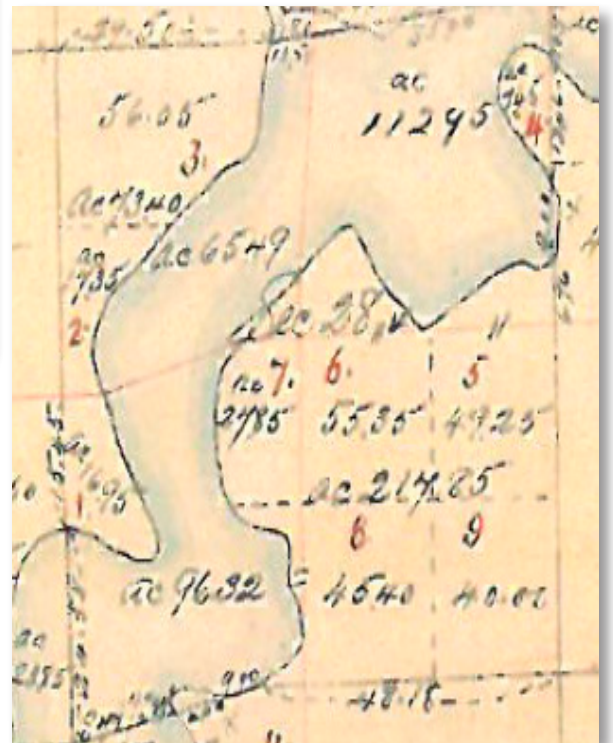
Smith & Company Crew Chief Bryan Carnahan exits a flooded swamp in southern Dunklin County.

Now we are all aware that the meanders aren't necessarily always in the exact same place as the actual riparian boundary, however our research found that in this instance the meanders were recited call-for-call as the right of way line of a local drainage district formed within the originally unsubmerged portion of said section. Those meanders now form the right of way line of the local drainage district as well as property boundaries of tracts described as "lying west of the west right of way line of said ditch", or within the previously submerged portion of said section.

In addition to meanders you have irregular sections with non-standard subdivisions. Specifically lotted and/or elongated sections that do their best to address the error between originally submerged and originally unsubmerged boundaries. For instance, T17N R9E and T18N R10E contain certain sections that are 1-1/2 mile in length (east and west). You also have sections where the often debated center of section is not located on a straight line between opposing quarter corners, as is the case in Section 28 (T21N, R12E).



GLO Plat , Sections 1, 2, 11 and 12 (T17N R9E) Note elongated size of Sections 1 and 11 compared to 2 and 12



Center of Section 28, T21N, R12E, note deflection between opposite 114 corners (apology for photo quality)

(continued on page 22)

Nominees for 2019-2020 Officers



President – Susanne Daniel

Susanne is co-owner of Daniel Surveying in Ava, Missouri and an adjunct instructor at Missouri State University. She has over 25 years of experience in surveying and earned her professional surveying license in 2001. Susanne has studied chemistry and mathematics at Missouri State University and holds a B. S. in Geology degree. She enjoys

volleyball, playing flute in her church orchestra and volunteering in lawn care and construction ministries. Susanne is a member of the Ava Chamber of Commerce Economic Development Committee and her husband, Andy, serves as Douglas County Surveyor. “It is an honor to serve the Society and I remain committed to promoting and advancing our profession”.

President-Elect – Earl Graham

Earl is the Director of Surveying for Grimes Consulting, Inc., in South St. Louis County. He was licensed in Missouri in 1988 and over his more than 35-year surveying career has earned licenses in five adjoining states as well as Colorado. Beginning with transit and chain methods, Earl has experienced the implementation of the modern EDM, the Electronic Theodolite, the Data Collector, the Total Station, GPS, and VRS networks. Today he leads a surveying department that serves dozens of major commercial and industrial clients and leads surveying efforts for developments across the region. Earl’s diverse background includes surveys of large sectional tracts for mining and timber in St. Francois, Madison, Iron, St. Genevieve, and Washington counties, as well as urban surveys throughout Northern Jefferson County, St. Louis County, the City of St. Louis and across the Midwest, including a strong background in urban redevelopment. Earl earned an Associate of Science degree from Mineral Area College and currently resides in Park Hills. He is the current chairman of MSPS State Government Liaison Committee and has twice served as the director of MSPS (MARLS) three different times.



Vice President – Bradley McCloud

Bradley McCloud is the Secretary-Treasurer for the Missouri Society of Professional Surveyors. He is currently working on obtaining his Alabama surveying license and starting his own surveying business. He previously worked for Missouri Department of Conservation where he was responsible for the land boundary and engineering survey programs. Prior to this Brad was the

Land Survey Coordinator/Photogrammetry Manager for Missouri Department of Transportation. While in this role he served as the department’s expert for photogrammetric compilation and mapping as well as represented the department to state board of registration, surveyors’ society, and state land surveyor’s office. Also, while in this role he was part of the MODOT VRS network implementation team. During his career he has worked on a vast array of surveys including boundary, highway corridor, photogrammetry, LiDAR, engineering, hydrology, and caves.

