

# CALENDAR OF EVENTS

2019

July 27, 2019
Board Meeting
MSPS Office, Jefferson City, MO

August 14-16, 2019 Review Course

Jefferson City, MO

October 3-5, 2019

62<sup>nd</sup> 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

42<sup>nd</sup> 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: Jerry Bader's compass setup over NW corner of 31, T 37 N, R 8 E. Back cover: Compass sighted on the 1819 witness tree. See '200 Year Anniversary of a Witness Tree on Page 18'!

Donald R. Martin, Editor



## Notes from the Editor's Desk

Donald R. Martin



Greetings *Missouri Surveyor* readers and welcome to the June 2019 Edition! Back again with a summer newsletter just in time for a weather warm-up. My ol' pard Tripod the three legged ground hog proudly calls attention to this edition's contents: it is almost exclusively member written! No one knows this stuff better than the good members of MSPS, so settle in and enjoy the offerings. It is Missouri measurers mapping-out memorials, memoirs and mythology by mesmerizing us with messages MSPS members may mull-over in the merry months of mid-calendar musings.

This edition starts off with a series of announcements, one celebratory and two somber. In the "proud to announce" category of happy news we feature *Austin Edwards of Rolla is the MSPS Scholarship Recipient: The Robert V. Pirrie Memorial Scholarship Awarded for 2019*. Reading about this next-gen surveyor will renew your faith in the future! Then, with regrets we have the tributes to two of Missouri surveying's best. *A Tribute to Rich Norvell, PLS* is a warm honoring of this MSPS Past-President by his friend and partner Bob Volz as well as their family of coworkers and friends. Then, three Missouri State Land Surveyors, Mike Flowers, Darrell Pratte and Ron Heimbaugh share a history and recollections of the original State Land Surveyor in *A Tribute to Robert E. Myers, Jr.* These two good surveyors, two great men, have closed their traverses precisely and perfectly. They forever man the backsights as we turn to the lines ahead. Their legacies are eternal.

Further on in the edition we have some real gems from three fellow MSPS members. Our Immediate Past-President Gerald Bader brings us 200 Year Anniversary of a Witness Tree. It is a tale of coincidence, history and retracement which should interest most readers. Plus, it comes with good pictures too! Next, the Feds come to Missouri in US Forest Service Surveyors Converge on Mark Twain Forest by Chris Ferguson. He shares the news of government surveyors from many states honing their skills at a workshop held in the Columbia vicinity. Then, a master historian and surveyor, Steve Weible takes readers back to the time of territorial Missouri in Claims to Land and the First Board of Commissioners. It is a story of land tenure assurance and governance in the transition period between three flags over Missouri prior to statehood.

I hope you enjoy this edition and remember - *Missouri Surveyor* is your voice; I welcome that which you may have to say, write and show.

Donald

#### Important!

MSPS Members! We are looking for **Awards Nominees** and candidates to stand for election to the **Board of Directors**. See page 8!

# THE MISSOURI SURVEYOR

Published quarterly by the Missouri Society of Professional Surveyors

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The **Missouri Surveyor** is published quarterly by the Missouri Society of Professional Surveyors, to inform and 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



Another Missouri spring has come and passed. As the green of growth has returned to our fields and timber those locales are again filled with parka-free surveyors making the most of the season. The cold has given way to the warmer, busier time of year. It has been a busy and bountiful time for MSPS.

What have "we" been up too? Well, MSPS held its annual "Capitol Visitation" and Legislative Committee meeting in February. The visitation was our opportunity to meet in person and get face-to-face with our elected officials. The

committee meeting is where fellow MSPS members set the course for any political ambitions our membership may have. Both were good, productive events and we all owe our gratitude to those contributing their time and concern to make it all happen.

These efforts are followed by news of legislative success! SB 36 was agreed and passed with our property conveyance language. Now new legal descriptions will bear the name and license number of the description's author.

We also had a successful Spring Workshop. When I say "successful", that is not merely boosterism for our Society. Your evaluations were favorable! In the categories of "relevance", "effectiveness" and "usefulness", conference goers were pleased with what was provided. I am particularly proud to report that most evaluators felt the presenters did wonderful jobs and shared helpful information. There were also numerous insights shared which will be used in developing future sessions to which we may all look forward. Thank you for your involvement!

There is only one item missing for us to set a better course for the future of our Society and Profession, and that is your voice. To present your concerns and to become involved to map the way forward.

One problem area continually discussed is, we are getting old. A search for professional surveyors yields a result of 865 licensed professional surveyors in our state. 865 licensed surveyors whose median age is in the 60's. Let that sink in. It stands to reason that about one-half of us will be retiring or no longer practicing within the next 10 years.

We have many on-going efforts to address this issue and yet. One area is our required education. We do not provide the number of students for Colleges and Universities to maintain programs and classes. Many schools have stopped offering them altogether. Dr. Joe Paiva and the State Technical College of Missouri have offered and will be working closely with our Society as we continue to map a path forward.

Our aging profession leads me to reflect on the passing of our brother and sister surveyors. We recall in solemn honor, the contributions these fine individuals made to their good works and their good lives. Recently, we lost two of our finest – Bob Myers and Rich Norvell. It is not in sadness but great joy that we recall these two and honor their contributions to Missouri surveying. They now walk without us, and we now walk in their steps. As I reflect on their lives and legacy, the words from Psalm 16:6 come to mind; "The boundary lines have fallen for me in pleasant places; surely I have a delightful inheritance."

Chris

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By Dr. Richard Elgin, PLS, PE

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Sponsored by MSPS, the book The U.S. Public Land Survey System for Missouri is now available. This book is a complete synthesis of Missouri's unique version of the USPLSS. Its chapters are: 1. Early History of the U.S. Public Land Survey System, the French and Spanish in Missouri and Missouri's Boundaries. 2. Original Surveys on the U.S. Public Land Survey System for Missouri. 3. Resurveys on the U.S. Public Land Survey System. 4. Missouri Court Decisions Concerning Resurveys on the U.S. Public Land Survey System. 5. Reestablishment of Lost Corners for Missouri. 6. Example Protraction and Resurvey Problems. 7. Some Missouri GLO Plats. The book has 419 pages, 24 figures, 20 example protraction problems, 28 example proportioning problems, 90 example GLO plats, 4 appendices and a glossary. Written by Dr. Dick Elgin who is uniquely qualified to write this book. Dick is a surveying researcher, practitioner, educator and author. Semi-retired, he's spent the last two years writing this much-needed manual about our state's USPLSS.

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# A Tribute to Rich Norvell, PLS

July 17, 1938 - February 24, 2019

# For 50 Years of valued Friendship, Leadership, Mentoring and Service...

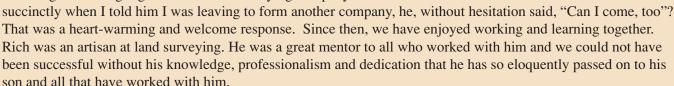
Rich passed into the arms of Jesus Sunday, February 24, 2019 at the age of 80.

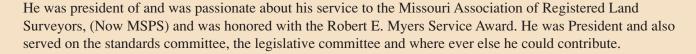
Rich is survived by his beloved wife, Marilynn, his children Karen (Tim) Pace, Rick Norvell and Rhonda (Jeff) Wood, his grandchildren, Jacob Wood, Jessica Wood, Jasmine Wood and Bethany Pace.

Rich fell in love with and married his high school sweetheart, Marilynn in 1958. Their devoted relationship was a beautiful example of enduring love and commitment that they cherished for their nearly 61 years of marriage.

He loved sports and being active. He played football in high school, ran track and was a lifeguard at the St. Louis Public pools.

He was passionate about his chosen profession of land surveying. He was one of the founders of Volz Engineering and Surveying when it began in 1969. Rich and I began working together at a local surveying company and I remember





Most of all, Rich was a devout Christian. He began to follow Christ in his middle years and spent the rest of his life "making up for lost time" with Bible study and his personal ministry work at Bethesda Baptist Church.

His life was filled with a wealth of love and friendship and he will be remembered and missed, forever in our hearts---until we meet again.

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Bob Volz, P.E., P.L.S. and all his co-workers and friends.





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# Austin Edwards of Rolla is the MSPS Scholarship Recipient: The Robert V. Pirrie Memorial Scholarship Awarded for 2019

#### by Donald Martin

As it does each year, the MSPS Scholarship Committee again undertook the pleasant task of awarding our Robert V. Pirrie Memorial Scholarship. This year's endeavor was made easy by the presence of an applicant that is best understood by a simple yet enthusiastic quote from the Scholarship Committee Chair Susanne Daniel – "Austin is our ideal candidate." She was referring to Austin Edwards of Rolla, the 2019 recipient of the Pirrie Scholarship. Citing Austin's outstanding achievements as a student and his legitimate awareness of the surveying



profession, Ms. Daniel spoke for our Society with the strongest endorsement a surveyor may give a young prospect or protégé when she proclaimed "I look forward to welcoming him to our profession!"

