



MISSOURI SURVEYOR

A Quarterly Publication of the
Missouri Society of Professional Surveyors

Jefferson City, Missouri

December 2020

What's in this issue...

Christmas Poem	4
Surveying by State	5
Nolte Appointed to Board of Registration.....	10
Faculty Changes in the Surveying Program at State Tech	12
Claims to Land and the Opinions of the Recorder of Land Titles	14
Thank You to the Exhibitors	20
MSPS Awards the Myers Service Award to Gerald Bader	22
MSPS Honors its 2020 MVP	23
New Courses at State Tech on GIS and GNSS	24
Surveyors Stay Open for Business During the Coronavirus Pandemic	27
New Exhibit at State Museum Features a Historic Surveyor's Compass.....	30
NGS News & Events	32
NSPS News & Views.....	36

CALENDAR OF EVENTS

2021

February 24, 2021

Board Meeting
MSPS Office, Jefferson City

April 29, 2021

Board Meeting
Lodge of Four Seasons,
Lake Ozark, MO

April 30-May 1, 2021

43rd Annual Spring Workshop
Lodge of Four Seasons,
Lake Ozark, MO

October 14-16, 2021

64th Annual Meeting and Convention
Tan-Tar-A Resort, Osage Beach, MO

Additional Dates for Spring Workshop

April 27-May 1, 2022

May 3-May 7, 2023

May 1-May 5, 2024

Cover: Hari Anderson, Crew Chief with the Clayton Engineering Company “drives” a Sonarmite Hydrone RC boat across the water collecting data by sonar measurements to model a pond bottom. Tracking a prism atop the boat’s mast, a Trimble S6 robotic station measures positions at timed intervals with data wirelessly logged into the Trimble TSC7 controller on a tripod to Hari’s left. Significant was the equipment not used for this pond volume survey; waders! (photo by Crew Member Seth Barnhart)

Donald R. Martin, Editor



Notes from the Editor’s Desk

Donald R. Martin



Welcome to the December 2020 edition of *Missouri Surveyor*. As we begin the winter of our COVID discontent, MSPS has recently held a successful Annual Meeting. With that, our Society has a new slate of leaders and our old friend Tripod the three-legged groundhog joins all fellow members by congratulating our Officers in their new positions and the two new additions to the Board of Directors:

Earl Graham, President
Brad McCloud, Present Elect
Ray Riggs, Vice President
Robert (Bob) Anderson,
Secretary/Treasurer

Kirk Baldwin,
Board of Directors
Chris Ferguson,
Board of Directors

It is reliably reported that all MSPS office holders conceded their occupation of previous positions and agreed to peacefully relinquish their offices. The Nominating Committee reports that the rank-and-file electorate did not include more votes than members (might be a good idea to check those St. Louis County ballots), while the Quarantine Committee reported something but me and Tripod couldn’t understand a thing they said under their PPE. All we could hear were muffled mumblings from masked mouths moaning about mandates for more months. It is enough to make old friend peaceably parade on private property and participate in pyromaniac practices to pluck the purses of police in protests precluded from the plague of this pandemic by public policy.

We start with the first *President’s Message* from Earl Graham. He has taken the challenge of three more in stride. Our leader’s words are followed by a seasonal visit from our own white-bearded, jolly soul past President Chris Wickern in a return of his *’Twas the time before Christmas*. Next, POB Magazine shares the first in a series of stories titled *Surveying by State*. As the charter subject for this series, MSPS is well represented in *Land Surveyors in Missouri Celebrate History, Tradition*. After this comes an announcement by the Land Survey Division of the Board of Registration reporting that Governor Parsons has made a wise choice with *Nolte Appointed to Board of Registration*. Mr. Nolte is an MSPS past President. Our good Dr. Joe Paiva adds to announcements with the introduction of new surveying instructors with *Faculty Changes in the Surveying Program at State Tech*. These academic assignments are followed by another masterpiece by our expert on pre-statehood private land claims, Steven Weible. This time, it is *Claims to Land and the Opinions of the Recorder of Land Titles*. Reaching this edition’s middle pages, please make note of the list of friends and businesses who generously support our Annual Meeting in the photo array *Thank You to Our Exhibitors...and Speakers for making our 2020 Annual Conference a Success!*

Passing into the latter half of the publication, we begin with our 2020 Award recipients. Congratulations to the subjects of *MSPS Awards the Myers Service Award to Gerald Bader* and *MSPS Honors its 2020 MVP; Steve Weible Awarded Surveyor of the Year*. More news from the surveying program at Missouri’s premier technical college follows in *New Courses at State Tech on GIS and GNSS*. Be sure not to miss the comments from Representative Mayhew about the importance of State Tech to the surveying profession in our state! This is accompanied by a piece reflective of those making their way through the program in *J. Logan Dowd: A State Tech Success*. A timely article is up next in *Surveyors Stay Open for Business During the Coronavirus Pandemic* by NSPS lobbyist John Palatello. Then, before closing with news snippets from the NGS and NSPS we offer *New Exhibit at State Museum Features a Historic Surveyor’s Compass Family of Bob Myers Shares the Artifact*.

As is usually the case for the December editions, I close this message a few days before Thanksgiving. Among the “thanks” I will be giving is appreciation for the opportunity to work on this *Newsletter*. It is my pleasure and my honor. I hope it is worthy of your reading time and thought. Enjoy this edition and remember *Missouri Surveyor* is your voice; I welcome that which you may have to say or write. 🇲🇴

Donald

THE MISSOURI SURVEYOR

Published quarterly by the
Missouri Society of
Professional Surveyors

OFFICERS

Earl Graham President
Bradley McCloud President-Elect
Ray Riggs Vice President
Robert J. Anderson Secretary-Treasurer
Sandra C. Boeckman Executive Director
Susanne Daniel Past President
Michael D. Zahner NSPS Governor

DIRECTORS

Mark Wiley
Charles Quinby
Monnie Sears
Jonathan Cole
Kirk Baldwin
Christopher Ferguson

ADVERTISING RATES

	4 issues	1 issue
Full Page	650.00	200.00
Half Page (horizontal or vertical)	400.00	150.00
Quarter Page	250.00	100.00
Professional Card	50.00	N/A

COPY DEADLINE

March Issue — February 1
June Issue — May 1
September Issue — August 1
December Issue — November 1

EDITOR

Donald R. Martin
105 S. Capistrano
Jefferson city, MO 65109
Phone (573) 619-8702
E-mail: editor@missourisurveyor.org

PUBLISHER

Sandra Boeckman
722 E. Capitol Avenue
Jefferson City, MO 65101
(573) 635-9446 FAX (573) 635-7823
E-mail: msps@missourisurveyor.org

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

Earl Graham



If you are as big of a fan of music as I am you know that we lost some great musicians and entertainers over the last year. One of my favorites was Charlie Daniels. I heard Charlie say in an interview once that his father told him that if he could find a job that he thoroughly enjoyed then he would never work a day in his life. That is pretty much the way I feel about surveying. When I was younger, I think I was probably attention deficit and a job that was a new challenge and different everyday was just what I needed. I *love* this “job” and I always have.

When you have something you *love*, you like to talk about it. Most of my family and friends know better than to get me started. Most are interested at first but soon their eyes glaze over. Once, while attending a conference in Kentucky we were in the hotel room watching the news and a map of the counties of Kentucky came on the screen and my son asked “how come all the county’s in Kentucky are such odd shaped when the ones in Missouri are for the most part square”. Well after 15 minutes or so of hearing about original colonies, metes and bounds descriptions, and the GLO, I could see my son and my wife had had enough. I said all that to say that as much as I love to talk about surveying, I find it a little intimidating to try and write about it.

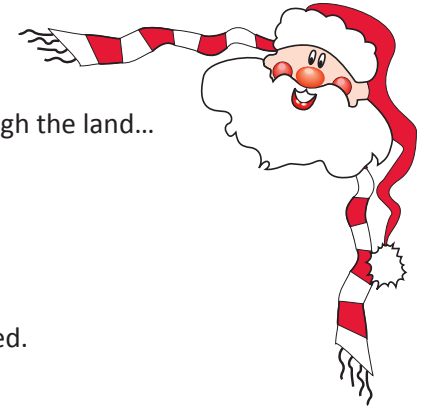
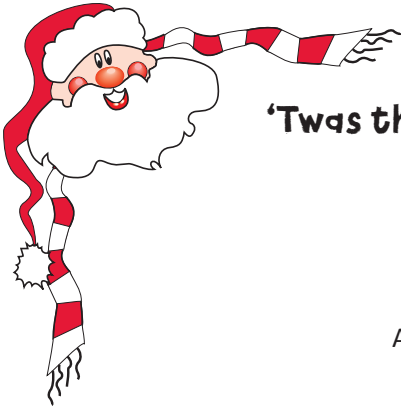
I think I would have to call our recent Annual Meeting a success! Even with all the restrictions I believe I heard that we had as many attending as we were allowed. The speakers were very good, and the information provided was incredible. I will be interested to hear any feedback from those who attended virtually to see what their comments might be. Also, I have not heard of anyone who came down sick after the meeting and that is very good.

From here on out with all the technology available it is going to be very easy to attend meetings and share information. While participation in our meetings will keep members informed, our Society also needs members to be active. I encourage everyone to sign up for a *committee*. It is a great feeling to be President, but the real work gets done in the *committees*. We always need new blood in leadership and that is the best place to start – please, join a *committee*. This is sort of like voting, if you do not vote you have not earned the right to gripe. If you are not on a *committee* working to change what you may not like or to make something better, then do you really have a right to moan about the outcome? I know we will anyway but maybe we should think about it.

I really don’t have my feet down yet to discuss any details, but I am looking forward to the coming year. I have heard so many people say they will be glad when 2020 is over but then I can also hear in the back of my mind my Mother chastising me for wishing my life away. It has been a tough one, but let’s make the most of what is left and then give our best to 2021!

I am proud to be a part of this organization and see a bright future ahead. 🇺🇸

Earl



'Twas the time before Christmas, when all through the land...

Corners were missing, confusion at hand.
Marks on the ground, could no longer be found.

Evidence of the past, did not seem to last.

Some were deemed lost with the passage of time.
And the meddlers had meddled, the land was unsettled.

Friends became foes with no monuments secure,
No Peace to be found, the *cadastre* unsure.

The family was nestled before hearth and fire,
When out near the fence, there arose such a clatter, I sprang to the deck to see what was the matter,

When what to my wondering eyes did gain?
A man marking boundaries in the public domain.
That moment I knew... a Surveyor by name.

More rapid than eagles the courses they came, as the humble Surveyor called each distance by name.
"Now Vera and Arpent, Rod and Chain", we go to find line and mark them quite plain.

The courses were laid and distances met,
Across the broad valley to the stone that was set,
The stone that was found had been hidden by time.

He ran the lines and bounded his way,
All the way round to the beginning point, they say.
Marks were found, restored to their place,
He set his caps, secure, for posterity's sake.

He marked the line plainly for all to see.
The only thing left was to draw up the plat and tend his aching knee.

The cold and snow he left behind him.
He knew he must eat... but was simply content to get off his feet.
He changed his wet clothes and warmed up his skin and that's when he knew, the map must begin.

With the findings he noted, and boots on the mat,
He sipped his hot coffee and drew up his plat,

His footsteps were large as he crossed that last hollow,
He leaves his marks for others to follow.

His work not complete 'till all was in order,
His map now enshrined in a book with the Recorder,

The commission fulfilled, the boundaries now settled,
Confusion was gone, despite those who would meddle.

