

MISSOURI SURVEYOR

A Quarterly Publication of the
Missouri Society of Professional Surveyors

Jefferson City, Missouri

December 2007



A Surveyor's Challenges: P.K. Robbins in Missouri	4
50th Anniversary Convention	18
MACS Celebrates 25th Anniversary	36
Engineers Without Borders	42

MISSOURI SURVEYOR

CALENDAR OF EVENTS

2008-2009

February 13, 2008
Capitol Visitation and Board
Meeting

March 4-8, 2008
ACSM/LSAW Conference
Spokane Convention Center
Spokane, WA

May 8-10, 2008
Spring Workshop
Lodge of Four Seasons
Lake Ozark, MO

July 11-12, 2008
Board Meeting and Minimum
Standards Workshop
Lodge of Four Seasons
Lake Ozark, MO

October 16-18, 2008
51st Annual Meeting and Convention
Joint Conference with Kansas
City Society of Land Surveyors
University Plaza Hotel
Springfield, MO

December 6, 2008
Board Meeting, MSPS Office
Jefferson City, MO

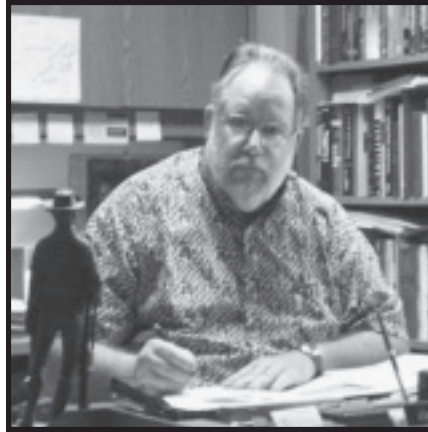
May 7-9, 2009
Spring Workshop
Lodge of Four Seasons
Lake Ozark, MO

John Alan Holleck, Editor



Notes from the Editor's Desk

by John Alan Holleck



At the time of finalizing this edition of the Missouri Surveyor, John Holleck was in the hospital with no access to phone or email. Please keep him in your thoughts and prayers.



THE MISSOURI SURVEYOR

Published quarterly by the
**Missouri Society of
Professional Surveyors**

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The *Missouri Surveyor* is published quarterly by the Missouri Society of Professional Engineers, 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



by Donald Martin

The completion of another MSPS Annual Meeting in the fall and the onrush of winter are sure signs of a new year for our Society. As we begin this new year I wish to first "take a back-sight" and express appreciation to Shane Terhune for his leadership as our President this past year. His steadfast commitment to our profession and its practitioners was a model for all members to follow.

The Annual Meeting, our 50th Anniversary, was a fine success with over 350 in attendance. This number included many of our Past Presidents whose presence and participation served to remind us that we are the inheritors of a proud legacy and privilege to practice this truly grand profession. Two members who best embody and honor the legacy of our founders are our award recipients, *Missouri Surveyor of the Year* Mike Gray and the *Robert Myers Service Award* honoree John Teale. Congratulations to them both.

While our 50th convening did invite us to reflect on our Society's founding and how far we have come it also served as the beginning of the coming business year for MSPS and our future. Many "new" matters started at our meeting. Mark Nolte was installed as our newest officer after three years as a member of the Board of Directors. Norm Ellerbrock and Robert Ubben were elected by their fellow members to serve as our newest Directors. These surveyors and all of the remaining Officers and Directors have pledged to serve our Society and its members. Helping them in this pledge are our committee volunteers which include a number of new committee chairs. Kevin Lambeth at Annual Meeting, Darrell Pratte at Awards, Kevin DeSain at GIS/Vision 21, Jerrod Hogan at Handbook, Betty Sheil at Scholarship and Rich Howard at Trig-Star join with our incumbent chairs to provide leadership in these critical areas. Thank you for accepting the mission and agreeing to share your talents. I implore members to join these surveyors by volunteering for committee service. As long-time committee chair Dan Govero often says "this is your Society" - participate in setting its course by volunteering to serve.

New items are not limited to new names and faces. There were also new ideas and challenges. Inspired by the Scholarship Committee report and Mike Flowers' inquiry about the possibility of a self-sustaining scholarship fund, Joe Paiva initiated the concept of a "Scholarship Endowment" by pledging \$100. This was immediately followed by similar pledges that have since continued. These donors are truly putting their money to a good cause by helping to fund the education of future surveyors. That is about as good as a "foresight" gets! Setting the course ahead and clearing the way for those to come. Whether it was our predecessors measuring Missouri to turn it from wilderness to land, or our contemporaries laying out subdivisions so that property could become homes, or members establishing scholarships funds to insure opportunities for a new generation of surveyors, these actions point to a truth that may serve as motto - Surveyors Lead the Way.