Secretary-Treasurer – Ron Heimbaugh

Ron Heimbaugh is the Missouri State Land Surveyor and the Director of the Department of Agriculture’s Land Survey Program. He earned a Bachelor of Science degree in Industrial Technology from the College of the Ozarks in 1990 and later completed surveying coursework at the University of Missouri - Rolla (Now known as Missouri University of Science and Technology). He has nearly 30 years of surveying experience between the private sector and state government. Ron began his surveying career in 1990 and was employed with Rolla area civil engineering and land surveying firms for 17 years. During this time he was involved in every facet of the surveying profession. In 2008, he accepted a position as a project surveyor with the Land Survey Program. Then, in 2013, he became the Field Surveys Section Chief and was promoted to State Land Surveyor and Director of the Land Survey Program in 2017. Ron is currently a member of the Missouri Society of Professional Surveyors Board of Directors, the Missouri Society of Professional Surveyors Standards Committee, and the Rolla Technical Institute Advisory Board.



Secretary-Treasurer – Ray Riggs

Ray Riggs is a fifth generation resident of Howell County, Missouri and a first generation land surveyor. He attended rural elementary school in Howell County and graduated from the West Plains High School in 1982. Ray has worked within the surveying profession since graduating from high school; as a rodman, instrument man and crew chief. He has been a Project Manager and Project Surveyor with Riggs & Associates, Inc. since 1989 and beginning in 2018 has served as Survey Vice-President of Florabama Geospatial Solutions. Beginning in 1999 and continuing until 2001, Ray completed the required coursework for licensure as a Professional Land Surveyor in Missouri. These courses were completed by distance learning from the University of Wyoming and the University of Maine. He obtained his Missouri Professional Land Surveyor’s license in 2003, his Oklahoma license in 2005 and his Mississippi license in 2011. Ray has been a member of the Missouri Society of Professional Surveyors for many years, has served on committees and has submitted several humorous articles to the Missouri Surveyor. In 2007, Ray was appointed to serve on the Land Survey Advisory Committee and continued until the committee was dissolved in 2012. In 2019, Ray began serving his local community as a member of the Howell County University of Missouri Extension Council. Ray is an active member of the Junction Hill Pentecostal Church, is an ordained minister within the Ozarks Pentecostal Holiness Fellowship and has been the Youth Leader of this fellowship for almost three decades. Ray has been happily married to Tami for over 30 years and they have a married daughter, Tabitha. Ray enjoys reading, local history research, spending time with family, traveling and writing on his blog, bigsurveyor.blogspot.com. However, Rays most important task is serving as “Pawpaw” to his grandchildren, Lucas and Liam!

Nominees for 2019-2020 Board of Directors



Jonathan Cole

Jon is the primary owner of Merebrook LLC Land Surveying, a small survey-only start-up in Columbia. He earned an Associate Degree in Electrical Engineering from a college in Connecticut, graduating in 1986. He started his surveying career in the mountains in Avon, Colorado, in 1997, doing a broad range of surveying and becoming a party chief. In April of

200 he moved to Fort Collins, CO and worked primarily doing boundary work for the former County Surveyor in Windsor, CO. Ithaca, NY was his next stop, work in a non-PLSS state and eventually running the Survey Department of a large multi-disciplinary architecture/engineering company in Binghamton, NY, for five years. Finally moving to Columbia, Jon worked for a local surveyor, took the required classes for licensure and passed the exam in 2010. With work being slow, and opportunities even slower with the bad economy at the time, he took the opportunity to go back to school and earned a Bachelor of Arts Degree in Geography with a specialization in GIS from the University of Missouri – Columbia, graduating in 2014. With few local job prospects at the time, Jon decided to work toward achieving a long-term goal of owning the company he worked for and, with the help of some well-established surveyors, started his own company. Merebrook LLC was incorporated and licensed in 2014, establishing roots in the community.

Jon's has broad experience both professionally and geographically. His survey experience includes numerous small projects, but also bridges, road, large subdivisions, multi-million dollar homes, college campuses and a hospital, and extensive boundary work in Colorado, New York and Missouri.

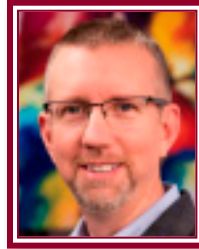
In his off time, Jon has toured 43 states, so far, hiked the Appalachian Trail from Georgia to Maine and still enjoys the occasional good book. He is also a licensed amateur radio operator (N00FJ) and the Treasurer and an active member of both the Boone County Amateur Radio Emergency Service and the Central Missouri Radio Association.

Stephen Dickson

Stephen Dickson is the current Survey Superintendent for the Missouri Department of Conservation. He oversees all land boundary and engineering survey projects for the agencies 1.2 million acres of owned and leased ground. It was a high school vo-tech teacher who was responsible for introducing Stephen to surveying. It was then, he knew surveying was going to be the career for him. Stephen has over 30 years' experience in the surveying and mapping profession. His career began in 1988 employed in the private sector as a chainman eventually working his way to Party Chief. From this point, he followed his career into public service with the Missouri Department of Transportation. Stephen's diverse background in surveying would include; the honor of a being on a team that first discovered, then had the privilege of surveying and of naming a cave, boundary surveys, highway corridor, sub-division layout, construction



staking, LiDAR, hydraulic and bathymetric surveys. Stephen is committed to continual advancements in the field and sharing knowledge with the up and coming survey professional. Stephen and his wife reside in the Jefferson City area, in his free time he can be found working in the yard, tinkering on old vehicles and spending time with his grandchildren.