In the time before Christmas, Peace was at hand.
Foes were again friends throughout all the land.

My humble prayer for my fellow surveyors,
Take heart your high calling, in you the public does trust.

May your lines be clear and monuments found.

- by *Chris Wickern, PLS*

Surveying By State

Land Surveyors in Missouri Celebrate History, Tradition

Susanne Daniel, PLS, President of the Missouri Society of Professional Surveyors, shares what it's like to be a land surveyor in the Show Me State.

October 2020, POB Magazine

The establishment of the Fifth Principal Meridian's "Initial Point" is one of Missouri's most celebrated land surveying projects. "Except the initial point is actually in the middle of a cypress swamp in Arkansas," explains Susanne Daniel, PLS, president of the Missouri Society of Professional Surveyors. As the story goes, deputy surveyors Prospect K. Robbins and Joseph C. Brown surveyed north from the mouth of the Arkansas River and west from the mouth of the St. Francis River, respectively.

"The point of intersection of the two lines was established on November 10, 1815," Daniel says. "Brown continued west along the base line, while Robbins continued north along the Fifth Principal Meridian Line. This began the survey of the Louisiana Purchase."



Members of the Missouri Society of Professional Surveyors.

The Bicentennial of the Fifth Principal Meridian Celebration became a major project of the Missouri Society of Professional Surveyors. "As part of the celebration," Daniel says, "a proper memorial for Joseph C. Brown was dedicated for Brown's previously unmarked grave site in the Historic Bellefontaine Cemetery in St. Louis, Missouri." Land surveying in Missouri requires a deference for history and tradition, but there is always more than what meets the eye in the Show Me State.

(continued on next page)

Surveying By State *(continued)*

What would you say is the majority type of work available to land surveyors in Missouri?

It is difficult to say. If you live and practice in an urban area, there is an abundance of construction-related work. If you live or practice in a more rural area, you will be overwhelmed with boundary work. There is also a niche for those of us that do flood certificates. If you really enjoy a challenge, there are plenty of boundary disputes as we native Ozarkers are as stubborn as our mules.

How has the MSPS developed and grown over the years?

Since I have been a member, I have seen the number of ways a member can participate in committees practically double. I credit our executive director, Sandy Boeckman with our success. We make a suggestion of something we should do and she just makes it happen. If it's a bad idea, she saves us from ourselves.

What do you think is affecting the growth of the land surveying profession the most? Lack of awareness? Lack of Education?

I think we are competing with professions and trades that aren't as difficult to learn or aren't as physically demanding. And how does one explain that rewarding feeling of recovering an original 1840's survey stone, saving a century farm from foreclosure or resolving a property line dispute between neighbors then to return years later and find the two parties best friends? It is difficult to sell a career in surveying in the scope of a 15-minute presentation on Career Day so we try to pique interest with our equipment. Unfortunately, once the potential candidate discovers that we spend more time chopping our way through dense multi-floral roses and blackberry briars than flying drones, they lose interest.

What rules or laws are on the books or up for review would you say threaten the survey profession in Missouri?

We have few issues that we have been dealing with, but, again, the main threat is not enough surveyors. We are already experiencing this and expect that things will get worse. We are reviewing our licensing requirements to determine if our current level of experience is a deterrent for potential candidates. The problem is finding that balance where our experience requirement is sufficient to protect the public without discouraging those wishing to become land surveyors. This has led to some heated debates.



Members of the Missouri Society of Professional Surveyors.

I can only imagine. The surveyors around the country seem to regularly share in this heated debate.

Another issue that we have had to deal with is exactly who can legally write a boundary description. I'm not sure if this threatens our profession or ensures that we will always have too much work. Until recently, realtors, developers, attorneys, utility companies and title companies were all writing their own property descriptions and creating conflicts.

(continued on page 8)



RECOVERY IS COMING.
Are you ready?

Your Solutions Partner - We Can Help!

Topcon Solutions believes in being more than a technology solutions provider. We are committed to being your local partner. We know that economic recovery is coming. Everyday we are helping firms be ready for the work to come rushing back. Whether it's better technology to make you more efficient, or training for your teams to get the most out of what you already have, we can help.

topconsolutions.com/recovery

**ASK ABOUT OUR CUSTOMER
RECOVERY PROGRAM
(855) 289-1772**

**TOPCON
SOLUTIONS**
Store

Surveying By State *(continued)*

ATL notes Aliquot descriptions were OK as long as they didn't involve a fractional section, but metes and bounds descriptions were often based on a tax map or coordinates from "Google Earth" instead of a survey.

Fortunately for our society, several of our members have served or are serving in the Missouri Legislature. We asked one of them to sponsor a bill to limit who could write boundary descriptions. Of course, there are more attorneys serving in the Missouri House than surveyors, and they took exception to the proposed restriction on their practice. They not only wanted to continue writing descriptions without a survey but refused to identify themselves to avoid liability should their descriptions be found faulty.

If I have the story right, an attorney tried to amend our bill by proposing that attorneys should be allowed to practice land surveying since the Missouri Bar exam included several questions regarding boundary surveying. To get his point across, our Rep. introduced a bill that members of the Missouri Legislature would be allowed to sit for the Missouri Bar exam after serving 2 years as a state representative or senate lawmaker. It was worthy of a chuckle on the evening news, but in the end language was stricken and bills were rescinded. We now sign and seal our property descriptions and certify that our work is based on an actual boundary survey.

If you are interested in land surveying work or advocating around survey issues in Missouri, what is the best way to get involved?

Join the Missouri Society of Professional Surveyors and come to a workshop or conference. We try to keep our dues and fees reasonable and our topics entertaining as well as informative. We have local chapters in Kansas City, St. Louis, Springfield, and Joplin, as well as in central and southeast parts of the state.

Do survey professionals need their license to be involved with the Missouri Society of Professional Surveyors?

No, we have different types of membership, and we appreciate and encourage involvement.

Tell me about the Missouri Society of Professional Surveyors' membership. How has it grown?

We are experiencing a slight but steady decline as our membership ages. Missouri currently has about 800 members. We welcome everyone and don't really pay attention to ethnicity, but our demographic is largely older white men. Those of us that do not fit that description are overwhelmed with support and encouragement. Our focus is on making sure that we are licensing new surveyors to carry on our work and that we are serving as a forum for the exchange of ideas and best practices so we can better serve our members. 🇺🇸



Joseph E. Clayton, PLS, at the Osage Treaty Line cave.

ZAHNER

AND ASSOCIATES, INC
PROFESSIONAL LAND SURVEYORS

DRIVING RESULTS

your partners in
**MOBILE LIDAR &
TERRESTRIAL SCANNING**



Learn more about how Zahner & Associates can help you provide your clients with safer, faster, more accurate data than ever before.

200 Zahner Place
Perryville, Missouri
573-547-1771
info@zahnerinc.com

Visit our website: www.zahnerinc.com

Nolte Appointed on Board of Registration

from Dimensions Newsletter, Fall/Winter 2020

Mark W. Nolte was appointed on September 21, 2020, by Governor Mike Parson to serve as a member of the Professional Land Surveying Division of the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects. He replaces Michael Freeman, PLS, who retired from the Board on January 31, 2020. Mark was born in Lafayette County, Missouri, and has lived in the Kansas City area for six years. He is married to Elizabeth Steel and has one daughter, Lily, who works for the Federal Reserve Bank in Kansas City.

Mark attended the University of Missouri-Columbia, graduating in 1981. His career path led him to Illinois, Texas, and Florida while working in the engineering and construction fields. In 1990, he returned to his hometown of Higginsville, Missouri, to pursue his chosen field of land surveying. Licensed in Missouri in 1992, Mark began Nolte Land Surveying, providing mostly rural and residential surveys.

Along with serving on several boards and committees, Mark was the elected County Surveyor of Lafayette County for 24 years and the Deputy County Surveyor of Saline County for several years. He also served on the Lafayette County C-1 School Board for six years. In 2013, Mark sold Nolte Land Surveying and attended Law School at the University of Missouri School of Law-Columbia for two years. In 2015, Mark was employed by The Kansas City Southern Railroad as Manager of Real Estate Field Services. In 2020, he accepted his current position as Program Manager, Land Surveying at Tukup Technologies, LLC. Tukup Technologies is a tribally-owned 8(a) technology company that develops innovative solutions tailored to clients' specific needs. Tukup delivers a full range of geospatial, land surveying/unmanned aircraft systems (UAS) and reality capture/indoor mapping to federal, state, municipal and commercial clients across the country.

Mark is the Past President of the Missouri Society of Professional Land Surveyors and was awarded the honor of Surveyor of the Year and Legislator of the Year in 2011. Mark was instrumental in moving the State Land Surveyor's office from the Department of Natural Resources to the Department of Agriculture during his tenure in office. Mark is currently licensed in Missouri, Idaho, Utah, Colorado, New Mexico, Nebraska, Kentucky, and South Dakota.

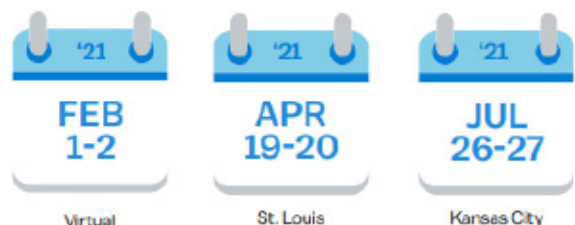
Mark enjoys fishing and wood-working and is an instrument-rated private pilot, with over 1,000 hours of



NEW BOARD MEMBER
Mark W. Nolte, PLS

flight time to both coasts and Canada, as well as many interesting destinations in between. Mark is both honored and humbled to have been chosen to serve on the Board and looks forward to engaging with the other members in pursuit of protection of the public welfare. 🇺🇸

Schedule of Upcoming Board Meetings





SEILER

GEOSPATIAL DIVISION
www.seilergeo.com

Service/Repair

Since 1945

- GPS/GNSS/GIS • Free Estimates
- Data Collectors • NIST Certification
- Lasers (Pipe, Grade, Interior)
- Levels • Clean, Relube, Calibrate
- Robotic and Total Stations

Email: servicedept@seilerinst.com
Toll Free: 877-330-6303



Kansas City • Indianapolis • Milwaukee • Omaha

Faculty Changes in the Surveying Program at State Tech

by Joe Paiva, October 2020

There are now three faculty at State Technical College of Missouri (Linn, Mo.) teaching courses for students wishing to become licensed professionals in surveying: Mike Oetterer, Ryan McDowell and me.



Mike Oetterer, is an instructor at State Tech where his involvement as faculty began as a lab instructor for Surveying I and II when I was teaching them. Needing to shed some teaching load so that I could help move the 2-year degree in surveying program submission for approval at State Tech, Mike now handles the primary instruction for Surveying I and II as well as drafting courses for Civil, Architectural, Structural Steel, and Mechanical drafting.



Mike Oetterer

Mike has a two-year Associates of Applied Science Degree in Design Drafting from State Tech, and is working on his Bachelor's degree from CMU (Central Methodist University) for business management, hoping to graduate Summer 2021. He is also working on professional licensure, having completed his 12 semester hours of

surveying coursework at State Tech. He plans to take the FS exam in 2021.

Mike is active with service work at State Tech, including Faculty Senate representative for the Civil Division, advisor for the drafting students, and advisor for the Home Builder's Club.

His work experience includes 20 years as a residential and commercial carpenter in the St. Louis area before returning to college in 2012. He worked as an intern for MODOT in Jefferson City in the survey department. After graduating from State Tech, he worked for BFA (Washington, Mo.) for three years before returning to State Tech as a drafting instructor. He still works at BFA in the summer months.