Austin Edwards is the son of Connie and Billy Edwards of Phelps County. A model of successful home schooling, young Mr. Edwards was an outstanding student achieving a 4.0 GPA in the rigorous *Alpha Omega Ignitia* curriculum. His favorite courses were in History and Government. Active in his church, this guitarist and singer led a Creative Team Ministry. Noted for his honesty, high character and hard-working nature by his Youth Pastor Jonathan Thompson, Austin is particularly known for going "above and beyond to do the right thing." An example? This fine young man has raised over \$3,000 for in the past two years for various charities!

Austin's awareness of surveying is derived from relatives engaged in the profession who have shared their vocation with him through job shadowing, field work and observation. Our scholarship recipient has participated in corner reestablishment, operated GPS systems, and has been tutored in CAD applications for plating and mapping. He is also aware that surveying needs a next generation which he wants to join. His first step towards these goals is starting the Civil Engineering Technology program at Missouri's State Technical College this coming fall.

This proud son of the Ozarks and lover of Missouri's great outdoors aspires to remain in our fair state, making a future in the land he loves and in the profession he will grow to love – surveying!

# **Award Nomination Form**

to be awarded at the
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October 2019
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Person Nominated:	
Name of Award:	

On a separate page highlight the reason(s) for your recommendations/nominations.

Mail or fax completed form to the Mail Society of Professional Surveyors, PO Box 1342, Jefferson City, MO 65102 or Fax: 573-635-7823, no later than August 15, 2019.

If you have questions contact Joe Clayton, Awards Committee Chair.

# **Awards**

Surveyor of the Year Award has been given since 1987. This award is given to an MSPS member who has given freely of his/her time and efforts to the organization and toward the betterment of the surveying profession.

- \* Must be a Member of MSPS
- \* Should enjoy an outstanding reputation for his/her knowledge, integrity and professional competency.

**Robert E. Myers Memorial Service Award** has been given since 1990. This award is given to an MSPS member who, over an extended period of time (ten years minimum) has given exemplary service and dedication to the surveying profession and in particular to the Society.

# Past Recipients Include

Surveyor of the Year Award - Gerald Bader, Joe Clayton, Richard Elgin, Stan Emerick, Robert Ubben, Darrell Pratte, Chris Wickern, Mark Nolte, Ralph Riggs, John Teale, Shane Terhune, Mike Gray, Don Martin, Dan Lashley, Richard Cox, Jim Mathis, Jim Anderson, Robert S. Shotts, Troy Hayes, Craig Ruble, Gerald Harms, John A. Holleck, John Stevens, Richard Barr, Erwin Gard, Charles Kutz, Robert Myers, Dan Govero, Jim Anderson, Mike Flowers, Bob Pirrie, and Jerry Day.

Robert E. Myers Memorial Service Award - Joseph Clayton, Darrell Pratte, Robert Ubben, Gary Bockman, Sharon Herman, Troy Hayes, Rich Howard, Stan Emerick, Don Martin, Robert Myers, Charlie Kutz, John Teale, Jim Mathis, Robert S. Shotts, Stan French, Gaylon Smitth, Dan Lashley, Gerard Harms, John A. Holleck, J. Michael Flowers, Erwin Gard, Rich Norvell, David Krehbiel, Richard Elgin, Dan Govero, Jim Anderson, Rich Barr, Norman Brown, and Harold Schulte.

**Lifetime Achievement Award -** Robert Myers, John Holleck.



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# A Tribute to Robert E. Myers, Jr.

by J. Michael Flowers, PLS; Darrell D. Pratte, PLS; and Ron Heimbaugh, PLS

Surveyors have contributed to the history and development of the state of Missouri longer than it has been a state. Beginning in 1815, the survey of the 5th Principal Meridian and Base Line by Prospect K. Robbins and Joseph C. Brown provided the basis for the subdivision of 1,950 townships of land, the surveys of over 3,000 Spanish and French land grants, the location of existing cities, the location of the state boundaries and the future development of the entire state as it exists today. The General Land Office (GLO) labored almost 50 years to complete the task of locating the lands of Missouri to be sold by the federal government. GLO surveyors John C. Sullivan, Jennifer Spriggs, and William Ashley were just a few of the many surveyors to contribute to this effort. Some would become County Surveyors and continue surveying the subdivision of the sectionalized lands and the establishment of cities, towns, and villages throughout the state. This particular article is to pay tribute to a pioneer and surveyor born in the next century, who devoted his entire life to surveying and leaves the land surveying profession elevated by his contributions and accomplishments. A graduate civil engineer who spent his private practice career as a city surveyor in St. Louis and as Missouri's first State Land Surveyor for 26 years, Robert E. "Bob "Myers Jr., PLS 134, will long be remembered with the same admiration and honor as those original GLO and county surveyors.

Bob was born February 8, 1930, in St. Louis, the only son of Robert Emmett Myers and Ella Mae Shaver Myers. Bob's father, Robert Emmett Myers Sr., was also

a surveyor who worked for his grandfather's firm, Myers, Keller & Byers Company of Surveyors and Engineers. There is an old cliché among surveyors that the reason most love their profession and job is because it is in their blood. Bob was one who could truly say it was in his blood. Bob was a 7th generation surveyor. His great, great, great, great, great grandfather George Hume was born in Scotland in 1698. A political prisoner of the English, he was sent to the colonies in North America in the early 1700s. King George II commissioned him Surveyor of Orange County Virginia. He was later elected Surveyor of Culpeper County Virginia. Mr. Hume later taught surveying and had a student named George Washington. We all know what became of George. The next six generations, both maternally and paternally, became surveyors with the first to live in St. Louis, Frederick Hyatt, Bob's great, great, great grandfather. He was recorded as surveying in Florissant in 1839. Mr. Hyatt also served as a Missouri state senator and representative. The next generation's John Montgomery Myers was a civil engineer and surveyor who worked for the Missouri Pacific Railroad. Bob's grandfather was also a railroad surveyor and was commissioned as the official Surveyor of the City of St. Louis in 1919. He also formed the company Bob would become the principal and owner of, Myers, Keller and Byers.

During the Depression, Bob's father moved the family to Rolla where he worked for the United States Geological Survey. The family then moved to Chattanooga, Tennessee,

where his father worked for the Tennessee Valley Authority. The family returned to St. Louis in 1946 where Bob worked part-time for his grandfather and graduated from Webster Groves High School in 1948.

Bob enrolled in Washington University after high school and continued to work for his grandfather part-time and during summers. During this period of time he learned a lot about city surveying while







Bob, his father and grandfather (L to R; Robert E. Myers, Jr., Robert E. Myers, Sr. and Claude Hyatt Myers). Bob was the 7<sup>th</sup> generation of family members to be a surveyor.

pursuing his formal education in civil engineering. He liked to tell of his days on a survey crew in the city. The three man crew would receive a work assignment in the office and then collect their equipment: 1' transit, fixed leg tripod, 100 ft. steel tape, plumb bob and hand tools. They would not carry this equipment in a truck or suburban to the survey project, but rather on street cars, busses or trolleys. After they completed the survey, including the monumentation (cut crosses on granite curbs and wood stakes), they would stop at a corner tavern to check their field notes and make the survey ready for the draftsman before returning to the office. I am not sure if Bob partook of a draft beer, but it sounded like the kind of party chief anyone would like to work for. His father died in 1951, but this didn't deter Bob from graduating from Washington University in 1952 with a degree in Civil Engineering. After graduation he was immediately employed by a consulting engineering company, Horner and Schifrin in St. Louis. He worked primarily on structure design and storm sewers until his young engineering career was interrupted by Uncle Sam. He was drafted into the US Army and spent the next 18 months in basic training and electronics/radar school. He was fortunate enough not to be sent to Korea, but instead, was sent to Coney Island and Montauk, New York, to maintain artillery batteries established on the east coast. He was discharged from the Army in 1954 and returned to Horner and Schifrin.

By 1958 Bob had already become a junior partner in the company and was involved mostly in engineering projects. His boss at Horner and Schifrin was good friends with his grandfather, Claude Hyatt Myers, city surveyor of St. Louis and principal owner of Myers, Keller and Byers. His grandfather desperately wanted and needed Bob to return to the company, so Bob made the move back to Myers, Keller and Byers in 1958 and became the owner and president of the company.

Bob married Virginia "Jinnie" Peterson in 1956. They had 4 children, John, Beth, Marty and Paul. Three of the children would become engineers; however, no surveyors. Jinnie died in 2013 and is buried in Bellefontaine cemetery in St. Louis not far from the Joseph C. Brown Memorial monument. His children currently live in Germany, Colorado, St. Louis and Kansas City. Bob has nine grandchildren and eight great grandchildren.