Jeremy Powell

Jeremy is a Professional Land Surveyor, licensed in Kansas and Missouri. In 2011 he received his Certified Federal Surveyors (CFedS) certification from the U.S. Bureau of Land Management. He also holds an Envision Sustainability Professional (ENV SP) certification and a FAA sUAS Remote Pilot license. As the V.P. of Operations for Powell CWM, Inc. he is the go-to person

for his unique ability to effectively communicate across a diverse group of clients and staff. He manages Powell CWM's operations to ensure successful delivery of all work under contract in a proficient manner. He is adept at being responsive and sensitive to stakeholders, focusing intently on meeting budgetary and schedule requirements. Jeremy appreciates the opportunity to serve on the MSPS Board of Directors and looks forward to giving back to the land surveying profession.

Monnie Sears

Monnie obtained his Missouri surveying license in 1991. He is also licensed in Oklahoma, Arkansas and Kansas. He is a Certified Floodplain Manager (CFM) and a Certified Federal Surveyor (CFedS). Monnie began his career as a draftsman in 1978 after two years of Vo-Tech training. He has managed the Survey Department at Allgeier, Martin and Associates in Joplin, Missouri since 2002. During this time he also served as Interim City Surveyor for the City of Joplin from August of 2006 through June of 2008. In December of 2010, Monnie was appointed to the position of Floodplain Manager for the City of Anderson, Missouri. Association memberships include the Missouri Society of Professional Surveyors (MSPS), the National Society of Professional Surveyors (NSPS), the Missouri Floodplain & Stormwater Managers Association (MfSMA) and the Association of State Floodplain Managers (ASFPM). Monnie is a charter member of the Southwest Chapter of MSPS and has served on the Education Committee since the Chapter was founded in 2006. The Education Committee hosted its 13th annual continuing education seminar this year. He has served as chapter president and is currently serving as a President Elect. He has been a member of the Anderson Planning and Zoning Board for 14 years and has previously served 16 years on the City Council. He is an ordained minister, teaches Wednesday night Bible study and is the Director of Bible Warehouse. He has made five mission trips to Zambia for the purpose of training ministers. Monnie Lives in the small town of Anderson with his wife, Joanna. They have two daughters and their families living close by. His reason for seeking a seat on the MSPS Board of Directors is to represent the interests of and be a primary spokesman for the surveying profession in Missouri.

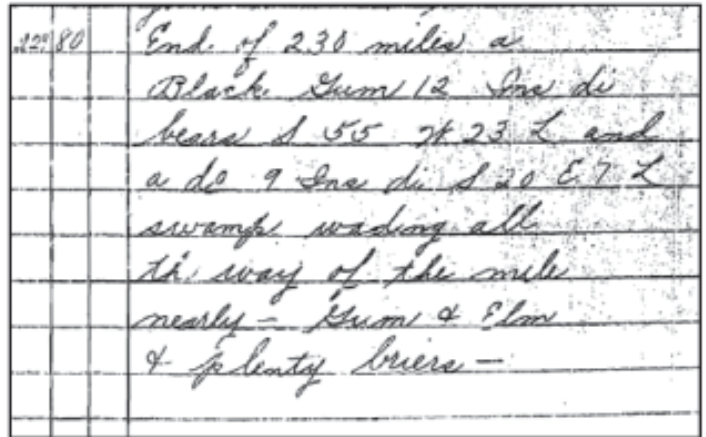


Office with a View! (continued)

We surveyors have never been shy about going places most others wouldn't, and site inaccessibility definitely isn't a modern problem. A quick review of the original field notes in certain townships where submerged lands were present gives us an understanding of what those early surveys experienced. In the cold of December 1823, while surveying the south boundary line of our great state, famed surveyor Joseph C. Brown made multiple entries into his field notes of the lands being covered by both water and briars.

I was once told that Land Surveying chooses you, not the other way around. Twenty years in and I would have to agree. Although I still have a lot left to learn, I have noticed that surveyors love spending time in the great outdoors. Yes, it just so happens that we have found a career making the great outdoors into our office... most definitely an office with a view. My advice, for what it's worth, is this: Don't pass up on that survey because the site is rough, or tough to access. Don't pass up on that client who asks you to go somewhere they themselves are not willing to go. Our efforts combined with others who share our passion are all that stand in the way of father time. Perhaps with some diligence and dedication, and a little help from those conservationists I mentioned earlier, I will one day be able to pass my office along to the next generation. Hopefully they too will enjoy the view.

Surveyor Joseph R. Pulliam is an Employee/Owner, Director and Asst. Survey Department Manager with S.H. Smith & Company, Inc. headquartered in Poplar Bluff, Missouri. Since 2013 he has served as the Stoddard County Surveyor, and since 2019 he was served as the Interim Stoddard County Floodplain Manager. He is registered as a Professional Land Surveyor in Missouri and Arkansas and also as a Certified Floodplain Manager through the ASFPM. Stoddard County includes two of the larger natural swamps in Southeast Missouri. Joe is highly involved with the SEMO Chapter of the MSPS having served the chapter as their president on multiple occasions. 🇺🇸



Excerpt of Jos. C. Brown field notes of survey along South boundary of the state of Missouri. Note: "wading all the way" and "plenty briars"



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Seiler Instrument Announces Asset Purchase Agreement to Acquire Midwest Survey Supply and Michigan Surveyors Supply

May 13th 2019, STL- Seiler Instrument & Manufacturing Company Inc. acquired the assets of Midwest Survey Supply and Michigan Surveyors Supply operations in Detroit and Lansing, Michigan. The offices in Detroit and Lansing will add to the existing geospatial offices Seiler operates in St. Louis, Kansas City, Omaha, Milwaukee and Indianapolis.