The newest addition is Ryan McDowell, *who if we have enough enrollment*, will teach Introduction to GIS and GNSS beginning January 2021, and in the fall, Advanced GIS and GNSS.



Ryan McDowell

Ryan is a Professional Land Surveyor (Mo., Ark., Kan., Colo. and Ky.). He has nearly 20 years working with public and private sector surveying clients, accustomed to

managing extremely large surveying projects from proposal to deliverables. In his birth state of Kentucky, he completed his B.S. degree at Transylvania University (Lexington, Ky.). He has also received the honor of being awarded the commission of a Kentucky Colonel by the Governor of Kentucky. It is recognition of an individual's noteworthy accomplishments and outstanding service to our community, state, and nation.

Ryan has furthered his education beyond his B.S. at St. Louis Community College and the University of Wyoming earning 30 credit hours in Land Surveying courses. In addition, in 2018, he received a Graduate Certificate in Survey Engineering from the University of Maine, for completion of advanced graduate level courses on LiDAR, photogrammetry, geodesy and advanced computations. Believing that learning does not end with licensure, he continues to further his professional education: In 2018 he completed the professional program in UAS operations from Embry-Riddle Aeronautical University, and holds a FAA Part 107 Remote Pilot license; he is now working towards his CFeds Certification; as if that's not enough, he's also planning taking his Project Management Professional (PMP) Certification exam in 2021.

Ryan "day job" is Project Manager for Surveying and Mapping, LLC at their St. Louis, Mo. office where he leads the Geospatial Division covering Mobile LiDAR, Aerial Mapping, UAS LiDAR/Photogrammetry/Inspections. His professional academic and work backgrounds make him a great candidate to educate tomorrow's next surveyors. 🇺🇸



**AUTODESK® ARCHITECTURE,
ENGINEERING & CONSTRUCTION
COLLECTION**

Let us help you optimize your design workflows.

PRODUCTS & SERVICES OFFERED:

- Autodesk Software Solutions
 - Handheld Scanners
 - Hands-on Custom Training
 - Template Creation
 - Workflow Analysis
 - Skills Assessment Testing
 - Customer Content Creation
 - Complete Support- before, during, & after every sale.
 - Services and Sales via Seiler Instrument Geospatial; Robotic Total Stations, Scanning, Imaging, GNSS and Drone Technology
-



Follow us:



ST. LOUIS • CHICAGO • KANSAS CITY • MILWAUKEE • INDIANAPOLIS • OMAHA

cad@seilerinst.com | 1-888-263-8918 | www.seiler-ds.com

Claims to Land and the Opinions of the Recorder of Land Titles

by Steven E. Weible, PLS, October 2020

The Board of Revision finished its work in January 1812 and sent its final report to the Secretary of the Treasury in the hands of Clement Penrose, one of the commissioners (Marshall, Vol. 2, pg 218; *Territorial Papers*, Vol. 14, pg 538). In addition to delivering the report, Penrose offered a classification of the claims that were not approved and included his personal recommendations. He acknowledged that there were claims that lacked merit and should never be confirmed, but that many claims, although not meeting the requirements of the existing legislation, did have merit and in all justice should be approved by some future legislation. His classification of claims and recommendations along with the classification of claims prepared by the clerk of the Board of Revision were presented to Congress in April 1812 (ASP:PL Vol. 2, pg 377).

Congress considered the recommendations and consequently passed the Act of June 13, 1812, chapter 99, *An Act making further provision for settling the claims to land in the territory of Missouri* (U. S. Statutes at Large, Vol. 2, pg 748)(The Territory of Louisiana had been renamed the Territory of Missouri by the Act of June 4, 1812, chapter 95, *An Act providing for the government of the territory of Missouri*, U. S. Statutes at Large, Vol. 2, pg 743).

Section one of the act confirmed to the inhabitants of the respective towns or villages the rights, titles and claims to town or village lots, out lots, common field lots and commons that had been inhabited, cultivated or possessed before December 20, 1803. The towns and villages recognized as existing prior to that date and to which the act applied were Portage des Sioux, St. Charles, St. Louis, St. Ferdinand, Village á Robert, Carondelet, Ste. Genevieve, New Madrid, New Bourbon, Little Prairie and Arkansas in the Territory of Missouri (ASP:PL Vol. 2, pg 379). The out boundary of each town or village, including the out lots, common field lots and commons, were to be surveyed by the principal deputy surveyor.

Section three of the act confirmed certain claims based on settlement and cultivation that had not been approved by the Board of Revision. Included were those claims in which permission to settle from the proper Spanish officer had not been proven and those claims that had been inhabited on December 20, 1803, but had not yet been cultivated. These claims were confirmed where it could be shown that they were inhabited by the claimant or someone on behalf of the claimant before December 20, 1803 and the land had been

cultivated in 8 months after that date. In addition, those claims that had not been confirmed merely because they exceeded 800 arpents were confirmed to the extent of 800 arpents.

Section four of the act directed the recorder of land titles to examine the records of the Board of Revision and make a list of all of the claims that qualified for confirmation by the preceding section three. The completed list was to be sent to the Commissioner of the General Land Office (which had been created by the Act of April 25, 1812, chapter 68, U. S. Statutes at Large, Vol. 2, pg 716) and sufficient information was to be provided to the principal deputy surveyor so that a boundary survey could be performed. Upon completion and return of the survey to the recorder of land titles, a certificate was to be issued with which a patent could be obtained.

Section seven of the act allowed an additional opportunity to provide written notice and evidence for claims that had not yet been filed with the recorder of land titles. Claimants had to be actual settlers on the land that they claimed. The deadline for filing was set for December 1, 1812.

Section eight of the act gave the recorder of land titles the authority to perform the same functions as the Board of Commissioners in examining evidence and rendering a decision on all those claims that were authorized to be filed by the preceding section seven along with any claims that had previously been filed, but not decided upon by the Board of Revision. All of the decisions of the recorder of land titles were subject to revision by Congress. Upon completion of the work, the recorder of land titles was to submit a report to the Commissioner of the General Land Office, detailing the evidence presented for each claim and his recommendations as to which should be confirmed. The report would then be presented to Congress for their final determination. The recorder of land titles would be paid fifty (50) cents for each claim examined and decided upon and an additional five hundred (500) dollars to be paid after the submission of his report.

Frederick Bates completed his list of claims that satisfied the requirements for confirmation as set out in the Act of June 13, 1812, chapter 99, and sent it to the Commissioner of the General Land Office, Edward Tiffin, on November 20, 1812 (*Territorial Papers*, Vol. 14, pg 607).

Claims to Land *(continued)*

For those that had filed notice of a claim with the recorder of land titles, but had not yet presented any testimony or written evidence to support their claim, more time was allowed by the Act of March 3, 1813, chapter 44, *An Act allowing further time for delivering the evidence in support of claims to land in the territory of Missouri, and for regulating the donation grants therein* (U. S. Statutes at Large, Vol. 2, pg 812). The new deadline was set for January 1, 1814 and the recorder of land titles was to handle these claims in the same manner as directed by the previous Act of Congress.

In addition, section four of this act granted 640 acres to all settlement right claims that had previously been confirmed for a quantity less than 640 acres. However, this provision did not apply to those claims in which the acknowledged and ascertained boundaries of the tract claimed were less than 640 acres. These “donation grants” were to be surveyed by the principal deputy surveyor.

Communication regarding these new developments in Congress was slow to reach the District of Arkansas in the southern part of the Territory of Missouri. According to Henry Cassidy, notice of the Act of June 13, 1812, chapter 99, was not received in the District of Arkansas until about October 20, 1812. He promptly left Arkansas on October 29, 1812 with about fifty (50) claims that he was authorized to have filed with the recorder of land titles. He was accompanied by five others until they reached a crossing of the St. Francis River, which was flooded and impassable as a result of damage done by the recent earthquakes. His companions turned back, but Mr. Cassidy continued on alone. Sickness and bad weather delayed his arrival at the mouth of the St. Francis River until December 7, 1812, already too late to make the December 1, 1812 deadline. He managed to reach the District of New Madrid by water and then proceeded to St. Louis by land. He gave a deposition of his difficulties at St. Louis on January 23, 1813 with a plea for some provision to accept the claims that he had delivered from the District of Arkansas (*Territorial Papers*, Vol. 14, pg 623).

Congress recognized the difficulties of the claimants living in the District of Arkansas and passed the Act of August 2, 1813, chapter 59, *An Act giving further time for registering claims to lands in the late district of Arkansas, in the territory of Missouri, and for other purposes* (U. S. Statutes at Large, Vol. 3, pg 86). The time for filing notice and written evidence of claims was extended to January 1, 1814 and the recorder of land titles was to handle these claims in the same manner as directed by previous acts of Congress. This act also allowed claimants until July 1, 1814 to provide testimony for any claims that had already been filed under former acts of Congress.

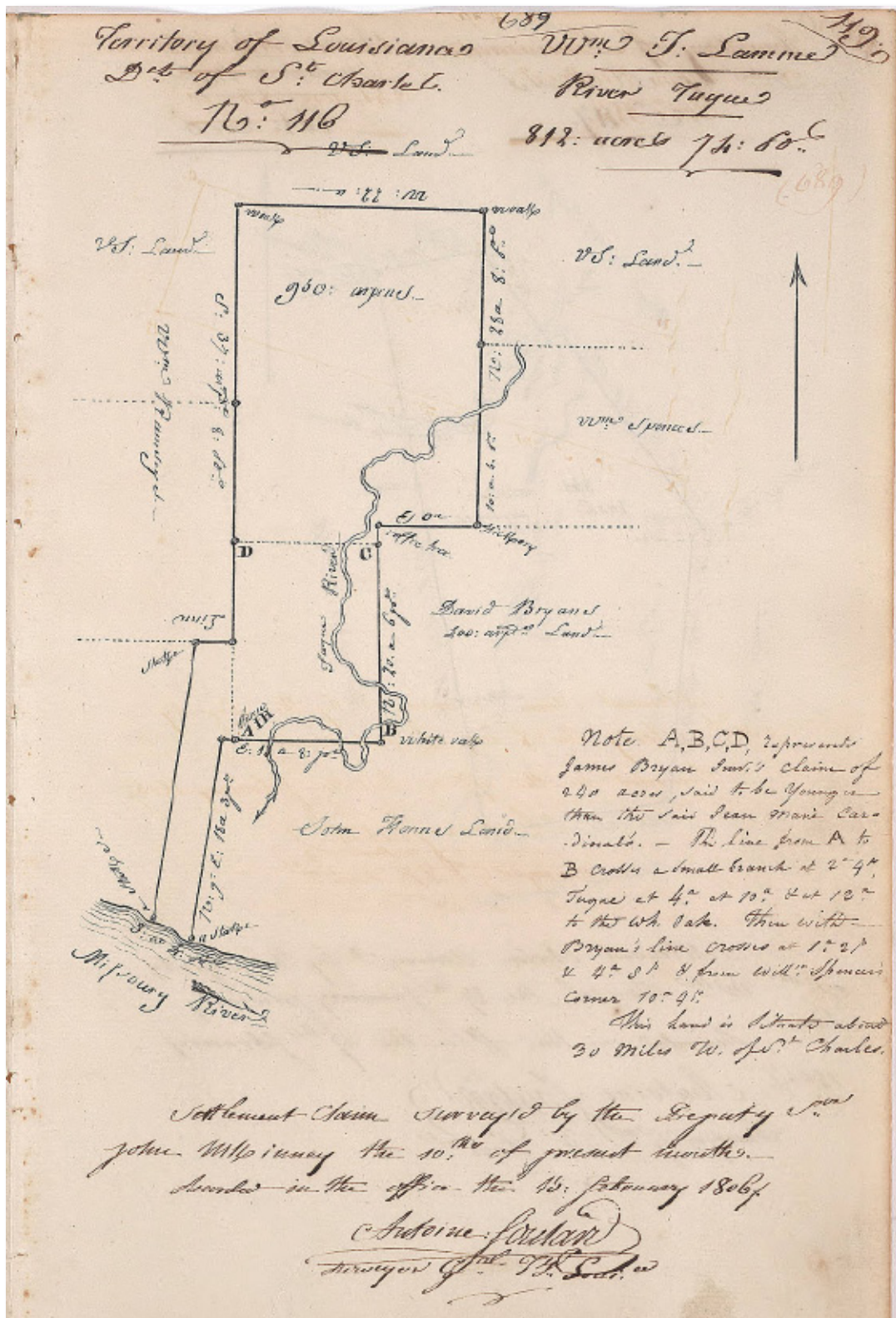
Upon further examination of claims that had been previously rejected by the Board of Revision, Congress made provision for the confirmation of additional classes of claims by passing the Act of April 12, 1814, chapter 52, *An Act for the final adjustment of land titles in the State of Louisiana and territory of Missouri* (U. S. Statutes at Large, Vol. 3, pg 121).