In addition to his professional life, Bob was very much an active member of the communities in which he lived. He belonged to the Lutheran Church in Rolla and St. Louis,

and he served in many capacities including treasurer. He was also a member of Kappa Alpha fraternity, Boy Scouts of America, Toastmasters, and his favorite, Kiwanis Noon Club of Rolla. His hobbies included gardening, sailing, swimming and genealogy. He is survived by all his children, grandchildren and sister, Dorothy Stremmel.

In 1969, to address concerns that the Corners of the Public Land Survey System (PLSS) were disappearing, the Missouri Legislature sent to Governor Hearnes a bill creating the Missouri Land Survey Authority (LSA). The five-member board consisted of four political appointees, two land surveyors, one engineer, one attorney, and the state geologist. One task of the LSA was to find and hire Missouri's first State Land Surveyor. Robert E. Myers Jr. accepted the position in 1971.

Bob did not accept the position to be another bureaucrat; Bob had a vision of what the LSA ought to achieve. First on Bob's list were Codified State Regulations (CSR) to assure all surveys met certain standards for measurement accuracy. The survey was performed with due diligence regarding research, field operations, and monumentation. A plat of the survey represented the facts found on the ground, showing all corners used in making the final determination of property boundaries, and could be re-traced by future surveyors. In 1973, the creation of survey standards by the CSR became administrative law in Missouri.

Then in 1974, Missouri reorganized most of State government. There were hundreds of boards, commissions, authorities, and etcetera, each with several Governor Appointees. A Governor spent a considerable amount of time making appointments. Bob successfully lobbied to have the LSA moved to the Missouri Department of Natural Resources (DNR), the PLSS being a natural resource. The LSA joined the Missouri Geological Survey and Water Resources, becoming the Division of Geology and Land Survey (DGLS).

The LSA was not idle during this time. The surveys of the General Land Office were micro-filmed, indexed, made available to land surveyors, and to anyone else that needed these records. This included the Original Survey Plats and Field Notes, the basis for all PLSS Corners, and the foundation of title to every piece of real property in Missouri. County by County, records from the offices of County Surveyors, County Recorders, and anywhere

(continued on next page)

# A Tribute to Robert E. Myers, Jr. (continued)

else a survey record existed, were brought to Rolla for inclusion into the Land Survey Index (LSI). The promise of a modern Land Survey Repository was being realized in a small government program in Rolla, Missouri.

Bob looked at the job of State Land Surveyor as a way to improve the profession of land surveying. The office of County Surveyor is just one example. Prior to 1979, the statutes governing this office were so antiquated very few counties had anyone filling that position. The statute, at that time, actually stated what a County Surveyor could charge for services rendered, such as three-dollars per survey, plus one-penny per chain for every chain over 100 chains, eighty cents for the plat, and one dollar and fifty cents for calculating acreage in third and fourth class counties. Bob thought third and fourth class counties should be treated as second-class counties with regard to what the County Surveyor could charge, which is a negotiated fee. Another change in Chapter 60 that year includes the method of Section Corner reestablishment.

After 1979, the only proper way to reestablish a lost Section Corner is by proportional measure, whether by double or single proportion, giving each title holder an equal portion of the whole.

The year 1983 brought a controversial change to the survey standards, a requirement that all land surveyors changing the physical attributes of a PLSS Corner must file a document with the State Land Surveyor. Many corner documents were voluntarily filed before 1983, but now there was an administrative law requiring surveyors to file documents. Bob may have carried the water on these changes; he wrote the changes, and lobbied and testified before the legislature, garnering support in these efforts, but he did not act alone. Bob made sure he had the support of the Missouri Association of Registered Land Surveyors (MARLS, the predecessor to MSPS). The State Land Surveyor has a place at all MSPS Board of Officer meetings, giving a report at

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# A Tribute to Robert E. Myers, Jr. (continued)

each board meeting, and to membership at each Annual Meeting. The State Land Surveyor makes no changes to the survey standards or the statutes, without the support of the Standards Committee and the Board of Officers. This practice originated with Bob Myers.

Before there was a Land Survey Division on the licensing board, Bob Myers was a pro-tem member of that board. Bob represented land surveyors on a board bereft of land surveyors. Bob fought tirelessly for the Land Survey Division. When the LSA changed to DGLS, Bob's recommendation was to keep the Authority as an oversight committee. He thought it only proper that every aspect of the Program be as transparent as possible. He spent much of his life trying to bring outside oversight into the LSP.

By 1984, there was a change to the North American Datum. This required a complete reworking of the statute concerning State Plane Coordinates (SPC). In 1984, it is widely imagined the United States would leave a measurement system based on the length of a king's foot

and adopt a system based on scientific principle. Always a supporter of the metric system as a superior method of measurement, Bob wrote the metric system into the new statute concerning the publication of State Plane Coordinates in Missouri.

Nineteen years into his tenure as State Land Surveyor, the time was finally right to require the recordation of all surveys delineating new parcels of real property. In 1990, MARLS took a position supporting legislation that would require certain surveys become part of the public record. Bob, as an ardent supporter of transparency, believed the land surveyor should not work behind closed doors. The land surveyor must follow in the footsteps of those that came before; it is incumbent the land surveyor leave footsteps for those that come after. Also, in 1990, MARLS created the *Robert E. Myers Service Award*, a citation for "...untiring efforts toward the advancement of the profession of Land Surveying in the State of Missouri."

(continued on page 16)



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# A Tribute to Robert E. Myers, Jr. (continued)

In 1991 Bob Myers was squarely out in front of another looming problem. This time it was a problem with the boundary between Missouri and Nebraska. Bob called for the creation of a Missouri Boundary Commission to work with Nebraska to find a solution to a Missouri River cut-off named McKissick Island. Bob was also behind legislation creating the Land Survey Advisory Committee. Since the end of the Land Survey Authority, Bob wanted a panel to explore the goals and objectives of the Land Survey Program. The Advisory Board, a shadow of the original LSA, was appointed by the Director of DNR rather than the Governor and would lend advice and consent from the outside, still high on Bob's list of objectives.

In 1997, at age 67, Bob retired as State Land Surveyor, but not from the land surveying profession. He started a new consulting service, Land Related Technology. Bob consulted on many issues, including helping counties decide how best to implement Geographic Information System (GIS) mapping projects.

In 1957, the year MARLS formed, Bob was a twoyear veteran Registered Land Surveyor, being "Grandfathered" in at the age of 25. Nine years later he was elected President at the age of 34 and remained active his entire adult life. Bob was the 1992 recipient of the MARLS Surveyor of the Year Award. In 2000, believing the term Registered Land Surveyor was antiquated and new statute language using the word profession to describe land surveying should be implemented, MARLS changed its name to the Missouri Society of Professional Surveyors (MSPS). Bob was also honored by Washington University School of

Engineering with the Alumni Achievement Award in 2001. Selected in 2009, Bob received his namesake award, the *MSPS Robert E. Myers Service Award, and in* 2015, Bob received the *MSPS Lifetime Achievement Award*.

Bob's "...untiring efforts..." continued into his 80s; in 2010 he worked with the LSP to establish a baseline of three-dimensional coordinates on existing property corners in St. Louis County. He challenged surveyors to use their typical method of measuring in such circumstances and return their results to him. Bob analyzed, and published the results of the measurements giving land surveyors a glimpse of the accuracies they might expect under similar conditions. Bob authored legislation that replaced the Land Survey Advisory Board with a Governor appointed Land Survey Commission. The new law not only vastly improved the influence of the Commission, but increased its power over the implementation of LSP projects and personnel. Bob's vision of outside oversight by a strong, politically connected panel, is finally realized.



Jinnie and Bob Myers, 2009 MSPS Annual Meeting.

In conclusion, Bob retired as State Land Surveyor in 1997, his achievements, awards, and accomplishments are partially documented within. The next 22 years were spent in both Rolla and St. Louis. He and Jinnie took care of their son, Marty, after he experienced a traumatic brain tumor. Bob continued to be active in MSPS and the local MSPS chapter, consulting with numerous counties as an expert in parcel based GIS mapping, taught workshops, expert witnessed in land surveying, reviewed surveys for national and state standards and gave advice to attorneys on surveying issues; also teaching Legal Principles of Surveying at University of Missouri Rolla, now Missouri University of Science and Technology. After moving back to St. Louis, he was very active at Laclede Groves Retirement Complex. He, Jinnie, and Marty made Laclede Groves their home until he and Jinnie passed. Marty continues to live there today. Bob will be remembered as a family man, role model for surveyors, and loving husband and grandfather. He will be dearly missed by all. In closing, a quote from the "Land Surveyor's Creed" best describes Bob and is truly the most fitting description of him:

To engage only in honorable endeavor;

To do my utmost to raise the standards of the land surveying profession;

To believe that success as a Surveyor is a worthy ambition, but to seek success based only upon justice and right;

To live according to the laws of man and the highest principles of professional conduct;

To place service to others before personal profit, the honor of the land surveying profession before personal advantage and the public welfare above all other considerations.