So as we go forth into a new year let us all renew the charge of our founders and again pledge the creed they adopted one-half century ago - "honor of the land surveying profession before personal advantage and the public welfare above all other considerations." As we move forward in service to our clients, to one another, and to the citizens of Missouri who bestowed the privilege to practice upon us, let's do so as leaders. We will provide leadership to critical issues through committee volunteerism, we will provide leadership on surveying issues to our new legislative lobbyists McCulloch & Wright Consulting Services, we will provide leadership by being professional not only by our titles but as well by our deeds. We will provide leadership because that is what we do - Surveyors Lead the Way. 🇺🇸

Cover photo: Past Presidents: Front Row (L-R) — Dick Elgin, Ken West, Norman Brown, James Reed, Bob Myers, Dave Krehbiel, Rich Barr and John Teale; Middle Row (L-R) — Craig Ruble, Mike Flowers, Dan Lashley, Steve Borgmann, Dan Govero, John Stevens, Richard Cox, Mort Ratliff, Loyd Garner, Jack Beale, Shane Terhune and Don Martin; Back Row (L-R) — Charley Kutz, Bill Kankolenski, Bob Shotts, Bob Lewis, Jim Anderson, Rich Norvell, Erwin Gard, Bob Arnold, Mike Zahner and Troy Hayes.

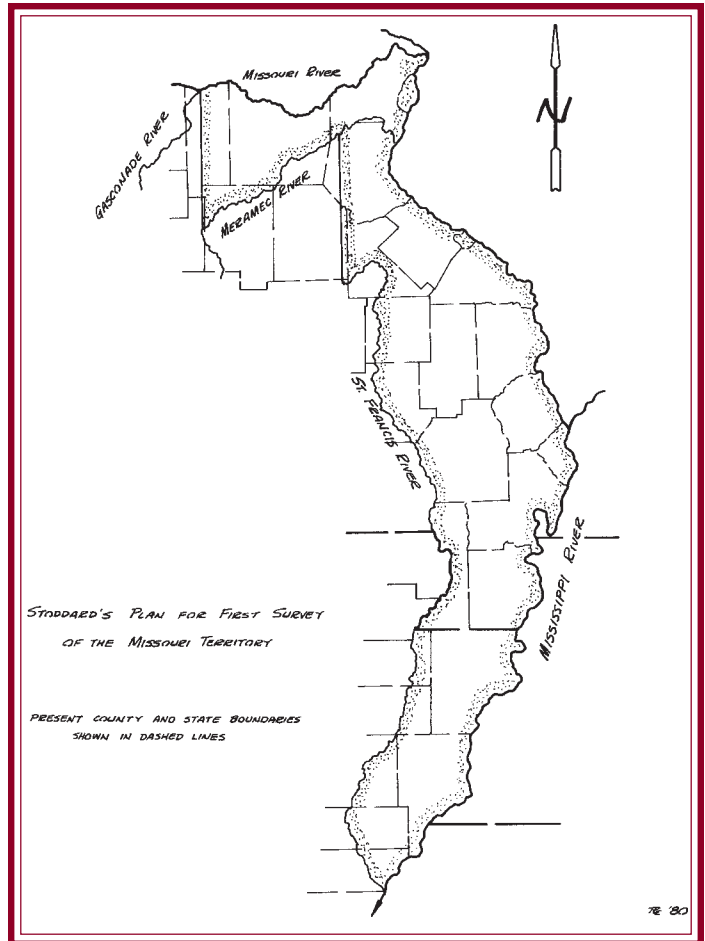
“A Surveyor’s Challenges: P.K. Robbins in Missouri”

by Lynn Morrow

On Saturday, November 18, 2006, the Missouri Association of County Surveyors met in Ste. Genevieve to memorialize an icon in the history of surveying in the nation’s Trans-Mississippi West – Prospect K. Robbins. Like many folks who died on an American frontier, Robbins does not have a marker at his gravesite. Thanks to the professional surveyors, he now has a native stone bench installed beside a walking trail that will have a plaque devoted to the memory and work of this talented pathfinder. Robbins lived his adult years in Louisiana Territory, Missouri Territory, and the State of Missouri. Through the changes in government authority, he and his fellow citizens worked to create legal boundaries and marketable resources on new lands.¹