Section one of the act confirmed those claims that were based on an incomplete French or Spanish grant or concession, warrant or order of survey that were granted before March 10, 1804, where the claimant was actually resident in the territory at the time of the grant. The concession, warrant or order of survey had to be for a specific location or the tract had to have actually been located or surveyed before March 10, 1804 by a surveyor duly authorized by the government making the grant. No claim that had been previously determined to be antedated or otherwise fraudulent would be confirmed under this section. The claim was limited in size to one league square and those claiming under settlement right were not eligible. Confirmations under this section could not interfere with claims that had already been confirmed by the Board of Revision.

Section two of the act confirmed those claims based on settlement right that had previously been rejected for not having been inhabited on December 20, 1803.

Section three of the act directed the recorder of land titles to make out an order of survey to the principal deputy surveyor for each tract confirmed by this act that had not been previously surveyed. The recorder of land titles was to provide the principal deputy surveyor a proper description of the tract with the quantity, locality, boundaries and connection to other tracts. When the survey was completed, the recorder of land titles was to issue a confirmation certificate with which a patent could be obtained from the General Land Office. The recorder of land titles was entitled to charge the claimant one dollar and fifty cents for an order of survey and certificate and one dollar for a certificate without an order of survey.

Section four of the act required the principal deputy surveyor to perform the ordered surveys at the expense of the claimants. Completed plats were to be sent to the recorder of land titles and the Surveyor General of the United States, who would then forward a copy to the commissioner of the General Land Office.



A boundary survey, dated February 10, 1806, of a tract of 950 arpents (about 808 acres) claimed by William T. Lamme under Jean Marie Cardinal as a settlement right. The Board of Revision approved this claim, but only for 300 arpents (about 255 acres). The Act of March 3, 1813, chapter 44, extended the confirmation to 640 acres. (Courtesy of the Missouri State Archives, Missouri Digital Heritage)

(continued on next page)

Claims to Land *(continued)*

For those who had occupied a tract of land not claimed by anyone else and who had continued to actually inhabit and cultivate it, section five of the act allowed the right of pre-emption in the purchase of the tract.

Frederick Bates notified the Commissioner of the General Land Office, Josiah Meigs, in a letter, dated March 30, 1815, that he was hard at work on a comprehensive report addressing all of the requirements of the several successive acts of Congress. Each act required additional work to be done and the records that had to be reviewed were quite voluminous and tedious. He hoped to submit the final report in the summer or fall of that year (*Territorial Papers*, Vol. 15, pg 21).

Frederick Bates further corresponded with Josiah Meigs in July and August 1815, expressing some uncertainty about the claims intended to be confirmed by the Act of April 12, 1814, chapter 52, and the principles of selection that should be applied. He had enlisted the help of Bartholomew Cousin from Cape Girardeau as a clerk and translator of foreign languages and expected to complete the final report by November 1, 1815 (*Territorial Papers*, Vol. 15, pg 65, 75, 77, 82).

Frederick Bates had not yet completed his comprehensive report, but he made a submission to the Commissioner of the General Land Office, dated November 1, 1815, concerning a general notice to the recorder of land titles for 312 claims submitted by William Russell on November 30, 1812. Russell had managed to obtain a conveyance from each of the original claimants, whose claims appeared to be based on possession, inhabitation and cultivation. The report identified only 30 claims with appropriate evidence of ownership. Of those 30 claims, twenty-one (21) claims were approved for 640 acres, one claim was approved for 600 arpents and one claim was approved for 700 arpents. The remaining seven claims were rejected. Ownership was not proven for two hundred seventy-two (272) of the claims and 10 claims were abandoned by Russell (ASP:PL Vol. 3, pg 325).

Frederick Bates personally delivered to the Commissioner of the General Land Office his comprehensive final report, dating it February 2, 1816 at Washington City (*Territorial Papers*, Vol. 15, pg 119; ASP:PL Vol. 3, pg 274).

The first section of the report listed 586 claims to town or village lots, out lots, common field lots and commons that had been rejected by the Board of Revision, but were recommended for confirmation under the first section of the Act of June 13, 1812, chapter 99.

The second section of the report listed 236 claims based on settlement right that had been approved by the Board of Revision for a quantity less than was claimed and less than 640 acres. For example, William T. Lamme claimed 950 arpents (about 808 acres) of land under Jean Marie Cardinal and was approved for only 300 arpents by the Board of Revision under certificate number 758. These claims were recommended for confirmation to the extent of 640 acres under the fourth section of the Act of March 3, 1813, chapter 44.

The third section of the report listed 384 claims based on concessions and orders or warrants of survey that were recommended for confirmation under the first section of the Act of April 12, 1814, chapter 52.

The fourth section of the report listed 517 claims based on settlement right that were recommended for confirmation under the various provisions of the Act of June 13, 1812, chapter 99, the Act of March 3, 1813, chapter 44, the Act of August 2, 1813, chapter 59, and the Act of April 12, 1814, chapter 52.

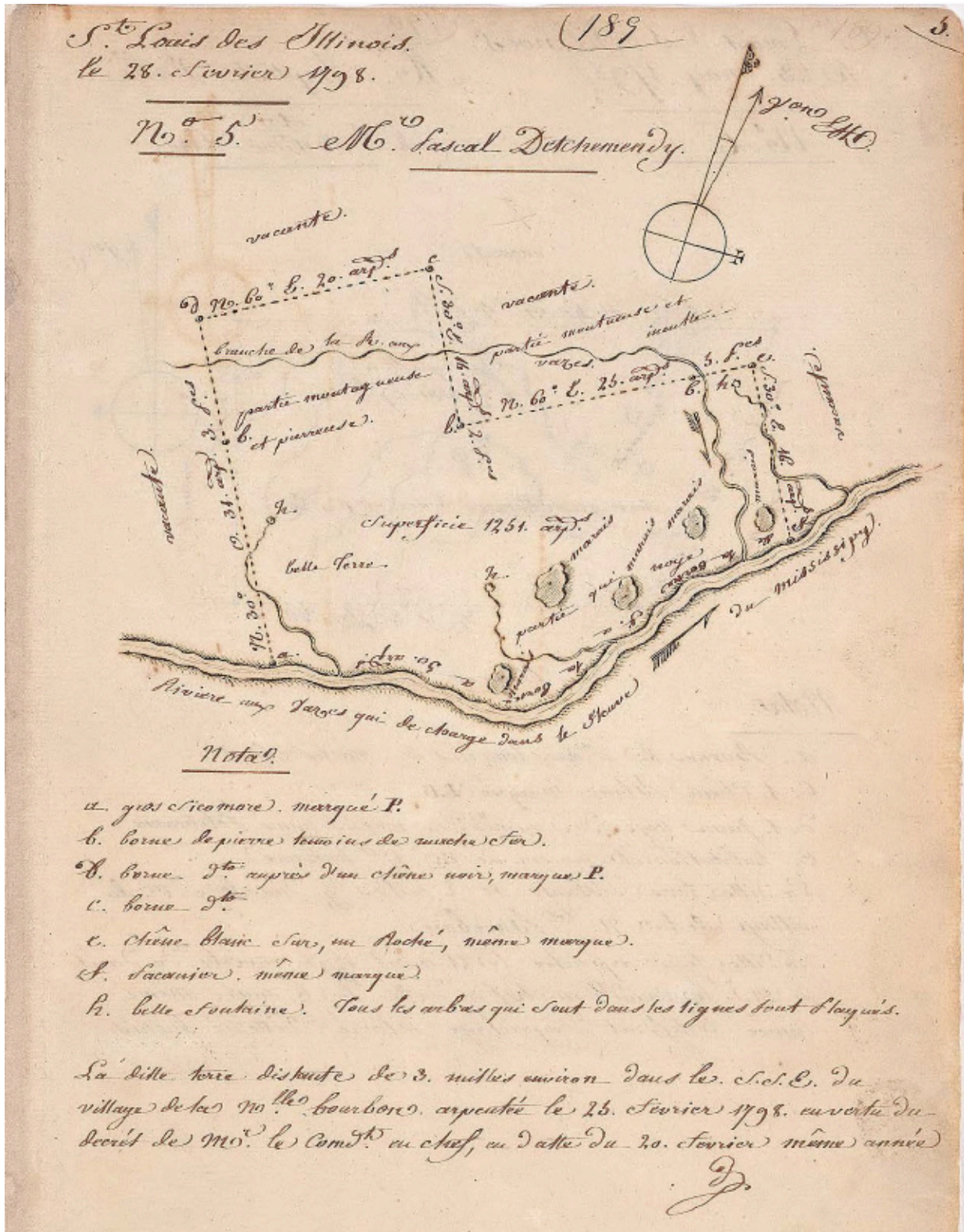
The fifth section of the report listed 476 claims based on settlement right that were rejected by the Recorder of Land Titles and not recommended for approval.

The sixth section of the report listed 27 claims based on concessions and orders or warrants of survey that were rejected by the Recorder of Land Titles and not recommended for approval.

All of the claims in the two reports of Frederick Bates that were recommended for approval were confirmed by the second section of the Act of April 29, 1816, chapter 159, *An Act for the confirmation of certain claims to land in the western district of the state of Louisiana and in the territory of Missouri* (U. S. Statutes at Large, Vol. 3, pg 328). The third section of the act further provided that any confirmed claim that had not yet been issued a patent was to receive a certificate after the claim had been located and surveyed from which a patent could be obtained. 🟩

SOURCES

Marshall, Thomas Maitland, *The Life and Papers of Frederick Bates*, Missouri Historical Society, 1926
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



A boundary survey, dated February 25, 1798, of a tract of 1251 arpents (about 1064 acres) conceded to Pascal Detchmendy by the Commandant of the Village of New Bourbon. The Board of Revision rejected this claim, but it was later confirmed under the provisions of the Act of April 12, 1814, chapter 52. (Courtesy of the Missouri State Archives, Missouri Digital Heritage)

Thank You to Our Exhibitors...

Carlson Software

Geo-Tronics of Kentucky

HubTack, Inc.

Javad GNSS

Klein Survey Systems

Laser Specialists, Inc.