Bob, you were a great teacher, mentor, and friend, and your contributions and legacy to the land surveying profession will live on.



J. Michael Flowers, PLS 1898

Darrell D. Pratte, PLS 2126

Ronnie L. Heimbaugh, PLS 2004001332

# 200 Year Anniversary of a Witness Tree

by Gerald Bader, PLS

In the very early days of 2019, my associate Myron Naeger and I found ourselves working in Section 32 of Township 37 North, Range 8 East, southeast of Weingarten and just west of where Jonca Creek meets the Auxvasse River in Valle Hollow. While pulling and reviewing records for our project I noticed that two sections west of our location was an original position established and witnessed on January 14<sup>th</sup> in the distant past. I was reading that record on January 13, 2019. Tomorrow would be the 200<sup>th</sup> anniversary of that point and its accessories – I pondered "what if?"

Not willing to leave things with an unanswered "what if I went there on the corner's bicentennial?", I plunged deeper into my research on the corner. The next morning, I told Myron, "we're going on a joy ride." Not letting me off-the-hook without explaining myself, Myron had me tell him why we were loading the compass and chain. We were off to recover a corner and witness tree first noted two hundred years ago in this very day! He was in and off we went to the site.

I was aware of the location although none of my previous surveys had required to utilize the corner. I recalled that Dan Lashey had visited the site in 1983 and I knew that he then had perpetuated the corner and noted a witness tree from 1819 still standing



Jerry Bader pointing to the window scar of an 1819 witness tree first noted by Henry Elliott. Here Bader is on the 200<sup>th</sup> Anniversary of the tree as a corner accessory, January 14, 2019.

watch as a silent sentry to the original survey. I believed it to be but one of two original witness trees still alive in Ste. Genevieve County. I also knew I would be retracing the steps of Henry Elliott, a contract surveyor to the General Land Office in the early 19<sup>th</sup> Century. Experience had shown me the Mr. Elliott could be relied on to have done a very fine job.

In 1817 Henry Elliott had three surveying contracts with the United States, which totaled sixty-two townships and fractional townships. Two contracts were in the areas around Ste. Genevieve, St. Francois and Perry Counties. The other contract was eight townships in Butler County. He also surveyed the out boundary of these townships as well as several other townships out boundaries. The following is from a contract with Henry Elliott:

"Articles of agreement has made and upon, this twenty two day of March in the year of our Lord one thousand eight hundred and seventeen, between William Rector surveyor of the land of the lands of the United States, in the territories of Illinois and Missouri acting for and on behalf of the United States of his part and Henry Elliott ... will do and preform the following survey agreeable to the laws of the United States and such instructions as may be given to him by the said William Rector. He will subdivide and survey into sections and establish corners for quarter sections all in Townships and fractional Townships of land (except as is herein after exceptions) that are within the following bounds and limits. Beginning on the Fifth principal meridian at the corner to Townships 39 and 40 North of the base line; thence with said meridian South to the corner

of Townships No. 36 and 37; thence between Townships 36 and 37 East to the Mississippi River; thence up said river, including all islands that belong to the Territory (Missouri) as far up as to the East and West line between Townships No. 39 and 40. West to the beginning. Henry Elliott is not to survey what-is called the common field land commons, Town lots and lots or tracts of land in and appertaining to the Village of St. Genevieve."

What follows in a chronology of documented visits to the corner and a two-century history of recovery and noting a faithful, long standing witness tree.

#### 1819, In Township 37 North, Range 8 East of the Fifth Principal Meridian (Corner Index No. V-1)

On January 9th 1819, Mr. Elliott commenced the survey of Township 37 North, Range 8 East, this was a Saturday. Mr. Elliott and his crew began on the Township line at the corner for Sections 35 and 36 and ran North 40 chains (skipping a few days) on Thursday morning, January 14th, 1819 - Elliott began on the Township line at the corner to Sections 31 and 32; then he ran North 40 chains setting a post at the quarter corner, continued North 40 chains setting a post at the corner to Sections 29, 30, 31, and 32; running thence East to the Northeast corner of Section 32 (previously set on the 13th). On his return he corrected the quarter corner. At the Northwest corner of Section 32, Elliott ran West setting a post at 40 chains, continuing West to the Range line where he set a post - 600 links South of the Northeast corner of Section 36 in Township 37 North, Range 7 East. He witnessed a 12 Black Oak S68°E at 15 links (9.9) and a 10 White Oak N64°E at 75 links (49.5°). Back to the Northwest corner of Section 32 and continued North...



Myron Naeger takes a bearing to the 1819 witness tree at the Northwest Corner of Section 31, Township 37 North, Range 8 East in Ste. Genevieve County.

(continued on next page)

# 200 Year Anniversary of a Witness Tree (continued)

#### One hundred and twenty-four years later - in 1943

The Corp of Engineers, under a contract with the United States and surveying for the Weingarten Interment Camp, noted "found Sandstone, Southwest corner Section 30. North 1°07"E 379.3' (GLO 396.0') to the Southeast corner to Section 25, T37N - R7E." Witness Accessories, "Reference monument at North 16.7' and North 89° 29½' East 23.2'. 8" Black Oak N1°E, 90.1' and an 18" Post Oak N75°40'E 15.1""

#### One hundred and sixty-four years later - on August 29, 1983

Orvis Dan Lashley, PLS 1538, noted "found a 4" x 20" x 22" sandstone well set near a fence corner. Found Corp of Engineers reference monuments North 16.7' and N891/2°E 23.2'. Found an 18" Post Oak bears N76°E 15.1' and a 29" White Oak with a window scar bears N64°E 77 links (original GLO witness tree). Replaced stone with a 2 1/2" x 36" aluminum pipe with a cap stamped to identify the corner. Witness accessories – scribed "WT" at breast height with notch below and a nail in a notch at the base: 19" White Oak N21°W 9.0' - 14" White Oak N10°E 29.3' - 8" Pine S77°E 25.9' - 11" White Oak S46°W 12.0' - and Sign and Sign post North 7.4'. See MLS Document #33021. State plane coordinates N 743,805.56 and E 586,466.01 East Zone."



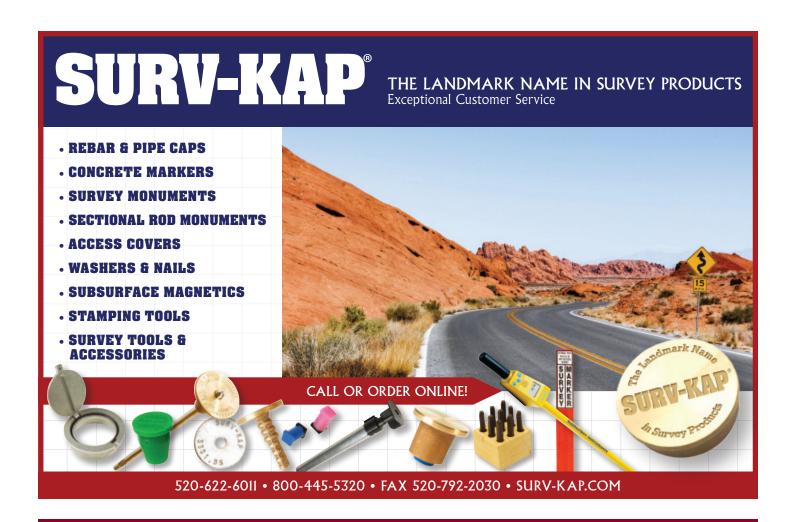
*Jerry and Myron measuring the distance to the witness tree with a two-pole chain.* 

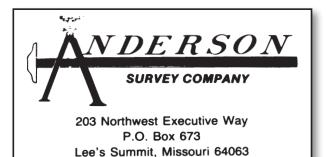
#### Two hundred years later - on January 14th 2019

Gerald Bader PLS 2544, Ste. Genevieve County Surveyor and Myron Naeger found MLS monument as described in Document #33021. Found COE reference monuments North 16.7 and N89 1/2°E 23.2 . Stumphole bears N76°E 15.1 and a 29 (now 35) White Oak with a scar bears N64°E 77 links (original GLO witness tree). Found a 19 (now 26) White Oak N21°W 9.0 - 14 (now 14) White Oak N10°E 29.3 - 8 (now 15) Pine S77°E 25.9 - 11 (now 14) White Oak S46°W 12.0 and Sign and Sign post North 7.4 . Added a tree tag to the White Oak S46°E 12.0 . Took a 45-minute OPUS Observation and OPUS was unable to process.