Americans assumed federal authority in the Louisiana Purchase in March 1804. However, it would be many years before Americans could easily claim, purchase, and record property in the millions of Purchase acres. Major Amos Stoddard, charged with taking control of Upper Louisiana as civil and military commander, reported that every available surveyor in the country was employed. Americans, moving west, brought a rationalized way of commodifying the land for sale and ownership – surveys in a grid pattern that could be mapped, visualized, and presented in court as legitimate boundaries. The starting point for the survey of the Louisiana Territory required an “initial point,” and subsequent north/south and west/east lines (meridians and baselines), so that survey contractors could proceed from them. General William Rector (1773-1826) managed a federal land office in St. Louis, where he chose contractors and received the completed plats and survey notes. The general chose a former officer from their shared experiences in the War of 1812, Prospect K. Robbins, a young man well-known for his education, military service, and surveying skill in St. Charles and Lincoln counties, as the man to establish the Fifth Principal Meridian, a foundational survey in the Midwest. This event, of course, lies in the context of a national story, and is part of P. K. Robbins’ legacy, a glimpse of a man’s life observed in public sources, newly available in Missouri circuit court records.²

The surveying experience was a frontier enterprise that bound together young educated men with political or military connections and ties to the federal government. Surveyors, central figures on American frontiers, did not become household names although national figures from George Washington and Daniel Boone to Abraham Lincoln surveyed dozens of properties. American surveys of private claims and federal land began in 1785 and lasted until 1946; Missouri’s public land surveys commenced in 1815 with the Fifth Meridian, and continued until 1855, when surveyors had completed the grid of one mile sections available for claim and filing in county recorder of deeds offices. The work provided a legal framework for owning land and it merged the state into the national experience with the creation of



Stoddard's Plan for First Survey of the Missouri Territory
(Courtesy of Richard Elgin, Rolla, Missouri)

state and local government archives that chart the ownership and use of real estate. Beginning in Missouri in 1815 federal contracts sent scarce money into frontier towns and were significant plums for those who were party to the survey economy. Skilled surveyors were also administrators who hired crews to negotiate natural obstacles, and survive unpredictable weather. Surveyors were also experienced men in backwoods lifeways, living months in the open woods, out on the prairies, and in traversing swamps and wetlands.³

The science and history of surveying, so prominent in the Western movement, required a bureaucracy, but it had to be invented as Native American lands became federal property. By 1796 the federal government had established land offices in Pittsburgh and Cincinnati for the work in Ohio, with later ones emerging farther west in Vincennes, Kaskaskia, and St. Louis. The fast-paced federal acquisition of Indian lands

(continued on page 5)

“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

in the Northwest Territory, and the 1803 Louisiana Purchase, created hundreds of new jobs for survey teams. In the early nineteenth century, William Henry Harrison, governor of Indiana Territory, administered the federal contracts. William Rector, a talented frontiersman and remembered as a first settler in Perry County, Indiana, was among his first influential surveyors. In summer 1805, Rector surveyed a buffalo trail from near the Ohio River northwest to the Vincennes Tract, laying the basis for subsequent Indiana work. William Rector made an early reputation among his peers by surveying the Third Principal Meridian later that year, a benchmark in the Old Northwest. He continued surveying and brought his five brothers into the business. They continued work in Indiana, and in Illinois by 1807, while the survey business continued as a federal activity of territorial government.⁴