**MO Dept. of Agriculture-
Land Survey Program**

Ozark Laser & Shoring

Seiler Instrument Company

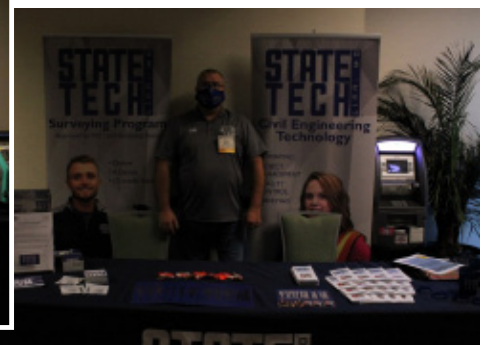
**State Technical College of
Missouri**

Surveyors Materials

Topcon Solutions Store

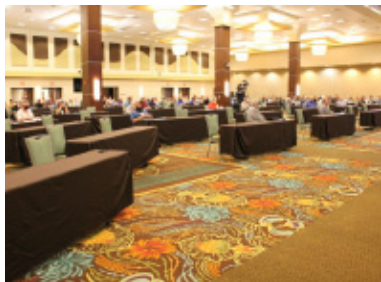
Transit & Level Clinic

Zahner & Associates



...and Speakers for making our 2020 Annual Conference a Success!

Joseph E. Clayton, PLS
Dr. Richard Elgin, PS, PE
Ron Heimbaugh, PLS
Gary R. Kent, PLS
Harry Styron, JD
Thompson Webb, PS
Donald A. Wilson



MSPS Awards the Myers Service Award to Gerald Bader

The *Robert E. Myers Memorial Service Award*. Missouri surveyors understand the paramountcy associated to this honor simply by its name. So preeminent, so esteemed, so treasured, this recognition respectfully bears the name of the grand gentleman of Missouri surveying, a Missouri Society of Professional Surveyors President, and our charter State Land Surveyor, Robert E. Myers. Presented each year on behalf of this society's rank-and-file by the Awards Committee, this award is bestowed upon the MSPS member appraised to have given exemplary service and dedication to the surveying profession and to this society throughout their career. It is so deemed that most deserving of honor in 2020 is a fellow member held in high regard as a land surveyor and leader in MSPS. Our *Robert E. Myers Memorial Service Award* honoree is **Gerald Bader** of Ste. Genevieve.

Known throughout our organization by the nickname "Duck," he is the President of Bader Land Surveying. Duck is an MSPS past President and former member of the MSPS Board of Directors. He has served on the Trig Star, Standards, Legislative, History and County Surveyors Committees. Elected as the Ste. Genevieve County Surveyor seven times he has served as President of the Missouri Association of County Surveyors (MACS) for three terms.

Bader started his career in the surveying and mapping arts as a supervisor for the development of tax assessment maps throughout several Missouri and Kansas counties in the early 1980's. By 1986, he was working full-time in *the field* first as a surveying technician, then instrument operator and finally survey supervisor. While working he studied the required college coursework at St. Louis Community College – Florissant Valley and the then University of Missouri – Rolla. He attained licensure as a Missouri Land Surveyor in 1995. Newly licensed, Duck started his firm in 1996. Well-versed in all surveying disciplines, Gerald is proudest of his efforts to perpetuate the USPLSS and has

been active in restoring and re-monumented hundreds of original corners. He has been a contributor to the *County Surveyor Cooperative Remonumentation Program* and frequently the *Private Surveyor Remonumentation Program* since 1996.

Duck is a surveying historian particularly knowledgeable on land grants of Upper Louisiana. He led efforts to honor the surveyor of the 5th Principle Meridian, Prospect Robbins, including the setting of a commemorative granite bench in the Ste. Genevieve Memorial Cemetery. Gerald is renowned for his in-character portrayals of PK Robbins for local civic organizations and at the annual *Déjà vu Spirit Reunion* at the cemetery. He also coordinated MACS re-monumentation of the Tri-State corner in 2004. Along with his historical and commemorative activities, Mr. Bader is a frequent contributor to the MSPS newsletter, *Missouri Surveyor*. There he has shared engaging tales of his surveys, the lessons he has learned and the advice he would give to the benefit of his fellow surveyors.

Gerald and his lovely wife Denise make their home in Ste. Genevieve and they are the proud parents of two; Brett and Alina.

For his dedication to land surveying and our Society, Missouri Surveyor is proud to feature this recipient of the Robert E. Myers Memorial Service Award, Professional Land Surveyor, **Gerald Bader**. 🇺🇸



Thank You,

A couple years ago I was surprised, now I'm in shock. The plaque may have my name on it, but I did not earn this award by myself. There is a long list of people who supported the many projects over the years. I will accept this award on behalf of all of you. There are too many to list and if I tried, no-doubt I would leave someone out. Thank you to the County Surveyor's; a great group of surveyors and friends. Thanks to MSPS past President and chair of the Awards Committee, Chris Wickern, committee members, MSPS officers and members of the Board for this honor.

As far as portraying PK; I would like to thank the "old surveyor", Norman Brown for all the stories and for being my inspiration. And to Dan Lashley for saying "Bader, just do it".

And of course, to Robert E. Myers the man who had a vision, "The Land Survey Program". Thank you, Mr. Myers for your dedication and desire to protect the USPLSS and surveying across Missouri. We all walk in your shadow.

On the personal side, for their support: to my wife Denise and my children Brett and Alina. I also want to thank the gentleman I work with every day, Myron Naeger, Thank You!

Congratulations to Steve Weible recipient of the Surveyor of the Year Award. I've enjoyed the many articles over the years; you have earned this award.

Sincerely Gerald "DUCK" Bader, PLS2544

MSPS Honors its 2020 MVP

Steve Weible Awarded Surveyor of the Year

The *Surveyor of The Year* award has been presented annually to a dedicated member of MSPS since 1987. The recipient is one who gives their time and exudes effort and dedication to land surveying, while working within the society for the betterment of the profession. These prerequisites are fulfilled indeed by this, our 2020 designee as the MSPS *Surveyor of the Year*, **Steve Weible**.

Member contributions to our Society may come in many forms. Some may lead a training session, some may chair a committee, others may facilitate an outreach event. And then some show you. They don't teach you how, they don't lead you, they don't make a show of it; they simply do it and share their example. Doing it and sharing it is what Mr. Weible has done so well in 2020 and the years preceding. As most members are aware, Steve has authored an ongoing series of detailed, scholarly articles published in *Missouri Surveyor* which offer to readers a master's course in early surveys and private land claims in our state. He has shown us core information needed to walk in the footsteps of our predecessors in surveys.

In an example of being shaped by where he is from, Steve Weible may have been destined to become a sage of Missouri's oldest land claims. A son of rural Missouri, Steve was raised in Sainte Genevieve County in a home located within a US Survey, the modern expression of private land claims once governed by European emperors and founded by their subjects, the *voyageurs* of old. Leaving the Lead Belt for an education in 1989, he made his way to the then University of Missouri – Rolla intent on studying geological engineering. After changing his major a couple of times, Steve graduated with a BSCE in 1994. Along the way, he spent summers working as a mine engineering intern which was preceded by a summer of tutelage with some of Missouri's finest surveyors, Earl Graham and Dan Govero. They planted the bug.

After starting a career as a Mine Engineer, Weible realized that what he really wanted to do was be a land surveyor. After some additional time with Govero and the attainment of surveying courses needed for licensure, Steve joined the State Land Survey Program in 2000. By 2001, he was working under the supervision of Dan Lashley in the State Park Survey Unit. In the summer of 2002, Steve was licensed as a Land Surveyor and given full responsibility of the State Park Survey Unit where he continues to this day.

His deed research required for boundary surveys over time evolved into genealogical and historical research. Tracing chains of title for his boundary projects became tracking the progress of land tenure systems through French, Spanish and early American Missouri. For his sharing of this expertise, and being the most frequent contributor to *Missouri Surveyor*, **Steve Weible** has earned our recognition as the MSPS *Surveyor of the Year* for 2020. 🇺🇸



Thank You

"When Joe Clayton called me on Tuesday, October 20, 2020, and told me that I would be awarded the "Surveyor of the Year," I was taken completely by surprise. I am very pleased to be honored for my efforts and I very much appreciate the recognition from my professional land surveying peers. Thanks!"



Missouri Society of Professional Surveyors

Sandra C. Boeckman
Executive Director

722 E. Capitol Ave. • PO Box 1342 • Jefferson City, MO 65102
Phone: 573-635-9446 • Fax: 573-635-7823
Email: mmps@missourisurveyor.org
Web Site: www.missourisurveyor.org

New Courses at State Tech on GIS and GNSS

October 2020

In a new move by State Tech, GIS/GNSS courses will be offered commencing this winter! On January 5, 2021, the start of the spring semester, State Technical College of Missouri (Linn) will begin its new



Introduction to GIS and GNSS course. This course will be taught by new faculty member Ryan McDowell, PS.

This course is a major departure for State Tech, which until now, has only offered the four minimum courses totaling 12 semester hours required for licensure. This is a major gamble State Tech is taking; they are hoping that surveyors will have an interest in more than the minimum education required by statute. This move will enable the College to progress towards the first in-state degree program in surveying. We urge all those interested in expanding their knowledge of these aspects of surveying to enroll in this course to demonstrate that “yes, there is interest by the land surveyors of Missouri to support surveying education and to expand the formal education of themselves and their teams in surveying topics.” The course and its follow-up to be offered in the fall of 2021, **Advanced GIS and GNSS**, have been approved by the Missouri Land Surveying Board as applicable towards the 12 credits, but only for half their total credits, i.e. taken as a pair, they will only count for 3 semester hours. However, offering courses of this type is essential toward an approved 2-year Associate’s surveying program where even more surveying courses will hopefully be approved by the Board to complete the degree. Listed below is relevant information for both courses.

CVT 245, Introduction to GIS and GNSS

Fundamental concepts in the use of geographic information systems (GIS) and global navigation satellite systems (GNSS) are taught to students preparing for work in the geospatial industries and professions. It will enable the student to understand spatial referencing concepts, Geographic Information Systems (GIS) and Global Navigation Satellite Systems (GNSS). Students will be introduced to GIS/GNSS receivers and GIS/GNSS software systems that are used to collect, correct, map, and analyze geospatial data. 3 sem. hrs. credit.

Upon completion of this course, students will be able to:

- Use spatial referencing concepts and GIS/GNSS technology and its applications,
- Acknowledge the impact that GIS/GNSS has had on the surveying industry,
- Apply the GIS/GNSS technology to the successful creation and maintenance of a robust GIS.

CVT255, Advanced GIS and GNSS

Students will be able to understand and demonstrate advanced spatial referencing concepts in Geographic Information Systems (GIS) and the Global Navigation Satellite Systems (GNSS) in this course. The student will be introduced to advanced GIS/GNSS receivers and GIS/GNSS software systems that are used to collect, correct, map, and analyze geospatial data. 3 sem. hrs. credit.

Upon completion of this course, students will be able to:

- Use advanced spatial referencing concepts and GIS/GNSS technology and its applications,
- Acknowledge the impact that GIS/GNSS has had on the surveying industry,
- Apply the advanced GIS/GNSS technology to the successful creation and maintenance of robust GIS databases.