#### **Real and Alive**

On its 200<sup>th</sup> Birthday as a witness tree, the Old White Oak still stands. Now hollow, the tree remains alive and clearly displays the now healed window scar. On the opposite side of the tree from the scar is a split through which one can look upon the inner ring of the hollow. On the interior walls of the tree's enclosed cavity the inverse of the scar may be observed. Looking upon the Old White Oak that day, I affirmed one of my eternal joys to be found in surveying – the magic and majesty of its history. Not only is the history of surveying real, as the Old White Oak attests, it is alive!





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# US Forest Service Surveyors Converge on Mark Twain Forest

by Chris Ferguson, Mark Twain National Forest Land Surveyor



US Forest Service Region 9 Land Surveyors' Workshop field crew assembled: 1st row (1 to r; Aaron Skattum, Chippewa NF, Roger Mallott, Superior NF, Randy Erickson, Chequamegon-Nicolet NF, Terry Throesch, Mark Twain NF, Nathan Price, Washington Office, Chip Chapman, Wayne NF, Bob Stone, Hoosier NF, Bill Malcomb, Monongahela NF, Lance Brown, Shawnee NF, Mike Hancock, Shawnee NF. 2nd row; Mike Smith, Superior NF, Carol Waite, Huron-Manistee NF, Jordan Ketola, Ottawa NF and Hiawatha NF, Elizabeth Schleif, Milwaukee Region 9 Office, Darren Norrington, Hoosier NF, Joe McGraw, Allegheny NF, Chris Ferguson, Mark Twain NF (Photo by Carter Deems, Milwaukee R-9 Office)

The Mark Twain Forest was proud to recently host the Region 9 Land Surveyors' Workshop of the U.S. Forest Service. The meeting was held in Columbia, Missouri from April 8th through the 12th.

One of the highlights of the visit was the opportunity for the entire group to search for, recover and perpetuate an original General Land Office (GLO) corner and review historical field methods using actual equipment from that timeframe.

During March, Mark Twain Surveyors Terry Throesch and Chris Ferguson made a couple of reconnaissance field visits to the Cedar Creek unit of the Houston/Rolla/Cedar Creek District prior to the rest of the Region's arrival. The Cedar Creek District is composed of about 16,600 acres of National Forest situated in Boone and Callaway Counties between Jefferson City and Columbia. Much of the area is well-settled with a considerable amount of mixed-use development adjoining small tracts of Forest. In fact, much

of the District is utilized for grazing allotments; so finding significant expanses of forestland it not an easy task.

Using available resources (maps, plats, corner certificates, etc.) Terry and Chris endeavored to find a previously unrestored corner which absolutely had to meet a few other criteria. First, it had to be legitimate and not subject to dispute. Then, it also had to be accessible from a site where up to ten Forest Service vehicles could easily park and not cross substantial private property. Lastly, it needed to be nearby a location to give a class on the GLO in Missouri.

Most fortuitously, all those were met! After considerable but fruitless searches for good candidates, there was one final corner remaining: the Quarter Corner to Sections 14 and 15, in Township 46 North, Range 11 West along the east boundary of the *Pine Ridge Campground and Picnic Area* that had yet to be replaced with a modern survey

(continued on next page)

# US Forest Service Surveyors Converge... (continued)

monument. Even that came with some arrangement, as a private survey was being conducted simultaneously in the adjacent section by Chris Wickern, PLS (current MSPS President) of Engineering Surveys and Services. We shared our corner data - as all amiable surveyors should do – and Wickern graciously allowed us time to monument the west side of Section 14 for inclusion in his survey.

After taking ample measurements and recovering sufficient evidence, the hosts surveyors were ready to proceed. Bob Shotts of Robert S. Shotts, Inc. out of Lebanon, MO was gracious to lend compasses, Jacob staffs and chains dating from the 1830's to add a "hands-on" element to the GLO portion. With that, Throesch and Ferguson were ready for their guests to arrive.

The morning of April 10th was the field day, with magnificent spring weather of morning temperatures in the high 50's with plenty of sun and afternoon highs in the mid 80's with windy and cloudy conditions. The group assembled at the hotel conference room and convoyed the vehicles to the recreation site where they gathered for field work.

Class began promptly with Chris Ferguson going over the survey and the Forest Service specific *Job Hazard Analysis* (JHA's). Once that was done, Mark Twain Forest Supervisor Sherri Schwenke and District Ranger Kim Bittle welcomed the group aboard and gave some insight into the area the surveyors would soon be working.

Also in attendance was Eastern Region Director for Air, Water, Lands, Soils and Minerals, Shawn Olson. Shawn eagerly participated throughout and was perhaps even ready and willing to join the field crew, but instead was asked to provide lands expertise to Sherri and Kim elsewhere on the District

We had quite a gathering of experience on the jobsite. Joining Regional Surveyor Liz Schleif was Chief Surveyor Nathan Price of the Washington Office and surveyors from Pennsylvania to Illinois and along the Great Lake States from Michigan to Minnesota.

After some discussion of GLO history in Missouri, augmented with accounts of surveying from the Colonial States through Ohio's Seven Ranges and the First through

Fifth Principal Meridians given by the individual Forest Surveyors, it was time to use the ancient "tools of the trade". Following a little introduction to the compass and chain's peculiarities, it was time to measure. The group went about working on the five-plus chain course with a couple of obstacles not unlike those frequently encountered by original GLO crews.

With abounding zeal and competitive spirit each crew measured the course within fractions of a link (0.66 feet) and reported the bearing within a half degree. It was then that everyone realized what daunting work it was for the original surveyors to measure up to 6 miles a day with that gear. The experience gave all a richer perspective for when they attempt to "follow in the footsteps" of earlier surveyors.

After lunch, it was time to march into the corner position. The walk was actually pleasant, since much of the route had been an Eagle Scout trail project, and the surveyors departed the trail near a grazing allotment, and had only a saggy three-wire fence and small wash to cross before reaching the corner location. For the purposes of timeliness, the Mark Twain crew had already established a "midpoint" search position along the line and flagged locations for stumphole matches.

For this portion, participants thankfully left the pioneer era equipment behind and relied on modern GPS positioning. After some discussion about the original GLO plat and notes for this corner along with augmenting evidence from subsequent county and private surveyors, everyone in attendance discovered that the actual corner location was just four feet north from the search position and about 20 feet west of an old downed fence corner. Surprisingly, not only was the county surveyor's stumphole deep and evident, but the two GLO stumpholes were apparent as well as a second-growth hickory springing from the line tree stumphole less than two chains north. Even more surprising was these holes were remaining from elm and hickory bearing trees dating from 1817 near the bottom of a draw.

All hands eagerly pitched in digging the hole, planting the pipe (an aluminum pipe monument with stamped bronze cap), remeasuring the location with RTK-GPS, constructing the rock pile around the pipe, driving the post, attaching the signs, and taking suitable witness trees (now in an oak flat offering much better witnesses).

After gathering up the equipment and accounting for the field party (author's note: 'I had never been part of such a large and talented group before!'), it was time to trek out the same way the team ventured in. Once up top, gear was put away in respective vehicles, work vests were peeled off, participants drank a little cool water and headed back to Columbia, their work complete.

This was just one day of what was an extremely productive and informative session covering a variety of relevant and important topics, leaving the hosts from the Mark Twain Forest wishing they could have a field party as talented as those gathered for more jobs in their District!



Axeman/Flagman Carter Deems keeps Chain Carrier Bob Stone on line using an early 19th century 2-pole chain.



Deputy Surveyor/Compassman Nathan Price sights the line while Bob Stone holds on the tally as others wait their turn on the "GLO crew".



Jordan Ketola checks offset ties to the corner monument with the author while Mike Smith stands by to make adjustments and Nathan Price looks on.



Regional Surveyor Liz Schleif posts accessory witness tree as Aaron Skattum looks on.

### Claims to Land and the First Board of Commissioners

by Steven E. Weible, PLS, January 2019

Legislation for ascertaining and adjusting the titles and claims to land in what was formerly Upper Louisiana had been passed March 2, 1805 (U. S. Statutes at Large, Vol. 2, pg 324). In accordance with that act a board of commissioners had been appointed, consisting of James L. Donaldson as recorder of land titles and John B. C. Lucas and Clement B. Penrose as commissioners. Donaldson had arrived in St. Louis in September 1805 to commence his duties and by December 1805 Lucas and Penrose had joined him to begin the task of examining claims to land that had been conceded by the former French and Spanish governments.

On December 23, 1805 the Board of Commissioners notified the Secretary of the Treasury that they had begun the process of procuring a meeting place and the supplies that they would need to conduct business. They selected Charles Gratiot to serve as clerk for the Board and Marie Phillipe Leduc to serve as translator (*Territorial Papers*, Vol. 13, pg 318).