The Seiler family is excited for the opportunity to invest and build upon the solid Trimble Survey & Mapping business and the relationships established by Jim Driftmyer, previous owner of Midwest Survey Supply, and Ted Muns, sales and general manager with the sales and support team in Michigan.

Tom Seiler, executive vice president, along with Jim Driftmyer, have worked hard to ensure a smooth transition of the Michigan Surveyors Supply team for customers and staff. Per Jim Driftmyer, “Both companies and families have benefited and achieved success through our legacies of hard work, honest and ethical treatment of our customers and employees.” Ted Muns will continue to lead the team in Michigan as key account and business development for Trimble Geospatial sales along with Michael O’Grady, survey manager of Seiler Geospatial.

Seiler Geospatial will be adding employees to the Michigan industry solutions team with survey and mapping GIS sales domain experts. Seiler plans to feature Trimble Geospatial surveying equipment and software, along with innovative indoor and outdoor vehicle-mounted mobile mapping, and 3D spatial imaging systems. Additional innovative industry offerings will be added by the Seiler Design Solutions business segment including; Autodesk AEC software, drone and mobile mapping solutions from manufacturers such as; DJI, Microdrones, Delair and GeoSLAM.

Seiler has provided high quality and value-add solutions to customers for over 30 years with premier world class USA



based public companies including; Trimble Geospatial and Construction as an Authorized Distribution Partner and Autodesk AEC Software Gold Partner. Per Tom Seiler, “We are grateful for the opportunity to continue growing the Seiler Geospatial team in Michigan and leveraging our deep Trimble survey and mapping/GIS domain knowledge to provide the excellent solutions and services that our customers and organizations deserve and expect. Our goal is to be more than just a vendor; our goal is to be our customers most trusted and valued partner in helping grow their business.”

Seiler Instrument Geospatial operates much like Michigan Surveyors Supply, with an emphasis on customer satisfaction by reliably delivering transformational Trimble Geospatial productivity solutions, and excellent repair and customer service. Seiler Instrument & Manufacturing Company Inc. is a closely held 4th generation family business and will be celebrating its 75th anniversary in 2020. Seiler is involved in four diverse business areas, including aerospace and defense manufacturing, Trimble Geospatial solutions and Autodesk CAD solutions, medical microscope solutions and planetarium and projector solutions from ZEISS and Seiler. Contact via email at: solutions@seilerinst.com or toll free: 888-263-8918. 🇺🇸



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Apparent Right of Way

by *Chris Wickern, PLS*

You have been commissioned to survey the SW 1/4 of the NE 1/4 of a rural Section, Township and Range. There is an existing county road on the north and another on the west. You've been to the Records Office, researched the Land Survey Program and contacted a local title company. There is nothing in the research indicating how the county roads were established and described. You visit with the County Commissioners and Clerk for the Circuit Court where you hear; "Oh no, we don't have anything like that out there."

The road exists! We can see it and the improvements for drainage ways with fences on both sides. We also know that rights of way and roads must be described and dedicated. So how do these roads exist with no dedication or rights of way? Maybe the answer is a prescriptive easement; it has been there forever, people have used it for years and years and it meets all of the requirements of how prescriptive easements are created.



Do surveyors have the authority to state a "prescriptive easement" exists? The answer to that is a resounding no. We can recognize the conditions and know that one may exist. However, that would be determining rights and interests of real property. We don't have that authority. The determination of rights and interests rests with the courts. We place those described rights and interests on the ground. It's a little like adverse possession. We can see the conditions exist but the courts are the ones with authority to make the determination.

Our survey problem remains, there is no dedication formally established for the road and no dedication describing the roads rights of way. Typically, we will find previous surveys showing the “boundary” line going to the land line with a monument set on an offset. Placing the monument at the edge of the road’s improvements, the limits of a drainage way or a fence line, or improvement defining a line between the roadway and the land owner. These offsets are often labeled, “apparent right of way”.

The issue of how these roads were established and what are the rights of way remains. As surveyors, we are the ones licensed to protect the public and we must know “the relevant requirements of law”... “that affect real property rights on, under or above the land.”

Our answers are found in the Revised Statutes of the State of Missouri. Section 228.010 tells us “how” these roads were established. It states, The words established and establishing, as used in sections 228.010 to 228.190 in relation to public roads, shall be held to embrace the locating, relocating, changing or widening of roads, and the word “road” shall include bridges and culverts. Section 228.190, “Roads legally established... 1. All roads in this state that have been established by any order of the county commission, and have been used as public highways for a period of ten years or more, shall be deemed legally established public roads; and all roads that have been used as such by the public for ten years continuously, and upon which there shall have been expended public money or labor for such period, shall be deemed legally established roads;

This takes care of the “no dedication” establishing the road. Sections 228.010 & 228.190 define for us what an established road is and when it lawfully exists.

Now that we know these roads are established by operations of law, how wide is it? This too is recognized in State law. Section 229.010 states, “Roads to be thirty feet wide. All public roads in this state which hereafter may be established shall not be less than thirty feet in width. No less than thirty feet in width is interesting language and more than a little vague.

We don’t like vague, but this language is important. It allows these roads with no *formal* dedication, to expand or contract for drainage areas, embankments and improvements. There is nearly always a clearly defined line demonstrating what the land owners are maintaining and what the county is maintaining. All are indicators of what the land owners and the county have accepted, but cannot be less than thirty feet. Exceptions to than thirty are found in Chapter 229, but we would rarely see them.