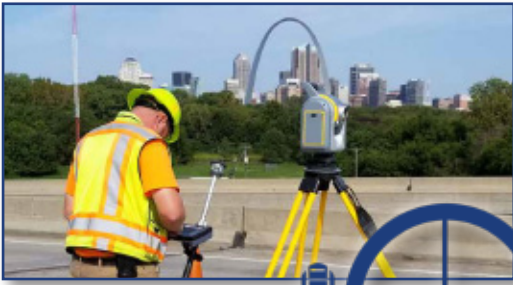
Both courses will be offered online. Because there is a **minimum enrollment requirement, it is necessary that we get sufficient students enrolling in this course.** We ask all employers interested on behalf of their teams as well as those interested in the courses themselves to immediately inquire about enrollment, costs and fees, etc. from:

Dean Ben Berhorst; Dean of the Division of Technology
ben.berhorst@statetechmo.edu; (573) 897-5118.

Simultaneously fill out an online application through the State Tech website:

https://statetechmoapply.force.com/application/TX_CommunitiesSelfReg?startURL

(continued on page 26)



SEILER

GEOSPATIAL
www.seilergeo.com

Providing high accuracy products, superior training, and support since 1945

- GNSS and total station solutions designed with the surveyor in mind.
- Field and office software that supports your workflows.
- Scanning and leading aerial mapping solutions that capture and deliver precise data faster.
- Training solutions that show you what to do with all your data.
- Experienced and knowledgeable staff to support your needs.
- Service and repair solutions to keep equipment in peak service.

Authorized Distributor for Trimble, Spectra Precision, GeoSLAM, DJI, Esri, Bluebeam, Microdrones, Delair, Seafloor Systems, Nikon and many more!

Looking to try before you buy? Contact us about our Take Five Rental Program!

Contact Us

Missouri & Kansas

Technical Support: 844-266-7266

- **Pat Stack** - (314) 614-5883

Technical Support: 844-602-9313

- **Jason Taylor** - (816) 491-4223

Toll Free: 888-263-8918



Sales • Service • Rentals • Training • Financing • Repairs

New Courses at State Tech on GIS and GNSS (continued)

Updated Course Roster and Recurring Schedule at State Technical College of Missouri

Along with the newly announce courses in GIS and GNSS, State Tech proudly continues its Surveying courses.

Fall semester (August – December)

- **CVT 240 – Surveying I** (taught online with four Saturday labs which must be attended on campus in Linn or with an approved remote lab mentor who must be a licensed professional land surveyor or engineer).
- **CVT 242 – Land Records: Researching and Rules of Construction** (100% online).
- NEW! (if there is sufficient enrollment) **CVT 245 – Introduction to GIS and GNSS** (online).

Spring semester (January – May)

- **CVT 241 – Surveying II** (taught online with four Saturday labs which must be attended on campus in Linn or with an approved remote lab mentor who must be a licensed professional land surveyor or engineer).
- **CVT 243 – Legal Aspects of Boundary Surveying** (100% online).
- NEW! **CVT 255 – Advanced GIS and GNSS** (online)

To enroll or get more information, contact

Ben Berhorst
Mike Oetterer
Dean of the Division of Technology
Instructor
ben.berhorst@statetechmo.edu
mike.oetterer@statetechmo.edu
(573) 897-5118
(573) 897-5354

Simultaneously fill out an online application through the State Tech website:

https://statetechmoapply.force.com/application/TX_CommunitiesSelfReg?startURL



New State Tech GIS Courses Recognized by Representative Mayhew

During the business session of the MSPS Annual Meeting (October 23rd, 2020) in Springfield, the Honorable Don Mayhew, PS, of the Missouri House of Representatives (District 121), shared these remarks to the membership:

“If you are not currently using GIS in your business then you are rapidly falling behind, technologically speaking. I use it in my business practically every day. I use it for research and field preparation to save considerable time in the field and, additionally, many architects and engineers require it as part of the surveying deliverables. Right now, there are GIS companies, with no licensed employees, that are doing work that has traditionally been part of the work that surveyors do. If you don’t keep up, they will find a way to do your work without you. I would like to give a “shout out” to State Tech with their offering of the GIS/GNSS courses in January. This is a great opportunity for licensed surveyors and their employees to learn how to use this technology.”



“We are a rapidly aging profession, and we must encourage our employees to become licensed surveyors. The first step is, of course, acquiring the 12 semester hours of surveying coursework. Currently, the only place in Missouri that you can get all of those hours is at State Tech” 🇺🇸

Surveyors Stay Open for Business During the Coronavirus Pandemic

by John M. Palatello, July 7, 2020 in *American Surveyor*



From coast to coast, surveyors by and large have kept busy and operational while many other sectors of the American economy experienced a slowdown and rising unemployment due to the Coronavirus pandemic.

Our firm, John M. Palatiello & Associates, Inc., (JMP&A), a public affairs, government relations, and association management firm in the surveying, mapping, and geospatial field, worked with several clients to help the profession continue operations in the face of orders by Governors to shut down non-essential business operations in response to the Coronavirus. Pro-active measures led to classifications of surveying and related services as critical and essential, permitted to function when other industries and lines of business were shut down.

Our efforts began when President Trump issued two national emergency declarations under both the Stafford Act and the National Emergencies Act (NEA) on March 13. We were contacted by two large surveying firm CEOs seeking verification of a rumor that the President would follow those actions by issuing a Federal order that all Americans would be required to quarantine in-home for two full weeks and the National Guard would be called upon to help enforce all Americans being quarantined at home. We immediately consulted with contacts on the White House staff and were assured no such national order was forthcoming or being contemplated.

Anticipating that orders of this nature might instead be issued by many if not all 50 state governors, JMP&A drafted a template letter in an effort to keep surveying operations open and exempt from any Governors' orders. The letter was provided to participants in the U.S. Geospatial Executives Organization (U.S. GEO), a coalition of principals, owners, partners and senior

executives of leading surveying, mapping, and geospatial firms, managed by JMP&A. The draft letter was also shared with the National Society of Professional Surveyors (NSPS), a JMP&A client, which circulated the draft letter among all state surveying societies with a recommendation that it be sent to their governor to request the exemption for surveying from any business shutdown order, as well as members of our client, the Subsurface Utility Engineering Association. The Maryland Society of Surveyors (MSS), another JMP&A client, was successful in its letter resulting in guidance released by Maryland Governor Lawrence Hogan, Jr., that specifically clarified and mentioned firms in surveying, engineering, and architecture may remain open, as they are deemed essential businesses related to federal critical infrastructure sectors.

In Virginia, the Virginia Association of Surveyors (VAS), a JMP&A client, sent its letter to Governor Ralph Northam, urging that surveying firms be permitted to remain open under any order affecting business operations. Governor Northam announced an order that all nonessential businesses close their operations. Fortunately, while not mentioned by name, surveying firms were not subject to that order, as advocated by VAS, based on the categories of businesses that could remain open.

In some other states, Governors ordered certain businesses close. Pennsylvania Governor Tom Wolf issued such an order, forcing firms in fields such as architecture, engineering, surveying, and construction to cease business activities. We also recommended that surveyors in affected states appeal to these Governors to explain why such orders should exempt surveyors and why surveyors should be permitted to continue operations, based on the fact that

(continued on next page)

Surveyors Stay Open for Business During the Coronavirus Pandemic *(continued)*

surveyors would suffer severe economic harm by such a shutdown and are critical to the economic well-being of the state, as well as pointing out that surveying can be safely carried out with social distancing and with little or no contact with the general public.



On behalf of its clients, JMP&A also worked with the Department of Homeland Security and the White House to more specifically list surveying in its guidance on critical infrastructure sectors, noting that many of the businesses and industries listed by DHS require surveying services to continue its operations. The DHS guidance was used by numerous Governors to define critical and essential business and industry.

The result was overall continuity in the profession, according to several practitioners.

“Our overall business is up and has been busy. A few of our private sector clients placed their projects on hold, but our workload and backlog have been compensated with an increase in public sector contracts. It appears as though agencies and municipalities have taken advantage of the window of opportunity to work on infrastructure while the stay at home orders reduce traffic and crowding,” said Gary M. Faulhaber, LS, RLS, Immediate Past President of the Virginia Association of Surveyors (VAS) and Senior Surveyor, Wiles Mensch Corporation, Reston, VA.

Aaron Worley, PLS, Survey Team Leader and Principal, Rodgers Consulting, Inc., based in Germantown, MD, and President of the Maryland Society of Surveyors said, “Throughout the pandemic, there has continued to be a strong demand for our services by our clients to keep their existing projects moving forward. We have been able to deliver project successes for our clients in the face of this challenge by being proactive in our use of remote access technologies and virtual communication tools to maintain strong client connectivity. We also continue to be presented with new opportunities for new projects from both our existing clients and new clients.”

“We are fortunate that we remained busy. With offices in California and Colorado, we regularly share processing and related work so when one office may slow down, it can help another office that has more of a backlog”, said Ken Meme, CP, RPP, President, Towill, Inc. Surveying, Mapping, LiDAR, Geospatial Solutions, Concord, CA.

Some firms have grown in the first half of 2020, adding staff and consummating mergers and acquisitions.

Faulhaber noted, “Our staff is thoroughly intact. We were initially cautious to hire at the onset of the pandemic, however our increase in recent backlog has caused us to begin efforts to potentially add one or two crews.”

“FXSA has been able to keep current staff, with 20% of employees working from home, said Frank X. Spencer, PE, RPLS, Senior Vice President, FXSA, El Paso, TX.

While dealing with the disruption of the pandemic, Towill, Inc. was able to close the acquisition of Cunha Engineering of Pinole, California. “While the closing of this transition comes during unusual times, it’s been a long-term goal of both firms and a well-planned acquisition,” said Meme. “We see this investment as an excellent way to increase our presence in critical market sectors while strengthening our team. Both businesses have enjoyed robust performance in spite of the global pandemic and we look forward to even better results when the crisis abates.”

The initiative of national organizations, and state affiliates, to get surveying, mapping, and geospatial activities classified as critical and essential was applauded by professionals from coast to coast.

“We were pleasantly surprised at the quick and positive response we received from the Governor’s office in response to the VAS letter. We explained why any shutdown order in Virginia should exempt surveyors and why surveyors should be permitted to continue operations. This proved to the land surveyors of Virginia the overwhelming value of membership in our association”, according to Faulhaber.



Membership in organizations like MSS and NSPS often come with benefits that are largely unnoticed by the profession at large, The work of board members, committee members, association management staff and lobbyists does not come without cost. These entities proactively worked behind the scenes making phone calls and sending emails to those State and Federal officials to ensure that our profession would remain essential during the pandemic”, said Worley.

“US GEO has done a great job assisting our profession to be classified as critical and essential businesses”, said Spencer.

Looking at the second half of 2020, some markets are expected to decline, forcing some firms to change their strategies.

“It has always been a corporate goal to have a diverse client and market base. That proved to be a benefit over the past several months,” said Meme.

Many surveyors foresee a slump in the commercial office development implementing teleworking on a more permanent basis. According to NAIOP, the commercial real estate development association, as firms recognize the benefits of permitting many employees to work from home, the demand for office space will decline.

Another market for many surveyors and other geospatial professionals that is expected to feel the effects of COVID is local government infrastructure. Business closures, high unemployment, and citizens staying at home and sheltering in place is shrinking tax revenues for local government. In a recent poll of 1,100 municipalities conducted by the National League of Cities, 65% said they are either canceling or delaying infrastructure projects or capital expenditures.