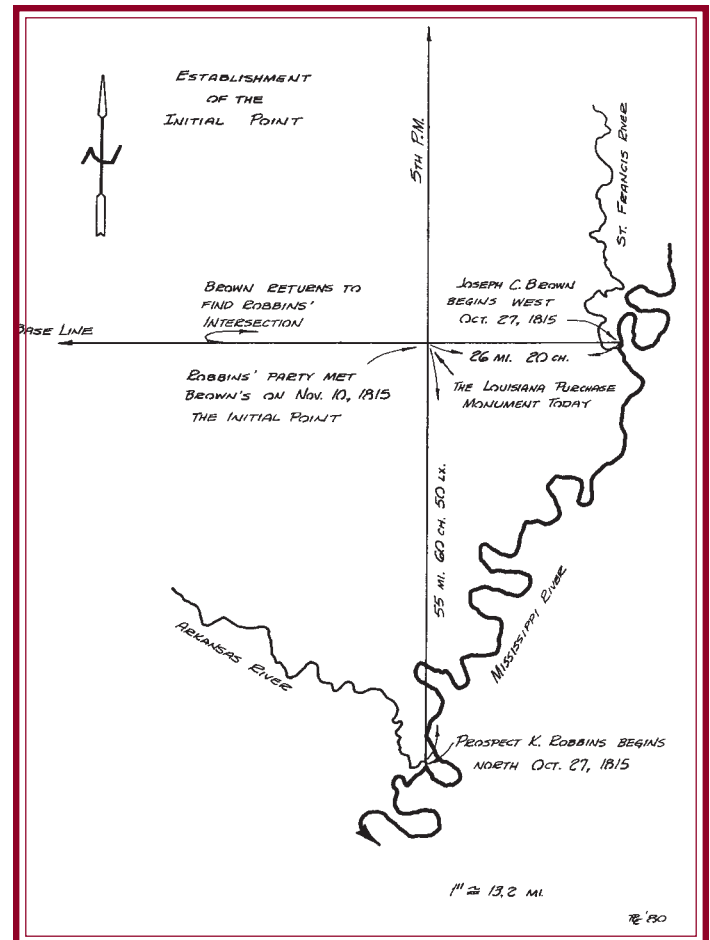
In 1812 the federal government, in order to centralize the administration of the nation’s land records, created the General Land Office in Washington D.C. Edward Tiffin, the first governor of Ohio and later U.S. Senator, became the first commissioner; he hired Josiah Meigs, a man educated in medicine, the ministry, and politics, to be the surveyor general. William Rector had remained a pillar in the western work within this new bureaucracy, and Meigs called him “the most skillful and able practical surveyor in the United States.” But the War of 1812 brought new challenges. In 1813 Rector became brigadier general in the Illinois militia and brother Elias Rector performed as adjutant general for Illinois Territory.⁵

A few months later, in 1814, the government posted William Rector in St. Louis as the principal deputy surveyor for Missouri Territory; all the while, William kept his brothers party to the federal jobs. Private land claims, given under French and Spanish colonial rule and enclosing thousands of acres, represented a very small total acreage in the old Louisiana Territory. By the time that Edward Tiffin had changed jobs and became Surveyor General in 1814, no one made any louder call for surveys than military veterans, who wanted “government lands,” as a reward for their military service. Tiffin, a modernizer in clerical procedures, codified written contractual instructions for the surveys, and William Rector worked in the first projects to use Tiffin’s guidelines.

Deputy surveyor general Rector administered the first Trans-Mississippi contracts for the Fifth Principal Meridian to be surveyed in Arkansas and Missouri. He chose war veterans Capt. Joseph C. Brown (a surveyor who reputedly had worked east of the Mississippi River) for the east/west baseline, and Lieut. Prospect K. Robbins, for the north/south meridian. Years earlier, in Indiana, Rector had proposed a meridian survey in the Missouri country “to tie in the many private land claims surveyed at St. Louis, New Madrid, and elsewhere in the region;” and the end of the war gave him the opportunity. Veterans Rector, Brown, Robbins, and many other surveyors who had served in the recent war as officers

and militiamen received patronage from their former commanders.⁶ One writer, commenting on Rector’s success, wrote, “General Rector has so many connections that are Surveyors that it is not possible for a stranger to get any Contract of any importance.” Rector’s budget soon equaled that of all other survey work in the nation, as he had the largest district in the United States, and federal money poured into St. Louis.⁷

Robbins and Brown began their work in the Arkansas delta, where on November 10, 1815, they met to establish an initial point – the intersection of baseline and meridian – memorialized at the Louisiana Purchase State Park, Monroe County, Arkansas, and subsequently christened a National Historic Landmark. Brown worked in Arkansas, while Robbins headed north for the Missouri River. The initial point became the future reference for surveys in Arkansas, Missouri, Iowa, Minnesota, and most of the Dakotas. Robbins hired trusted acquaintances from St. Charles County to join him – included were brothers John and Alexander Baldrige and Hiram Scott.