This does not resolve all the issues pertaining to the roadway. The question of ownership of the land where the road is established remains. Is the established road and its improvements a taking transferring ownership to the county? Or, does the road and improvements define the sidelines of an easement? The answers to those questions might be found in the endnotes that follow the referenced Sections of our laws.* They cite many court cases and other operations of law.

How these apply to the issues you are facing for the survey you are working on is a decision you must reach. You are the professional licensed to protect the public. 🇺🇸

*Missouri Revised Statutes are available at:

<http://revisor.mo.gov/main/Home.aspx>

Revisor of Statutes
State of Missouri



NEWS & VIEWS

National Society of Professional Surveyors

NSPS changes representation on TMAC

NSPS, August 7, 2019

FEMA's Technical Mapping Advisory Council (TMAC) met last week in Arlington, VA. During the two-day meeting, TMAC members conducted a final review and discussion of the TMAC 2018 Annual Report and voted to submit it to FEMA. The TMAC also received public input on the report recommendations and content, including by NSPS Federal Lobbyist John "JB" Byrd. NSPS member Jim Nadeau was appointed earlier this year to the FEMA TMAC for a three-year term and is pictured (on the right side of the photo) with TMAC Chairman Jeff Sparrow and former NSPS representative to TMAC Wendy Lathrop.



Senate panel moves Highway Bill after hearing from NSPS

NSPS, July 31, 2019

The Senate Committee on Environment and Public Works this week introduced and reported the 2020 Highway Bill to the Senate floor on a bipartisan 21-0 vote. The "America's Transportation Infrastructure Act of 2019" includes Section 1304 for Intelligent Transportation Systems, Section 1308 for Geomatic Data, Section 1522 for a Permeable Pavements Study, and Section 3005 for research and technology development and deployment. NSPS wrote Senator John Barrasso (R-WY), the keynote speaker at the NSPS Day on the Hill breakfast in April, commending him and the committee for the bipartisan effort that will require the collection of surveying data and utilize the expertise of the surveying profession. The NSPS letter was entered in to the committee's record with other organizations in support of the panel's progress before the September 2020 deadline for the existing highway bill.

Response to Question about 'Updates/Re-certifications' of ALTA/NSPS Land Title Surveys

Gary Kent, Chair of the Joint ALTA/NSPS Review Committee, July 31, 2019

As Chair of the ALTA/NSPS committees for both NSPS and ALTA, I would suggest that there is no such thing as a "recertification" or an "update." Any time we represent that a survey has been updated or recertified, it is essentially a new survey because we are representing that we are showing the current conditions on the property. You have done the survey before, so it may cost less and you may be able to turn it around quicker; However, there is nothing in any of my "updated" surveys that identifies the survey as an update or re-certification, except a reference in the Surveyor's Report that "This survey is based in part on the [previous survey]". I identify the previous survey by certification date, job number, and recording information (since the earlier one should, in almost all cases, have been recorded).

Having said all of that, you need to be aware that clients (probably prodded by lenders) like to call these "re-certifications" and/or "updates" – usually by saying that they "only need an update or recertification". Why? Because that implies that it should not cost much!

Keep in mind that there are no innocent requests for re-certifications or updates. There is also no innocent request, such as “I have an old copy of this survey or yours, but I can’t read it very well. Can you send me a new copy?” What is happening is that they are going to use the survey in a new conveyance, and you are likely to be taking on new liability to the new lender, title company, and buyer/owner – even if you only gave them a new copy!

So, my suggestion is to tell people who want a re-certification something like, “So, what you are asking for is a new Land Title Survey; I will provide a quote. What Table A items do you need?” They will say, “No, I only need an update [or re-certification].” I would say “Yes, I understand that, but an update or recertification says that I am showing the current conditions under the current standards, so I cannot just change the date. I have to confirm the results of the previous survey, review new title work, confirm that the monuments are still in place, and make sure all of the current conditions are reflected on the survey.”

They will say “But, nothing has changed.” I would say, “Are you familiar with all of the requirements in the 8 pages of the standards? There is a lot that we need to check.”

Don’t let them BS you, and make sure you treat this as a new survey for which you are properly compensated! 🇺🇸

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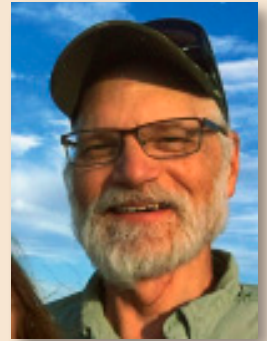
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Announcements

Daniel Martin Ehlmann, Missouri PLS #2215

Daniel Martin Ehlmann, aged 63, *Asleep in Jesus* on Monday, August 12, 2019.

Beloved husband of Sherrie Ehlmann (nee Burlison) for 36 years; cherished father of Melissa (Grant) Goforth, Andrew Ehlmann, Ryan Ehlmann and Aaron Ehlmann; loving PaPa of Jenna, Khloe, Olivia and Sydney; dear brother of Gerald (Pat) Ehlmann, Joyce (Robert) Kantz and DeAnn (Walter) Els. Daniel was preceded in death by his parents Marlan and Virginia Ehlmann (nee RichterKessing). He was a loving uncle, cousin and friend.



Daniel was an avid trout fisherman and a member of the Ozark Fly Fishers, Inc. He was a member of the Zion Lutheran Harvester Church and worked for Stock and Associates, in Chesterfield, as the Vice President of the Land Survey Department.