“During the pandemic, we have continued to implement those portions of our strategic plan related to growth,” said Worley. “We’ll continue to do so.” 🇺🇸

About JMP&A

John Palatiello is President of John M. Palatiello & Associates Inc., a public affairs consulting firm based in the Washington, DC suburb of Fairfax, VA, providing government relations, public relations, association management, strategic planning, event planning, and management and marketing consulting services to private firms, associations, and government agencies with an emphasis on the architecture and engineering; geospatial, mapping and GIS; construction; transportation and infrastructure, and land use sectors.

Surveyors Stay Open for Business During the Coronavirus Pandemic appears courtesy of **The American Surveyor** which is available in original format at:

<https://amerisurv.com/2020/07/21/surveyors-stay-open-for-business-during-the-coronavirus-pandemic/>

New Exhibit at State Museum Features a Historic Surveyor's Compass

Family of Bob Myers Shares the Artifact

by Donald Martin and Matt Thomas

The Missouri State Museum in the State Capitol has opened a new exhibit which features a surveying connection to our state's history. Part of the museum's commemoration of the Missouri Bicentennial, the exhibit *Missouri Trailblazers* includes the surveyor's compass used by Joseph C. Brown in the establishment of Missouri's early borders. The museum touts the exhibit as "exploring ways the state's people and institutions have impacted our culture through major events, leadership, innovation and more."

While playing a part in honoring Missouri's 200th birthday, *Missouri Trailblazers* seeks to encompass more than traditional histories which have focused on the great, grand and heroic. This exhibit specifically features people and events which, although less known, are by no means less significant. Referring to the exhibit's subjects as "... those commonly overlooked, forgotten or unknown to our Missouri story," the exhibit showcases among its collection the compass of Joseph C. Brown. Brown's notable contributions to Missouri and American history includes surveys of the Fifth Principal Meridian, the Osage Treaty line and the Santa Fe Trail.



(photo by Matt Thomas)

The compass on display is unique for its place in Missouri history. Most interesting is the ownership genealogy of the compass. Upon Brown's death in 1849, the compass passed through the sale of the ol' surveyor's estate and may have gone through a second estate sale as well. It was then acquired by Fredrick Hyatt. Hyatt was an associate of Brown's and it is believed he and Brown worked together on surveys in Florissant, Missouri *circa* 1839. From a long lineage of surveyors, Hyatt would go on to serve as a legislator in both the Missouri House and Senate. He would also go on to be the forbearer of his own multi-generation progeny of surveyors. This included Claude Hyatt Myers, commissioned as the Surveyor of the City of St. Louis on 1919 and founder of the firm Myers, Keller & Byers. The compass had passed from Fredrick Hyatt to Claude.

In 1946 Claude's grandson had just entered high school and was suited to serve as a part-time rodman for the firm. That youth's name was Robert (Bob) E. Myers, Jr. Inheriting the family's surveying tradition, he went on to one day own Myers, Keller & Byers. He also inherited Joseph C. Brown's compass. In 1971, Bob Myers became the first State Land Surveyor of Missouri. Bob Myers passed away in February of 2019 leaving one of the finest legacies of any surveyor. He also left this historically significant artifact – the *Surveyor's Compass*.



(photo by Matt Thomas)

After the passing of Bob Myers, events lined up like cross-hairs on Polaris and serendipity set in to guide the fortunes of the old compass. A protégé of Bob's in matters of surveying history, Stan Emerick had obtained some thorough research on the *Surveyor's Compass* while putting things together for the MSPS effort to memorialize Brown. Stan shared what he learned with Joe Clayton as they worked together researching the

Osage Treaty Line. Joe in turn passed information on to members of the MSPS History Committee which he chaired. A member of that committee, Matt Thomas then connected the lore of the compass with the work of Missouri's State Museum. As a part-time guide for the museum's exhibits in the state Capitol, Matt was closely familiar with plans for marking our state's bicentennial and worked with the museum's Assistant Director, Jaime Henry. In the mean time (whew!) current State Land Surveyor Ronnie Heimbaugh respectfully handled contact with the Myers family. They then worked directly with the museum's curators to include the *Surveyor's Compass* in the *Missouri Trailblazers* exhibit.

Thus, when the exhibit opened on November 20th, an enclosed glass case* became home to the *Surveyor's Compass*. Upon the case, a placard reads –

Surveyor's Compass
Made by W.L. Potts & Co., Bucks County, Penn.
Circa 1807 – 1817.

Between 1823 and 1837, the new state of Missouri contracted with U.S. Deputy Surveyor Joseph C. Brown (1784 – 1849) to establish the northern, western and southern boundaries of the state. Effectively, the readings provided by this compass were used to draw the current shape of the state. Additionally, Brown conducted official surveys between Fort Osage (in modern Sibley, Jackson County, Missouri) and the border of Mexico, laying out the Santa Fe Trail and six other Midwest states.

On loan from the family and friends of Robert E. Myers, Missouri's first State Land Surveyor.

Matt Thomas reports the last line, "On loan..." is what is called a courtesy line. And where the courtesy line refers to "... friends of..." it was the intention of the Myers family that the word "friends" meant our active team from the History Committee, the good people of the State Land Survey Program, and the members of the Missouri Society of Professional Surveyors.

The *Surveyor's Compass* now rests in honored display as a treasure of Missouri history. And the names of two master surveyors are joined on the presentation of that treasure. And a generous acknowledgment shared by a wonderful family enriches the hearts of this state's surveying community.

*Currently displayed in a glass case, plans are for the compass to be appropriately perched atop a tripod soon. The tripod will be "on loan" from MSPS's Matt Thomas, who inherited it from his late father, Spencer Thomas, RLS. 🇺🇸



National Geodetic Survey

Positioning America for the Future

NGS News & Events

Delayed Release of the Modernized NSRS

NOAA's National Geodetic Survey (NGS) is announcing a delay in the release of the modernized National Spatial Reference System (NSRS).

In 2007, NGS began planning for the modernized NSRS, acquiring its first airborne gravimeter, creating and initiating the Gravity for the Redefinition of the American Vertical Datum (GRAV-D) project and by 2008 had codified its modernization plans into a Ten Year Plan. At that time, the target completion date was 2018. By 2013, that date seemed unlikely, due to both the broadening of the GRAV-D coverage area and the experience of five years of operational planning and execution.

In 2013, NGS revised its 2008 Plan, and targeted 2022 as the date of the release of the modernized NSRS. This date was reinforced with a 2018 Strategic Plan revision. By 2017, confidence in hitting the 2022 target was high enough to reach final agreement with Canada and Mexico on a naming convention for certain components, to include "2022" in their names.

Since 2017, operational, workforce, and other issues have arisen and compounded, causing NGS to recently re-evaluate whether a successful roll-out by 2022 is possible. The most significant impacts have been in workforce hiring and retention, and in meeting GRAV-D data collection milestones, which underpin the NSRS modernization efforts.

NGS is currently conducting a comprehensive analysis of ongoing projects, programs, and resources required to complete NSRS modernization and will continue to provide regular updates on our progress. To get the latest news on NSRS modernization and track our progress, subscribe to *NGS News* or visit their "New Datums" web pages at:

<https://geodesy.noaa.gov/datums/newdatums/index.shtml>

NGS Participates in United Nations Asia-Pacific Geodetic Working Group

Friday November 13, 2020

The ninth plenary session of the regional committee of the **United Nations Global Geospatial Information Management for Asia and the Pacific (UN-GGIM-AP)** was held both virtually and in Bangkok, Thailand. NGS Chief Geodesist Dan Roman participated virtually



UN-GGIM-AP

as the U.S. Observer in the plenary session and working group on the Geodetic Reference Frame. The forthcoming modernized U.S. National Spatial Reference System will realize two frames in the Pacific region, and the chief geodesist is leading efforts to coordinate these projects with other Asia-Pacific countries. Ensuring that the U.S. Pacific Terrestrial Reference Frame and the Mariana Terrestrial Reference Frame work seamlessly with the Asia-Pacific Reference Frame will ensure better commercial, scientific, and engineering applications. This collaboration also supports broader NOAA efforts for outreach to the Micronesia region and to other Pacific Rim nations.

(continued on page 35)

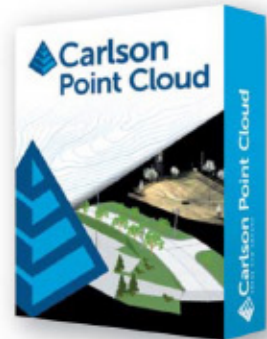
Complete Your Carlson Software Toolbox Today!

Ask your Laser Specialists Representative about these products!



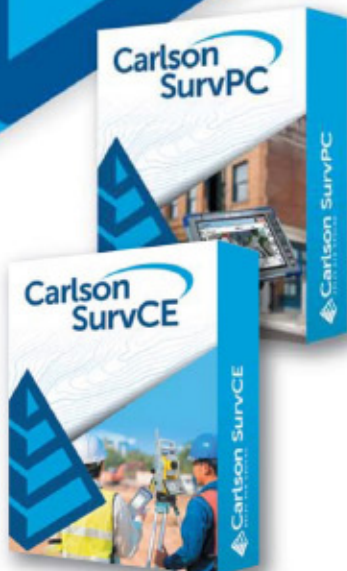
Survey

Powerful Field-to-Finish, Office Platting and Drafting Software, Now with Improved Autodesk Civil3D® and/or MicroStation® DGN Support



Point Cloud

Turn your point cloud data sets into usable models quickly and easily with Point Cloud Basic or Point Cloud Advanced



SurvCE/SurvPC

Powerful Field Data Collection Software with Extensive Equipment Support, Now with Hybrid



BRx6+

GNSS RTK performance with triple-frequency tracking and measurement on multiple satellite



GIS

From aerial imagery to data capture, Carlson GIS is the GIS "Swiss Army Knife" for the surveyor



Laser Specialists Inc

www.LaserGPS.com

Matt Todd
(417) 371-1927

Kevin Lindsey
(417) 208-6629

J. Logan Dowd: A State Tech Success

LSIT Dowd Tells His Story

October 28, 2020

I am a first-generation land surveyor working for Bowen Engineering & Surveying (Cape Girardeau, Mo.) Originally my interest was in engineering where I believed I wanted work in the civil industry. While interviewing a civil engineer for a career development assignment, she suggested that I look into land surveying. That suggestion was what initially lead me into a field in which I had not prior knowledge of. A love for the outdoors and history and having a technical mind proved to be a good fit for this profession.



My work consists of field procedures for topographic, boundary, ALTA, remote hydrographic, network control, and deformation surveys along with data processing for much of the topographic and control surveys. My experience with deformation surveys was a great exposure to many of the precise survey techniques and their statistical data analysis which can be applied to most other aspects of surveying. Early on in my employment, I developed a passion for the profession and began the search for a formal education that would allow me to continue to work while obtaining the education requirements for licensure in Missouri. I was referred to State Technical College of Missouri by a colleague. Dr. Paiva was my instructor in these courses at the time; my employer informed me of Dr. Paiva's extensive background, as he had also been a student earlier in his (Paiva's) career. State Tech was my first choice for convenience, ease of enrollment, as well as being the most affordable. The fact that all the courses were either all online or "hybrid," meaning a mixture of online and in-person, was huge. I was quickly enrolled and began the courses in Spring of 2018. The course structure at State Tech allowed me to continue working full time; the knowledge I gained from the courses was applied practically every day at work, as it filled in gaps of what I already knew.

My first step towards licensure began with enrollment at State Tech, where I completed 12 credits of surveying coursework, enrolling in one course each semester. I was confident enough to schedule the Fundamentals of Surveying (FS) exam two months after finishing the final course at State Tech in the Fall of 2019. Using the two months between the end of the surveying courses and the start of the exam, using the exam specification published by the National Council of Examiners for Engineering and Surveying (NCEES), I studied materials either not covered by the courses or ones that were in a greater depth than I encountered in my courses. I passed the FS exam at the end of January 2020 and was given Land-Surveyor-in-Training (LSIT) status by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects in the following months.