The Board of Commissioners set about the task with no more instructions than what was covered by the previously passed acts of Congress. By January 1806 they and William C. Carr, the agent for the United States, were confronted with issues that had to be resolved before they could successfully evaluate the claims before them. First of all, the first section of the Act of March 2, 1805, chapter 26, specified that the Indian title must have been extinguished in order for a claim to be confirmed. The Board had no documentary evidence to address this requirement and were at a loss as to how to deal with it. Next, the second section of the same act required "the permission of the proper Spanish officer" for those making a claim under actual settlement. Permission to settle had often been given verbally without any written evidence, so many claimants were unable to prove permission, though they had long occupied the land. Next, the Board became perplexed over the distinction between the Spanish requirement of establishment or improvement and the Act of Congress requiring inhabitation and cultivation by a certain date. And more substantially, the Board had some difficulty in determining the intended meaning of the phrase, "one mile square, together with such other and further quantity, as heretofore has been allowed for the wife and family of such actual settler, agreeably to the laws, usages and customs of the Spanish government." (Territorial Papers, Vol. 13, pg 393-394, 493-501; ASP:PL, Vol. 2, pg 560-561).

Following a correspondence from William Carr, and subsequent consultations with the President of the United States, the Attorney General and others, Albert Gallatin, the Secretary of the Treasury, sent further instructions to the Board of Commissioners in a letter dated March 26, 1806, addressing the interpretation of the second section of the Act of March 2, 1805, chapter 26, and whether permission to settle must be proven or merely presumed. The second section of the act was to be construed to grant the quantity specified by the Spanish regulations according to the size of the family with a maximum of one mile square. In regard to permission to settle, Mr. Gallatin advised the Board that if Congress had not provided for a particular circumstance, then the Board was to reject the claim and make note of its merits in the report that they were to provide upon completion of their work. Mr. Gallatin further admonished the Board to strictly adhere to the letter of the law and leave it to Congress to fix any problems with the legislation (*Territorial Papers*, Vol. 13, pg 462; ASP:PL, Vol. 2, pg 561).

Congress responded to the deficiencies found in its previous legislation by passing the Act of April 21, 1806, chapter 39, An Act supplementary to an act intituled "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 391).

The first section of the Act addressed the situation where evidence was not available to prove that the "permission of the proper Spanish officer" had been obtained, as required by the second section of the Act of March 2, 1805, chapter 26. Permission was to be presumed, if an actual settlement had been commenced prior to October 1, 1800 and the land had been continuously inhabited and cultivated for three years prior to December 20, 1803.

The second section of the Act addressed the situation in which a claim could be made under the first section of the previous Act, but the claimant was under the age of 21. This may be the case when a tract of land was conceded for the benefit or support of a minor. In addition to the requirements of the previous Act, the tract had to have been inhabited and cultivated for ten consecutive years prior to December 20, 1803.

The seventh section of the Act authorized the Board of Commissioners to travel to locations more convenient to the claimants in order to receive oral evidence in support of or in opposition to claims.

The eighth section of the Act directed the Board of Commissioners in their proceedings and decisions to conform to the instructions that the Secretary of the Treasury may submit to them. The Secretary of the Treasury was also to prescribe the forms for the reports and transcripts the Board was to prepare.

In a letter, dated May 7, 1806, Mr. Gallatin notified the Board of Commissioners of the recently passed Act and provided them a copy. He stated that the required forms would be sent in due time. As far as instructions, he reiterated his instructions from March 26, 1806 and emphasized that they were to adhere to the letter of the law. They were not to confirm any claim that was not provided for by existing legislation (*Territorial Papers*, Vol. 13, pg 507; ASP:PL Vol. 3, pg 356).

By August 1806 Mr. Gallatin had decided that maybe he should prepare a formal set of instructions for the proceedings and decisions of the Board of Commissioners and sought the advice and approval of the President of the United States (*Territorial Papers*, Vol. 13, pg 567). The final form of the instructions was sent to the Board of Commissioners with a letter, dated September 8, 1806 (ASP:PL, Vol. 3, pg 356).

By the time the Board of Commissioners received the instructions sent by Mr. Gallatin, they had supposed they were nearly finished with their work. In a letter to Mr. Gallatin, dated October 22, 1806, Commissioners Lucas and Penrose informed him that at such a late stage in the process these new instructions would require a considerable revision of the claims upon which decisions had already been made. They proposed to finish examining the remaining claims according to the new instructions and to then prepare appropriate transcripts and reports for his consideration as to how to proceed from there (*Territorial Papers*, Vol. 14, pg 19).

James Donaldson, the Recorder of Land Titles, had in October 1806 taken his family and gone back to Baltimore, Maryland (*Territorial Papers*, Vol. 14, pg 21, 27, 64). Judge John B. C. Lucas and Clement Penrose remained as commissioners with Penrose claiming to have been deputized by Donaldson as Recorder before he departed. This being the situation, Judge Lucas informed the Secretary of the Treasury in a letter, dated November 4, 1806, that he would not continue until either a replacement for Mr. Donaldson was appointed or further instructions from the Secretary were received (*Territorial Papers*, Vol. 14, pg 27, 40).

The proceedings of the Board of Commissioners had not been without its drama. James Donaldson and Clement Penrose, having similar sympathies and opinions, formed a majority of the Board and proceeded to advance their decisions without regard to the dissent of Judge Lucas. Donaldson and Penrose were more liberal in their judgements and more sympathetic to the claimants, whereas Judge Lucas was more strict in his interpretation of the law. This element of contention led Donaldson and Penrose to make every effort to exclude Judge Lucas from the proceedings of the Board. Around August 1806 both Donaldson and Penrose moved their residence to the Army encampment, which was about 14-15 miles away from the established meeting place of the Board in St. Louis. As a result, their attendance was irregular and often at odd hours when neither Judge Lucas nor William Carr, the agent for the United States, was present. Since they formed a majority of the Board, they conducted business wherever and whenever they chose. They even concocted a scheme to go to the southern settlements to conduct business and after they were informed that Judge Lucas had departed for the location, they rescinded the decision and continued in St. Louis without him (*Territorial Papers*, Vol. 14, pg 58).

(continued on next page)

## Claims to Land and the First Board of Commissioners (continued)

Apparently, Donaldson had been planning his departure for some time. In a letter to his father-in-law in Baltimore, dated July 6, 1806, he expressed his desire to finish the business of the Board as soon as possible. He intended to depart in October and was making every effort to complete the work so that his departure would not be delayed (*Territorial Papers*, Vol. 13, pg 537). Judge Lucas reported to the Secretary of the Treasury in a letter, dated January 4, 1807, that Donaldson had left St. Louis on his way to New Orleans on October 8, 1806 before the last instructions had been received from the Secretary (*Territorial Papers*, Vol. 14, pg 64).

So with the Recorder of Land Titles gone and the two remaining commissioners at odds and unable to agree on anything, the progress of the Board was at a standstill (*Territorial Papers*, Vol. 14, pg 36). Judge Lucas continued to report to the Secretary of the Treasury (*Territorial Papers*, Vol. 14, pg 27, 40, 52, 58, 81) and Penrose took it upon himself to prepare an opinion of the "majority" of the Board (meaning himself and Donaldson) on a classification of the claims along with a report from the Recorder's books and his own opinions as to provisions to be addressed by future legislation (*Territorial Papers*, Vol. 14, pg 47).

Secretary Albert Gallatin finally responded in a letter, dated February 13, 1807, stating that new legislation was pending in Congress that would make yet more changes. He requested that they discontinue rendering decisions, but advised them that they may continue to receive evidence until they received further instructions (*Territorial Papers*, Vol. 14, pg 97).

(see page 38 for Instructions from Secretary of the Treasury)

#### **SOURCES**

American State Papers: Public Lands (ASP:PL)
The Territorial Papers of the United States, compiled by Clarence Edwin Carter, 1948
U. S. Statutes as Large

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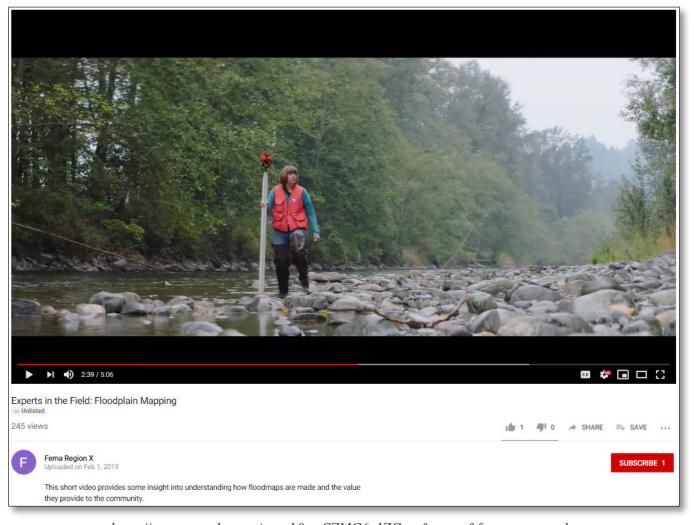