Establishment of the Initial Point (Courtesy of Richard Elgin, Rolla, Missouri)

(continued on page 6)

“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

The Baldrige brothers, and perhaps Scott, had earlier traveled hundreds of miles on the Missouri River and overland with Morgan and Nathan Boone in the salt trade. The Baldriges and Scott, like Prospect Robbins, had served together in St. Charles district militias during the late war. These outdoorsmen knew how to secure wild game, transport and protect provisions, create shelter in the woods, and carry tools, tents, and blankets critical to their mission.⁸

The crew floated in a flat-bottom boat down the Mississippi River, and docked at the mouth of the Arkansas River to travel inland. Planning the survey was crucial. Lying ahead for Robbins was a country that did not have any settlement along the proposed north/south meridian line in Arkansas and Missouri. The survival of the team and success of the mission lay in the skill of their hunting. Robbins, a schoolteacher and local surveyor in St. Charles district, already knew something about sensitive equipment, paper, ink, pens, mapping, and clerical responsibilities.⁹

Walking north for two months and one day, Robbins’ crew arrived at the Missouri River on December 28, 1815, after surveying 317 miles, a significant feat for tramping through swamps and rugged terrain, keeping equipment serviceable, and men well enough to work, while depending on animals and good behavior among the workers. The survey had been easier than expected, however, as drought had lowered the water levels in the swamps. The Fifth Principal Meridian became an immediate benchmark for subsequent surveys in Missouri, the largest state in the union, and settlers expected land offices to open soon.¹⁰

Josiah Meigs, who had become the Government Land Office commissioner, praised William Rector’s administrative work, and in April 1816 named him as surveyor general for the new district of Illinois, Missouri, and Arkansas – a vast land of millions of acres in the middle Mississippi River Valley. Rector presided over dozens of survey contracts that included hundreds of men extending from Indiana and Illinois into the prairies, uplands, and swamps of the Trans-Mississippi. Contract surveyors acquired a close knowledge of the land and many went into the real estate business themselves, or speculated with their federal wages on the cash-poor frontier. Lucrative contracts varied from \$2.00 to \$3.00 per mile surveyed, including expenses, and job applications poured into the land office. Rector’s reputation and wide influence made him an obvious choice among territorial leaders as a member of the Missouri constitutional convention in 1820.

Prospect Robbins (1788-1847), selected by Gen. Rector for federal patronage, was also an entrepreneur in territorial Missouri. Born in Pittsfield, Massachusetts, he migrated to Monroe, Lincoln County, in 1810. For almost twenty years,

Prospect centered his life in St. Charles and Lincoln Counties, alternately living in both. His brother, Joshua N. Robbins (1792-?), a merchant in the upper Hudson River Valley, near Troy, New York, came to Lincoln County after the War of 1812.¹¹

As an educated man, P. K. assumed roles in local government, the professions, and commerce. Robbins and James Callaway had a brief partnership in a gunpowder factory, located eighteen miles north of St. Charles in 1811. He tutored children before the war, work that he resumed afterwards, too. Robbins had enough liquid resources in 1812 that he loaned, and borrowed, money. More important for his primary profession, Silas Bent, deputy surveyor for Missouri Territory, recommended Robbins in August 1812 as one of

seven men to survey the new lands; he received his surveyor’s commission for St. Charles County in October 1814. As a literate man, he also served as auditor for the estate of territorial judge Timothy Kibby in 1814.¹²

Contract surveyors acquired a close knowledge of the land . . .

During the War of 1812, Robbins’ education probably accounted for several leadership posts that he held as a young officer. He served in fall 1812, then enlisted again at St. Charles on April 29, 1813, and was finally discharged May 18, 1815, at Portage des Sioux. As lieutenant, he was a junior officer under Capt. Nathan Boone and Capt. James Callaway, and became Adjutant, 1st Regiment, Western Armies of Mounted Militia of Missouri and Illinois, a post and duty familiar to Gen. William Rector. In September 1812, while serving in Maj. Morgan Boone’s militia, Robbins presided over a court martial. The charge against the soldier was “raising a riot while on guard,” that is, assault against James Clay, and members of the court martial included Sgt. John Baldrige, who soon joined Robbins on the Fifth Meridian survey. Baldrige and his peers convicted the accused Sgt. Drury Prichard and reduced his rank. In spring 1815, the St. Charles circuit court deputized Robbins to serve summons in at least one case. Gen. William Clark communicated Robbins’ appointment as surveyor in St. Charles County, but Robbins ironically declined it, as he did not want to travel from his home in Monroe throughout St. Charles County; he soon changed his mind about travel.¹³

In 1816, six months after completing his Fifth Meridian contract, P. K. married Elizabeth Evans (1784—c.1820s) in St. Charles, newly arrived with her father and siblings from the New River settlements in western Virginia. For the next decade, Robbins surveyed, taught school in St. Charles and Lincoln counties, and speculated in a number of real estate and commercial ventures. Their son, Jesse B. Robbins (1818-