The family received friends on August 15, 2019 followed by a memorial service on August 16 at Hutchens-Stygar Funeral Home. Memorial contributions have been suggested to Reel Recovery.

Steve Houk, Missouri PLS #2120

Steve Houk, age 65, passed away on Saturday June 22, 2019, at his home following a courageous battle with Myotonic Muscular Dystrophy. Steve was born on November 25, 1953 in the Army Hospital at Ft. Crowder near Neosho, Missouri.



Steve grew up in the Tipton Ford area and graduated from Neosho High School in 1971. Upon graduation he was awarded a full track scholarship to the University of Arkansas. He graduated with a Bachelor's of Science Degree in Education and an Associate's Degree of Science in Surveying. Steve married Pam Robertson on March 16, 1987. They made their home on a farm north of Neosho where they loved to raise horses, garden and enjoy the peace that country life provided. He was active in Newton County 4-H, and watching numerous sports activities that his daughter and grandchildren were involved in.

Mr. Houk worked 20 years for Allgeier Martin & Associates as a land surveyor. He was licensed in four states. He finished his career at the Newton County Assessor's office, retiring in 2015. Steve was a Christian and a member of Central Christian Center. He served several years as a Deacon. He had a kind, gentle spirit; he championed fairness. He was a wonderful husband, father, grandfather and friend. He will be greatly missed.



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William Douglas McFarland, Missouri PLS #1983

Doug McFarland passed away on July 8, 2019 at Fredericktown at the age of 75 years. Born February 14, 1944 at Ironton, Missouri the son of William Henry and Betty Lee (Roberts) McFarland, Doug was the Madison County Surveyor for over 30 years. Preceded in death by his parents, Mr. McFarland is survived by his daughter Sarah (Mark) DeSpain, his brother Mike (Marilyn) McFarland, and grandson Aiden DeSpain.

Doug was of the Methodist Faith. An enthusiastic sportsman, McFarland enjoyed playing pool, bowling, cheering for the St. Louis Cardinals and following NCAA basketball. Doug was one of the A&M Restaurant (Fredericktown) regulars.

A memorial service and visitation were held on July 12, 2019 at Follis & Sons Chapel in Fredericktown.



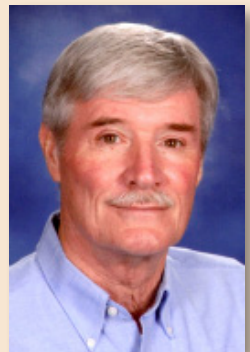
Nils Ranum, Missouri PLS #1736

On May 23, 2019, God took Nils Roger Ranum by the hand and walked with him peacefully into eternity.

Born June 20, 1944, in Joplin, Missouri, Nils lived in Joplin his entire life. Having attended Joplin Junior College, he graduated from the University of Missouri-Columbia in 1969 with a degree in civil engineering. He then enlisted in the United States Army, serving in Vietnam during 1969-1970 with the 159th Engineer Group. In 1974 he graduated from Missouri Southern State University with a business degree.

Mr. Ranum worked for Stewart Engineering and was the Jasper County surveyor from 1981-1984. Nils worked full time for the Missouri National Guard from 1986-1995, serving the last seven years as the executive officer of the 203rd Engineer Group. He retired in 1995 with the rank of Major. During his time with the 203rd, he traveled extensively, visiting Honduras, Costa Rica and Panama, building roads and school building projects. He owned and operated Landstat Surveying Company, retiring in 2017.

He had been a member of First Presbyterian Church, where he served as an Elder, chaired committees for personnel, building and grounds, taught Sunday school and attended Tuesday morning men's Bible study group. Most recently, Nils had been attending his childhood church, First United Methodist. He taught the Partakers Sunday school class and was on the 55+ committee.



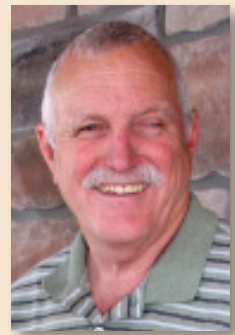
Chris Stewart, Missouri PLS #1960

Chris E. Stewart, age 72 of Joplin, Missouri passed away on Friday, April 26, 2019 at his home.

Chris worked as a land surveyor in Missouri and Oklahoma.

He was active in the Southwest Chapter of MSPS serving as a Director in 2006, 2007, and 2008; Vice President in 2011, 2015 and 2016; President Elect in 2012 and 2017; and President in 2013 and 2018.

The tornado in 2011 nearly drove Chris into retirement. It destroyed his home and surveying business. By the grace of God, he and his wife, Karen, survived the storm with little more than their lives and health. Thanks to a generous donation of trucks and equipment from the Timmons Group, Chris was able to regroup and continue his surveying business.





National Trig-Star Committee Selects Winners of the Richard E. Lomax National Trig-Star and Teaching Excellence Awards

The National Society of Professional Surveyors (NSPS) is pleased to announce the recipients of the 2019 Richard E. Lomax National Trig-Star Awards. The Trig-Star committee met on July 12-13, 2019 to determine the three top high school students from the national examinations submitted by state winners. This year there were thirty-six state winners submitted. A past president of NSPS, Richard Lomax was the driving force behind the elevation of the local Trig-Star program to the national level. In October 1994, Board action named this high school trigonometry skill award in his honor.