May 8, 2019 NSPS

#### Surveying identified by CNBC as one of the best outdoor professions

Thanks to Wendy Lathrop (NSPS President 1996) for sharing a weather-related video in which the work of Surveyors is recognized, although all Surveyors will pick up on the fact that in a scene showing surveying in a stream the level rod isn't held vertically (plumb).



https://www.youtube.com/watch?v=CZMG6c1ZG w&amp=&feature=youtu.be

(continued on page 33)

# Missouri Society of Professional Surveyors

# Surveyor's Review Course

August 14-16, 2019 Best Western Capital Inn, Jefferson City

#### **PROGRAM**

Wednesday, August 14 ~ 1:00 - 6:00 pm Surveying Math (Bring your NCEES-approved calculator) This course is ☐ Calculator Use & Basic algebra appropriate for those ☐ Trigonometry and Geometry who will be taking any ☐ Traverse Calculations and Coordinate Geometry part of the surveying ■ Surveying Math Applications licensing exams, or for those already licensed Thursday, August 15 ~ 8:00 am - 5:30 pm and wish to review **Surveying Fundamentals** surveying topics and receive PDUs. ☐ Errors Analysis & State Plane Coordinates ☐ Route Surveys, GPS & GIS ☐ Exam Preparation, Legal Principles & Definitions Friday, August 16 ~ 8:00 am - 3:30 pm Missouri Practice ☐ Missouri Standards & Board Rules ☐ Missouri GLO System, Resurveys on Missouri's GLO system (RSMO Chapter 60)

### **INSTRUCTORS**

**Dr. Dick Elgin**, PLS, PE, works for Archer-Elgin Surveying and Engineering, LLC (Rolla). He authored "The U.S. Public Land Survey System for Missouri." **Mike Flowers**, PLS, is the former Missouri State Land Surveyor. He is a former member of the Missouri Board of Architects, Professional Engineers, Professional Surveyors and Landscape Architects. **Dr. Joseph Paiva**, PLS, is a geomatics and business development expert and a former university educator, who is now CEO and Principal of GeoLearn (www.geo-learn.com), an online education company specializing in courses for professionals and technicians in the geospatial industry. All are well known surveying professionals. Joe Paiva helped found the Review Course and for years all three have previously taught parts of it.

This course has been approved for continuing education credits from the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Landscape Architects for the following hours:

Wednesday — 5.0 PDUs Thursday — 8.5 PDUs

☐ Other Missouri Statutes, Riparian Boundaries

Friday — 6.5 PDUs

Note: If you are currently incensed in Missouri, all 6.5 PDU's on Friday are applicable for the 2 hour PDU requirement for license renewal per 20 CSR 2030-8.020 (Missouri Standards).

COURSE FEE SCHEDULE (Please check appropriate boxes)	MSPS Member	Non-MSPS Member
Wednesday and either Thursday or Friday	\$600	\$600
☐ Thursday and Friday	\$750	\$800
☐ All Three Days	\$900	\$1,000
☐ Wednesday Only	\$250	\$250
☐ Thursday Only	\$500	\$500
☐ Friday Only	\$450	\$450

Missouri Society of Professional Surveyors

# Surveyor's Review Course

August 14-16, 2019 Best Western Capital Inn 1937 Christy Drive Jefferson City, MO 65101

#### LOCATION AND LODGING

A block of rooms has been reserved at the Best Western Capital Inn in Jefferson City, Missouri, at a rate of \$101.69 plus applicable taxes excluding blackout dates for single king or double queen occupancy which includes a Full Hot Breakfast each morning. **Deadline for reservation is July 25, 2019.** Make your reservation by calling 573-635-4175 and refer to "MSPS rate" when reserving your room.

#### CANCELLATION POLICY

MSPS reserve the right to cancel the program and return all fees in the event of insufficient registration. A participant may cancel a registration up to two weeks before the course date and receive a full refund. NO REFUNDS will be given after August 15, 2019.

# **Review Course Registration**

Name _	PLS #		
Firm			
Address			
	ite		
Phone _	Email		
	PAYMENT (	OPTIONS	
	Visa/MasterCard/Discover/American Express	☐ Check Enclosed	☐ Invoice my Firm
Card # _		Exp. Date	CVV Code
	Total Amount: \$		

To Register, detach and mail payment to: MSPS, PO Box 1342, Jefferson City, MO 65102 Phone: 573-635-9446 ~ Fax: 573-635-7823 ~ Email: msps@missourisurveyor.org

Registration Deadline: August 15, 2019

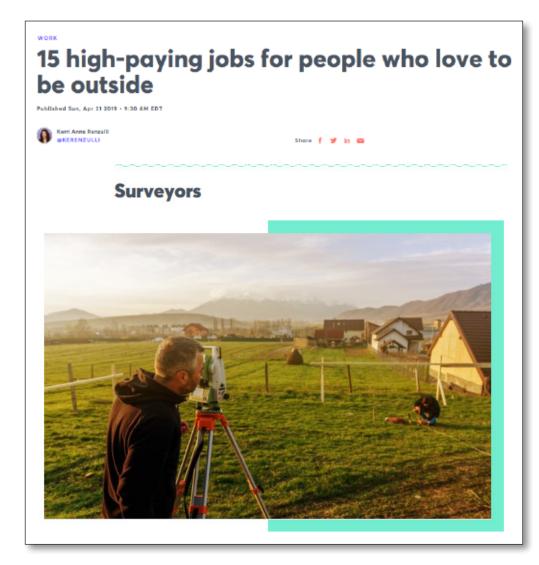
# NSPS News & Views (continued)

April 24, 2019 NSPS

#### Surveying identified by CNBC as one of the best outdoor professions

The cable news network CNBC has published a list that includes surveying among the 15 best outdoor professions. The report stated, "These workers determine property boundaries using precise measurements and provide data on the shape and contour of the planet's surface for engineering, mapmaking, and construction projects, according to the [Bureau of Labor Statistics] BLS. They often testify in court regarding survey work that establishes the official land and water boundaries for deed, leases and other legal documents. To become one, you typically need a bachelor's degree as well as a license in order to certify legal documents and provide surveying services to the public."

https://www.cnbc.com/2019/04/18/15-high-paying-jobs-for-people-who-love-to-be-outside.html



#### The 15 "high-paying" jobs...

Geographers

Landscape Architects

**Atmospheric Scientists** 

Geoscientists

**Environmental Engineers** 

Astronomers

Agricultural Engineers

Hydrologists

Zoologists/Wildlife Biologists

Farmers/Ranchers

**Environmental Scientists** 

Agriculture/Food Scientists

Cartographers/Photogrammetrists

Conservation Scientists

Surveyors

(continued on next page)

# NSPS News & Views (continued)

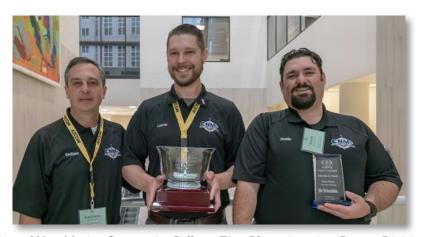
April 17, 2019 NSPS

#### 2019 NSPS Annual Student Competition attracts additional participants and sponsors

The National Society of Professional Surveyors (NSPS) held its 18th Annual Student Competition, on April 11, 2019 as part of the 2019 NSPS Spring Meetings in Arlington, VA. The 2019 competition topic was "Utilizing remotely sensed data in a modern surveying practice". Each team completed a project, prepared a technical report & poster, and gave a formal presentation to a panel of judges. Thirteen schools with undergraduate degree programs in surveying, mapping or geomatics participated in this year's competition.



University of Akron, First Place, Baccalaureate Degree Division



Central New Mexico Community College, First Place, Associate Degree Division

## Digital Coast Act introduced in Congress with NSPS support

Senators Baldwin (D-WI) and Murkowski (R-AK) were joined by Representatives Ruppersberger (D-MD) and Young (R-AK) in bipartisan/bicameral introduction of the *Digital Coast Act of 2019* (S. 1069/H.R. 2189). NSPS members advocated co-sponsorship of this legislation during the "2019 NSPS Day on the Hill." In support, NSPS Executive Director Curt Sumner said, "The provisions of the Digital Coast Act will significantly enhance the Digital Coast project through the creation of a sustainable program to utilize geospatial technologies to map and monitor the coastal waterways of the United States, providing an invaluable benefit to the public, and to the professionals whose charge is to protect their health, safety, and welfare."