I am currently enrolled at the University of Maine pursuing a Bachelor of Science degree in Surveying Engineering Technology. I am eager to further my education and hope to obtain additional licensure in neighboring states such as Illinois. State Tech is now offering GIS/GNSS courses that I hope to register in as I feel that these topics have become a major part, not only in this profession, but in much of society. GIS is a powerful tool with many applications in many different industries and as a surveyor I hope to use this to improve my knowledge and skills and better the profession. 🇺🇸

GOVERO
Land Services
SURVEYING • ENGINEERING

DANIEL L. GOVERO LS1778
PRESIDENT

5929 OLD STATE RD.
IMPERIAL, MO 63052
(636) 464-9380
FAX (636) 464-9626
galend@goverolandservices.net

ANDERSON
SURVEY COMPANY

203 Northwest Executive Way
P.O. Box 673
Lee's Summit, Missouri 64063
Phone: 816-246-5050

NGS News & Events *(continued)*

NGS Collaborates on Chesapeake Bay Sea Level Rise Study

Friday October 9, 2020

NGS is collaborating on a **study of land subsidence** (the gradual sinking of the Earth's surface) in the Chesapeake Bay region. The Bay is the nation's largest estuary and has a faster rate of sea level rise than anywhere else on the East Coast. As regional communities are dealing with nuisance flooding and the loss of coastal wetlands, it is important to understand which impacts on land elevation and water levels are due to global sea level rise and which may be caused by local, human activities (e.g. groundwater withdrawals). This study will span five years and collect precise measurements at 55 benchmark points every October. Results of the study will help inform resiliency plans and coastal management throughout the area.



Instrumentation to measure land subsidence at a site in Virginia Beach (Credit: Russ Lotspeich, USGS VA/WV WSC.)

NGS Participates in Multinational Meetings

Friday September 25, 2020

NGS representatives, including NGS Director Juliana Blackwell and Chief Geodesist Dan Roman, participated in both the **AmeriGEO** and **UN-GGIM: Americas** meetings, as well as a joint meeting between the two groups. The AmeriGEO initiative focuses on practical implementation of earth observations in the Americas. UN-GGIM: Americas is a United Nations intergovernmental organization supporting governmental collaboration for geospatial data in the Americas. These groups promote education, training, and capacity building; they also develop standards and governance related to a common geospatial framework. A highlight of the meetings was the establishment of a new working group to implement a common Geospatial Reference Frame for the Americas, to which NGS will contribute via its efforts to modernize the National Spatial Reference System. Also discussed were areas where the U.S. can support capacity building, especially in the Caribbean region for the CariGEO initiative.




Study Shows NGS Program Worth Billions to U.S. Economy

Friday September 4, 2020

A **socioeconomic study** estimates that the NGS Aeronautical Survey Program (ASP) is worth between \$3 billion and \$13.2 billion to the U.S. economy over the next decade. The study calculates the full value of ASP contributions to the 2019 economy at \$229.5 million to \$1.02 billion. Moreover, without the ASP, there would be an estimated 3,438–12,849 fewer jobs. The ASP, through interagency agreements with the Federal Aviation Administration (FAA), provides the critical information needed to fly safely into airports nationwide, including runway, obstruction, navigation, and airport feature information. Without proper surveys, FAA imposes additional restrictions on flight paths and runway access to maintain safety. These restrictions can result in additional fuel usage, flight delays, and other inefficiencies. The ASP helps ensure efficient use of the national airspace, which is essential for local, national, and international economic activities.

A copy of the study is available at:

<https://geodesy.noaa.gov/library/pdfs/protecting-against-airport-obstructions-socio-economic-study.pdf> 



NEWS & VIEWS

National Society of Professional Surveyors

NSPS's John "JB" Byrd Earns Top Lobbyist Award

NSPS, November 12, 2020

John "JB" Byrd, the registered lobbyist for NSPS, was recognized as a top lobbyist for 2020 by the [National Institute for Lobbying and Ethics](#) (NILE). Byrd, of the firm John M. Palatiello & Associates, Inc., a government relations consultant to NSPS, advocates for the surveying profession before Congress and Federal agencies. Thanks JB, for all that you do for us!!!!



John "JB" Byrd | John M. Palatiello
& Associates



NSPS PAC Achieves 95% Win Rate

NSPS, November 12, 2020

The [NSPS Political Action Committee](#) (NSPS PAC) today announced that contributions of more than \$14,000 in support of 22 candidates for the U.S. Senate and House of Representatives resulted in just one loss from these NSPS-supported campaigns, a 95% win rate. For more information about the NSPS PAC, PAC Chairman Jon Warren's "Drive to 75" Campaign, and how to contribute, visit the NSPS PAC webpage. Contributions went to a bipartisan list of seven Senators and fifteen incumbent members of the U.S. House of Representatives including Rep. Sam Graves (R-MO) of Tarkio.

NSPS Cosigns Coalition Letter to Congress on Ligado

NSPS, November 5, 2020

NSPS joined a coalition of organizations in reminding leadership of the Senate Commerce, Science, and Transportation Committee of the negative impacts of the April decision of the Federal Communications Commission (FCC) on the [Ligado order to allocate spectrum that studies show would create interference with GPS signals](#). A broad coalition of 80 organizations, including NSPS, signed a letter explaining to the committee's leadership, explaining a request for the committee's "direct involvement to protect the satellite communications and GPS services that we provide and are relied on by tens of millions of Americans everyday." The surveying profession was specifically referenced in the letter. At a hearing in June a U.S. DOT witness testified by referencing "high precision surveying" and "surveying equipment" while providing the example "of a surveyor siting a road or pipeline in the wrong place due to bad data" as negative consequences to Ligado interference with GPS.

(continued on page 38)

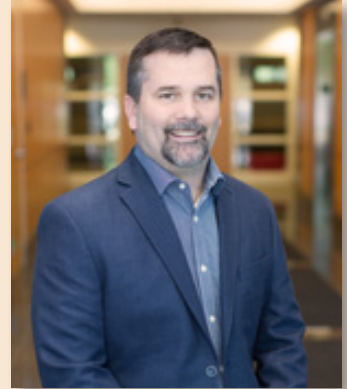
In Memory of Andrew Riddle

Surveyor and MSPS member Andrew Jerome Riddle, 43, of Spring Hill, Kansas passed away Friday, November 6, 2020. A *Celebration of Life* was held Sunday, November 15, 2020 at Kansas City First Church of Nazarene.

Andrew was born July 6, 1977 in Kansas City, Missouri to Tony S. and Connie E. (Gatliff) Riddle. Andrew graduated from Grandview High School. He married Kelly Roberts on September 29, 2001 in Kansas City, Missouri. Andrew was the Director of the Land Surveying Department for George Butler Associates, Lenexa, Kansas. He was a well-liked and highly esteemed employee and loved the surveying profession. He had worked for GBA since April of 1997 and was a licensed surveyor in multiple states.

Andrew loved the company of his friends and family, but most of all, he loved being with his wife and 3 girls and never missed attending their sporting, cheerleading and musical events. There wasn't a thing he wasn't good at and even when he wasn't, he would convince you otherwise. He loved music, singing, learning about history, playing golf, long-boarding, watching funny animal videos and being outdoors. Andrew was a lifetime superfan of the Kansas City Chiefs and the Kansas City Royals. He also enjoyed singing and playing guitar in a band with his brother, Daryl. Andrew was a curious soul, creative, always learning something new, and as a result, very technologically savvy. He believed in giving to his community and had recently donated a land survey to the Spring Hill Inspiration for Teens (SHIFT) Skate Park in Spring Hill, KS.

Andrew is survived by his wife, Kelly, and 3 daughters; Maggie, Megan and Macy all of the home, parents: Tony and Connie Riddle, Prairie Village, Kansas, sister: Kris Tuey & husband Ed, Grandview, Missouri, brothers: Daryl Riddle & wife Jen, Plattsburg, Missouri and Jeremy Riddle, Kansas City, Missouri, as well as nieces and nephew: Alexandria and Sophia Tuey, and Jonathan and Jillian Riddle, mother-in-law Sheryl Roberts, father-in-law David Roberts and brother-in-law Cory & wife Marisa Roberts as well as their daughters Lindley & Arlaina Roberts. He is preceded in death by his brother-in-law Chris Roberts. 🇺🇸



SURV-KAP®

No Boundaries On Customer Service

We manufacture a full line of brass survey markers for all of your surveying needs.



MONUMENTS, MARKERS, CAPS & ACCESSORIES

ORDER NOW: 800-445-5320 • SURV-KAP.COM

NSPS News & Views *(continued)*

COFPAES Celebrates Brooks Act 48th Anniversary

NSPS, October 29, 2020

This past Tuesday, October 27, marked the 48th anniversary of the “Brooks Act”. The Council on Federal Procurement of Architectural and Engineering Services (COFPAES), of which NSPS is a longstanding member, observed that on October 27, 1972, President Nixon signed Public Law 92-582 to codify the **qualifications based selection** (QBS) process that emphasizes the importance of quality over low price in the selection of firms to provide architecture, engineering, and related services, including surveying and mapping.

NSPS Focus on Subsidence Cited in National Infrastructure Dialogue

NSPS, October 22, 2020

NSPS has been working with USGS leadership and stakeholders in the infrastructure and financial services community to fine tune the idea of a “**National Land Level Change (NLLC) Map**”, which will be used to track subsidence and other land level change phenomena. Since last September, USGS has engaged NSPS by requesting examples of subsidence creating problems on infrastructure projects. The discussion with USGS, FEMA, NOAA/NGS and NASA is focused on how satellite data can be used to produce a small-scale national map to identify areas prone to land level change thus creating a demand for high accuracy surveys at the local level. In October, NSPS was recognized by USGS leadership during an online web conference with a surveying project on a highway in Idaho that was impacted by land level change.

A Diverse Perspective

NSPS Diversity Committee, October 15, 2020

2020 has been an interesting year to say the least. As we went from booming economy to pandemic uncertainty, we also entered a time where society questioned ideas of inclusion and diversity.

In June, NSPS formed our ad-hoc committee to discuss diversity within the surveying profession, and to explore ways that we can attract more people from diverse backgrounds into it.

Our mission is to increase diversity as a way to promote and expand the surveying profession. We believe in our hearts that we have far more in common than not. We also understand this is a difficult and often uncomfortable conversation. By leveraging all our different points of view and perspectives we can build a stronger, more inclusive profession and hopefully open avenues to new groups and organizations that we can incorporate into our workforce development efforts. 🇺🇸

Surveyors Materials, Inc.

8875 Frost Avenue
St. Louis, MO 63134

Voice: 314-521-9041
Fax: 314-521-9043

Edward Owen
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

Be a Magazine Cover Model or News Maker!

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-ratio comparable to 17”x11” work best; stories and articles merely need to be in Microsoft Word.



Surveyors Materials, Inc.

8875 Frost Avenue
St. Louis, MO 63134
(314) 521-9041

Sales * Rentals * Service

**From Laths and Hubs to Robotics, Network GNSS
&
High Definition Scanners**

- when it has to be right





**Missouri Society of
Professional Surveyors**
722 E. Capitol Avenue
Jefferson City, Missouri 65101

PRSRT STD
US Postage PAID
Permit No. 364
Jefferson City, MO 65101