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

FIRST PLACE



\$2,000 Qingfeng Li
Laramie High School
Laramie, Wyoming

SECOND PLACE



\$1,000 Austin Mazenko
Cherry Creek High School
Greenwood Village, Colorado

THIRD PLACE



\$500 Henry Hein
Scholars Academy
Myrtle Beach, South Carolina

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

\$1,000 Paul Street
Laramie High School
Laramie, Wyoming

\$500 Jim Padavic
Cherry Creek High School
Greenwood Village, Colorado

\$250 Jennifer Zhang
Scholars Academy
Myrtle Beach, South Carolina

The following is a list of the remaining participants:

Colin Bamford, Alabama
Taryn Trigler, Alaska
Karoline Stein, Germany
Alexander Zera, California
Junzhao Jiang, Connecticut
Aatig Vann, Delaware
Ian McLendon, Georgia
Isaac Speirs, Idaho
Shariq Zaman, Illinois
Neal Hollinden, Indiana
Michael Han, Iowa

Lindsey Vande Velde, Kansas
Damian Schwarber, Kentucky
Sadie Skinner, Maine
Than-Phuong Tran, Maryland
Ashley Nygren, Massachusetts
Hannah Rowe, Michigan
Noah Gersich, Minnesota
Jaima DeVries, Missouri
Amanda Guiland, Montana
Vincent Tang, Nevada
Ava Jovell, New Hampshire

Aditya Agashe, New Jersey
Kendall Scott, North Carolina
Rohit Dasanoor, Ohio
Andy Carter, Oregon
Jacob Johnston, Pennsylvania
Logan Langenfeld, S Dakota
Matthew Chang, Texas
Logan Tischler, Utah
Yifei Zhao, Virginia
Chloe Chapman, Washington
Matthew Becker, Wisconsin

For more information about the NSPS awards and scholarship programs, please contact NSPS, 5119 Pegasus Court, Frederick, MD 21704, (240) 439-4615, e-mail: Trisha Milburn at trisha.milburn@nsps.us.com, or visit the NSPS web site at www.nsps.us.com.



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National Geodetic Survey

Positioning America for the Future

NGS News & Events

NOAA and NIST Collaborate to Develop Life-Saving Positioning Technologies

Friday August 2, 2019

NGS personnel collaborated on a special-purpose survey to support the National Institute of Standards and Technology's (NIST's) Public Safety Communications Research Division. Using both Global Navigation Satellite System and laser surveying technologies, the survey team defined coordinates for several positional reference marks, located both indoors and outside on the Department of Commerce's Boulder, Colorado campus, that are connected to the National Spatial Reference System. NIST will use this geospatial information to develop positioning technologies for reliable indoor mapping, tracking, and navigation capabilities for first responders.



NGS Honors the Gaithersburg International Latitude Observatory

Friday July 26, 2019

NGS commemorated the 120th anniversary of the Gaithersburg International Latitude Observatory with equipment demonstrations, tours of the Observatory, and activities for the public related to the science that was conducted there. The City of Gaithersburg and five other cities around the globe are linked by a unique scientific endeavor that began in 1899, when the Observatory was built as part of an international project to measure the earth's wobble on its polar axis. Built by Edwin Smith for the International Geodetic Association in 1899 as one of six located around the globe, the Observatory played an important role in understanding Earth's weather conditions and physical characteristics, including validating the Earth's wobble on its polar axis. Fully restored in the 1980s, the observatory building, the meridian mark pier, and the five survey markers on the observatory grounds are listed on the National Register of Historic Places. The other five observatories are located in Cincinnati, Ohio; Ukiah, California; Mizusawa, Japan; Kitab, Uzbekistan; and Caligari, Sardinia, Italy.



RDML Gallaudet Visits NGS Testing and Training Center

Friday, June 21, 2019

Retired U.S. Navy Rear Admiral Tim Gallaudet, Assistant Secretary of Commerce for Oceans and Atmosphere, received briefings on a variety of equipment system testing and training functions of the NGS Testing and Training Center in Woodford, Virginia. RDML Gallaudet observed demonstrations of various testing capabilities including: the NGS Global Navigation Satellite System Antenna Calibration Program; the sites's Continuously Operating Reference Station; the Electronic Distance Measuring Instrument Calibration Program; and NGS remote sensing capabilities. RDML Gallaudet also observed historic geodetic survey equipment and a U.S. Army Corps of Engineers ground LIDAR demonstration.

Measuring Unit Change Coming in 2022

Friday, June 7, 2019

Since 1959, two definitions of the foot have been used in the United States: the International Foot and the U.S. Survey Foot. The U.S. survey foot is longer by 2 parts per million than the international foot, and having both measurements in use creates confusion. Modernizing the National Spatial Reference System in 2022 represents an opportunity to eliminate this confusion. Representatives from NGS, the National Institute of Standards and Technology (NIST), and the Department of Commerce's Office of the General Counsel, unanimously decided to phase out the survey foot. NIST and NGS will issue a Federal Register Notice (FRN) to solicit public comment on the proposed change. A second FRN will formally announce the change, with the details and process of this change based on the comments received.

NGS Helps Corps of Engineers Prepare for NSRS Modernization

Friday, May 31, 2019

NGS staff updated the U.S. Army Corps of Engineers (USACE) on modernizing the National Spatial Reference System (NSRS). The USACE relies on accurate geospatial information referenced to the proper datum to accomplish its mission. Updates like these are part of a broader NGS effort to engage federal partners in understanding the benefits of modernizing the NSRS, and to prepare these partners for the changes it will bring to geospatial professions. All federal civilian agencies that manage geographic data will be required to use the modernized coordinate reference frames when they are adopted as part of the NSRS in 2022.