(continued on page 36)



The **professional mapping** drone





# NSPS News & Views (continued)

April 17, 2019 NSPS

#### NSPS Engages President's Infrastructure Team at the White House

A delegation from among the NSPS Executive Committee members were granted an audience last week with the White House Specialist handling infrastructure as part of the National Economic Council which is tasked to lend expertise to the President. For the better part of an hour, the NSPS delegation discussed the surveying profession's vantage point on Infrastructure priorities with special emphasis on State and Local coordination with USDOT. Leading up to the meeting at the White House, the Chairman of the Senate Committee which is drafting the Infrastructure Bill had briefed NSPS membership. The White House recognizes NSPS' voice on Infrastructure and wants to continue to engage the Surveying profession with infrastructure efforts on the Hill.



NSPS delegation at the White House!

March 27, 2019 NSPS

#### NSPS begins 50-state legislative tracking

As a new service to its members and affiliate state societies, NSPS is implementing a program to track state legislation in every state legislature in the United States. Using an on-line technology known as GovHawk, NSPS's government affairs consultants, *John M. Palatiello & Associates, Inc.* will provide reports to NSPS and its state society member organizations on twice month basis when most of the state legislatures are in session, and monthly when activity slows down. The report will include a state-by-state summary of each bill, the sponsor, bill number, status, and a link to the text. The service will provide valuable information for the membership and individual state societies, either as a back-stop for those states that already use some service or have it provided by a lobbyist, or would be the only such service for those states that do not currently have a system for tracking their state legislature. This also provides members who are active in legislation in their states with valuable information on what is happening in other states which may plant seeds of legislative ideas and "cross-pollination" of good ideas to emulate in their own state, as well as tracking threats that may begin trending across several states.

(continued on page 39)

# 2019 Corporate Members

Phoenix Engineering & Surveying, LLCIndependence, MO Riggs & Associates, Inc
McClure Engineering CompanyN. Kansas City, MO
Buescher Frankenberg Associates, IncWashington, MO
Anderson Engineering, IncSpringfield, MO
George Butler Associates, IncLenexa, KS
Migar Enterprises, IncGrandview, MO
Bax Engineering Co., IncSt. Charles, MO
Cole & Associates, IncSt. Charles, MO
Bartlett & West, Inc Jefferson City, MO
Govero Land Services, Inc Imperial, MO
Burdine & Associates, IncArnold, MO
Zahner & Associates, Inc Perryville, MO
Allstate Consultants, LLCColumbia, MO
Anderson Survey CompanyLee's Summit, MO
Koehler Engineering &
Land Surveying, Inc
Amsinger Surveying, Inc Marshfield, MO
Musler Engineering CoSt. Charles, MO
Central MO Professional ServicesInc, Jefferson City, MO
Robert S. Shotts, IncLebanon, MO
Grimes Consulting IncSt. Louis, MO
Marler Surveying Co., IncSt. Louis, MO
Doering Engineering, IncSt. Louis, MO
Shaffer & Hines, IncNixa, MO
Affinis CorpOverland Park, KS
ABNA Engineering, IncSt. Louis, MO

Bowen Engineering & Surveying, Inc	. Cape Girardeau, MO
St. Charles Engineering & Surveying, Inc	_
Midland Surveying, Inc.	
Taliaferro & Browne, Inc.	
Cochran	-
Pickett, Ray & Silver, Inc.	St. Peters, MO
Whitehead Consultants Inc	Clinton, MO
Schlagel & Associates, PA	
Cardinal Surveying & Mapping, Inc	Cottleville, MO
Surdex Corporation	Chesterfield, MO
Bader Land Surveying, Inc	Ste. Genevieve, MO
West Wildwood Surveying, LLC	St. Louis, MO
Integrity Engineering, Inc.	
Poepping, Stone, Bach & Associates, Inc	Hannibal, MO
Cochran	Fenton, MO
Minnick Surveying, LLC	St. Louis, MO
Olsson, Inc.	
The Sterling Company	St. Louis, MO
Volkert, Inc	
Engineering Solutions	
Thouvenot, Wade & Moerchen, Inc	Swansea, IL
Cochran	
Powell CWM, Inc.	
Brungardt Honomichl & Co., P.A	Overland Park, KS
Cook, Flatt & Strobel Engineers	

Keith M. Brickey, P.L.S.

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#### Missouri Society of Professional Surveyors

Sandra C. Boeckman Executive Director

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Vice President

FAX 573-483-2777

Ph. 573-483-2777 Cell 573-883-6259

#### BADER LAND SURVEYING, INC. GERALD BADER

Missouri P.L.S.

16255 Sugar Bottom Rd.

Ste. Genevieve, MO 63670

## Claims to Land...(continued from page 28)

Instructions from Secretary of the Treasury Albert Gallatin prepared in accordance with the eighth section of the act of April 21, 1806, chapter 39, and sent to the Board of Commissioners with a letter, dated September 8, 1806 (American State Papers, Public Lands, Volume 3, page 356)

- 1. All claims derived from any grant, concession, order of survey, or other species of title, whether complete or incomplete, bearing date subsequent to the first day of October, 1800, must be rejected, unless they be embraced by the second section of the act of 2d March 1805.
- 2. No titles shall be considered as complete but legal French or Spanish grants, made and completed before the first day of October, 1800, regularly signed and issued prior to that date, by the governor general or intendant of the province of Louisiana, residing at New Orleans, and duly recorded at the proper office in New Orleans.
- 3. No claims other than those derived from complete titles, shall be admitted, unless the lands claimed were actually inhabited and cultivated on the 1st day of October, 1800; and by or for the use of the persons claiming the same, if such persons claimed by virtue of the 1st section of the act of 2d March, 1805; and, on the 20th day of December, 1803, and by the persons claiming the same, if such persons claimed by virtue of the second section of the said act.
- 4. All claims founded on the first section of the said act, must be derived from a written order, whether known by the name of concession, or any other denomination, issued by an officer duly authorized by the Spanish laws for the time being, to issue the same, and directing a tract of land to be surveyed for the party.
- 5. In every case where the tract thus claimed, shall contain a greater quantity of land than was generally allowed to actual settlers and their family, agreeably to the laws, usages, and customs of the Spanish Government, the claim shall be rejected, unless a duly authenticated copy of the ordinance, authorizing the officers to grant such greater quantity of land, shall have been produced and deposited with the Commissioners.
- 6. All claims presented under the first section of the act above mentioned, must be rejected, unless the concession, order, or warrant of survey, shall have been duly registered in the books, records, or minutes kept by the Spanish officer or officers for the purpose.
- 7. If the officer issuing such concessions, orders, or warrants of survey, shall have kept any books, records, or minutes, for the registering or noting of the concessions, orders, or warrants of survey, issued by him; any concession, order, or warrant of survey not registered or noted in its proper order, according to its date, in such books, records, or minutes, shall be considered "prima facie," as surreptitious or antedated, and the burden of the proof of its date and validity shall fall on the claimant.
- 8. If no books, records, nor minutes have been kept, in which the concessions, orders, or warrants of survey have been entered at the time when the same were issued, and in their proper order according to their dates, the burden of the proof of the date and validity of any such concession, order, or warrant of survey, shall fall on the claimant, whenever the agent of the United States shall object to the same on the ground of its being antedated or otherwise fraudulent.
- 9. Whenever it shall appear in evidence that the actual survey of any such concession, order, or warrant was made subsequent to the 1st day of October, 1800, and the date assigned to such actual survey, either on the plat or return thereof, or on the books or records of the officer acting as surveyor general, under the Spanish Government, shall be prior to the said 1st day of October, 1800, the concession, order, or warrant shall be rejected as fraudulent; and the abovementioned officer, acting as surveyor general, and also every other former Spanish officer, as well as every other witness, shall be obliged to answer every question put to him by the agent of the United States respecting any claim, the validity of which is disputed by the said agent.
- 10. No tract of land shall, in any instance, be granted under the second section of the act of the 2d March, 1805, to a person claiming land under the first section of the act, or under a complete French or Spanish grant.
- 11. The Commissioners will consider the opinion of the Attorney General of the United States, of the 12th of March, 1806, transmitted by the Secretary of the Treasury, in his letter of 26th March last, as part of these instructions; and they will revise and correct, in conformity with the said instructions and opinion, every former decision of theirs which may be inconsistent with, or contradictory to either.

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Highlight your work! Impress your friends! Make your momma proud! Prove to the bankers you are using that commercial loan!



"How" you may ask? By sharing photos, stories and news with Missouri Surveyor! It is really that simple. Just as this edition's cover features Missouri surveyors you and your work may be featured as well. All content is welcome! For the cover, high quality images in landscape format at an aspect-ration comparable to 17"x11" work best; stories and articles merely need to be in Microsoft Word.

# NSPS News & Views (continued from page 36)

March 27, 2019 NSPS

## **Surveyors Week garners media attention**

From *Forbes* magazine to *WMAR* television in Baltimore, MD, National Surveyors Week attracted news media attention to the profession of surveying and opportunities in the field for young people choosing a career.





# Missouri Society of Professional Surveyors

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