Site Survey Contributes to Global Coordinate System

Friday, May 24, 2019

An NGS surveying team is conducting a local site survey at the Massachusetts Institute of Technology's Haystack Observatory in Westford, Massachusetts. The objective of the survey is to determine the precise spatial relationship between geodetic instruments that contribute observations to the International Terrestrial Reference Frame (ITRF). NGS surveys use the latest technologies to improve the ITRF, which is a key component in monitoring plate tectonics, measuring regional surface subsidence and/or uplift, providing consistent navigation systems, and determining rates of sea-level rise.



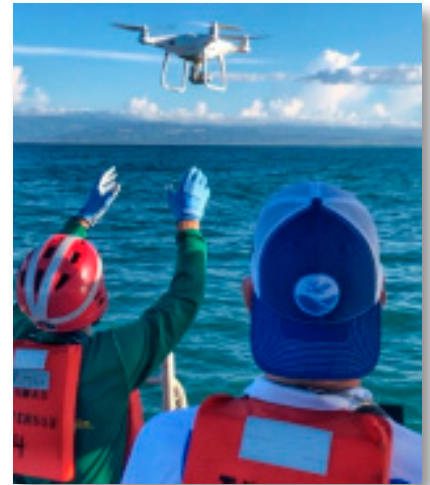
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NGS News & Events *(continued)*

NGS Testing and Training Center Hosts UAS Training

Friday, May 17, 2019

The NGS Testing and Training Center in Woodford, Virginia, hosted Unmanned Aircraft Systems (UAS) training for NGS and OCS personnel. UAS represent an important data-collection platform for shoreline mapping and other mission-critical programs. NGS uses remote sensing to produce spatially referenced data and products to support a variety of critical programs and initiatives. NGS collects an array of remote-sensing data using both traditional and emerging technologies. The NGS Testing and Training Center provides training to internal and external partners and NGS employees. Its mission is to share knowledge and skills and improve the geodetic positioning capacity of stakeholders



Geospatial Summit Focuses on Progress, Stakeholders' Needs

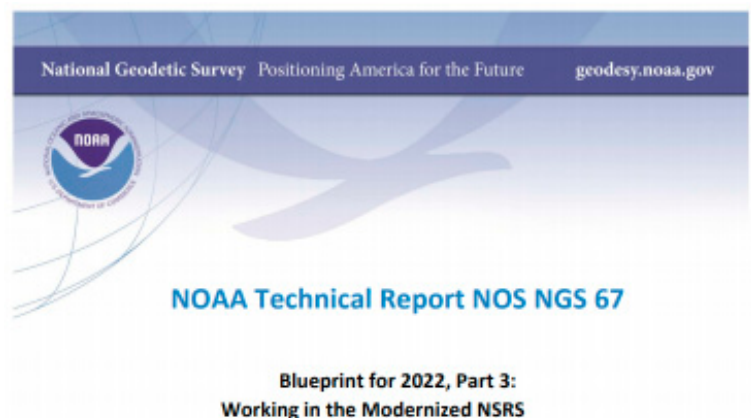
Friday, May 10, 2019

NGS hosted the 2019 Geospatial Summit in Silver Spring, Maryland. Summit participants received progress updates on the planned modernization of the National Spatial Reference System. NGS plans to replace the North American Datum of 1983 and the North American Vertical Datum of 1988 - the official reference frames for position and height - in 2022. NGS also solicited requirements, comments, and concerns from its stakeholders across the federal, public, and private sectors.

Blueprint Released for Working in Modern Spatial Reference System

Friday, May 3, 2019

NGS released NOAA Technical Report NOS NGS 67, which addresses how geospatial professionals can expect to work within the modernized National Spatial Reference System (NSRS), beginning in 2022. In addition to significant improvements in heights from the NSRS modernization effort, the NSRS will rely more heavily on the Continuously Operating Reference System (CORS) network. Due to improvements in survey accuracy, the only way to know whether location coordinates are up to date is to track them continuously. That is why NGS will provide geodetic coordinate information through the CORS network as its primary service.



Preparing the Surveying Community for Important Changes Coming in 2022

Friday, April 26, 2019

Since 1959, the United States has used two types of feet, the “international foot” and the “U.S. survey foot.” The two units of measurement differ by only 0.01 foot per mile, but having both in use often creates problems with real costs. The result has been decades of confusion in surveying and mapping, where computing accurate coordinates over large distances is commonly required. Modernizing the National Spatial Reference system in 2022 represents an opportunity to eliminate this confusion. An NGS webinar shows how it can help move the United States to a single foot definition in 2022. NGS also developed a short video on this topic with the COMET® program available at:

https://www.ngs.noaa.gov/corbin/class_description/NGS_Survey_Foot/



(continued on next page)

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NGS News & Events *(continued)*

NGS Scientists Present Findings for Improving IGLD 2020

Thursday, April 18, 2019

The International Great Lakes Datum of 1985 (IGLD 85) will be updated to IGLD 2020 in 2025. At the European Geosciences Union (EGU) General Assembly in Vienna, Austria, NGS scientists gave a presentation on their findings for improvements to the IGLD. The EGU General Assembly is the largest geosciences meeting in Europe. Concurrently with the EGU General Assembly meeting, the NGS Chief Geodesist also met with the United Nations Committee of Experts on Global Geospatial Information Management's Sub-Committee on Geodesy, which is tasked with creating and carrying out a "Road Map" for developing and implementing the Global Geodetic Reference Frame. 

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