(continued on page 8)

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“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

1879), became a surveyor, lawyer, county recorder and state representative in Ste. Genevieve County.¹⁴

Robbins had significant income from 1815 to 1818 due to contracts from Rector, as the federal government made preparations to open land sales to the public. Each party must have been satisfied with the other, suggested by the rapid succession of contracts. The Fifth Meridian fieldwork took two months, and P. K. had another three months to turn in his plats and notes to avoid a default payment back to the federal office in March 1816, a benchmark he met easily. Rector reserved the military bounty lands between the St. Francis and Arkansas Rivers for Robbins, but P. K. did not want to return to Arkansas, as he judged the work to offer too little in profits.¹⁵

So, in April 1816, Robbins committed, “agreeably to the laws of the United States,” to another five-month contract to run “the extension boundary lines” of townships in what today is part of Audrain, Boone, and Callaway counties. Rector reported to his superior that Robbins and two other deputy surveyors would “lay off and survey eighty townships ... a part of the largest, rich[est] and desirable tract of Country that is in the Missouri Territory or perhaps in the Western Country.” This expanse of land, vaguely included in St. Charles County, had already attracted settlers traveling along a route that became the future Booneslick Road.¹⁶

Following his spring and summer work, in September 1816, Robbins agreed to “subdivide into sections, and establish corners for quarter sections” in six months for land in southern Callaway County. In the standard contract, as previously stated, when trees were not available for marking corners, Robbins’ party built “mounds” that were a minimum of two feet, six inches high, and two feet, six inches in diameter

on Missouri’s prairies. Robbins and his crew may have completed this survey early, for in January 1817, he and partner, Joseph Evans, agreed to a more complex survey to be completed in one year. The contract directed work to begin at the Missouri River, where Robbins had ended the northern extension of the Fifth Meridian, to extend it northward to the Mississippi River (establishing what became the west boundary of St. Charles County), passing through modern Lincoln and Pike counties. Then, the survey team left Pharris Island surveying across land and water, and came down the Mississippi river, “including all islands belonging to the Missouri Territory,” to the mouth of the Missouri River, then up the Missouri to their beginning point. Then, they subdivided and surveyed into sections and corners for quarter sections

most of St. Charles County in an area bounded by the two major rivers, the Fifth Meridian on the west, and a township forth-seven north boundary that runs east approximately from near Enon to Peruque to Dardenne Island, and toward West Alton. In St. Charles County, they could include the “out lots common, and field lots,” but not the commons and village lots in St. Charles and Portage des Sioux. At the contract fee of \$3.00 per mile, Robbins grossed an income that he could use in land speculation and commerce.¹⁷

Although Robbins did well in many pursuits, litigation for debt followed him for years. Whereas the “corps of surveyors” financed by Gen. William Rector’s federal patronage had put money into the hands of hundreds of territorial pioneers, Rector’s same network offered intelligence to attorneys looking to settle financial claims. For example, St. Louisan William Russell, deputy surveyor in Arkansas in 1816, purchased financial notes of other surveyors, including that of P. K. Robbins. Robbins’ note was only \$14.38, but Russell had others that rose into the hundreds of dollars. Russell wrote to attorney Charles Lucas in St. Louis on March 7, 1816, saying, “These notes I have bought and paid for. But as I wish them collected without delay and I am friendly with these men on whom they are, I did not have them assigned, as they expect indulgence from me, which they cannot from you, as an attorney collecting money from a client at a

distance. I do not wish them to know the notes are mine. You need not sue until I come [to St. Louis] but urge the payment....the Mr. Rectors and Mr. Robbins you know....Gen. Rector can tell you who any of them are and where they are.” William Russell was speculating in Arkansas lands and wanted the cash flow for his own obligations.¹⁸

The ever-important social connections could also play to

Robbins’ advantage. In June 1818 when correspondent Joseph Wiggin wanted to locate land in secret he asked Israel Reed to “ascertain if Prospect Robbins the surveyor” would meet him in St. Charles to do business.¹⁹ They met, and ultimately Robbins borrowed \$323.22 from Wiggin the following May. Robbins and a partner had already indebted themselves a year earlier to another creditor for \$708.38 in a transaction involving lead. By June 15, 1819, Robbins had borrowed almost \$3,500 from attorney Rufus Easton, and owed at least \$4,615.32, a very substantial debt, all of which was the subject of four lawsuits against Robbins in Lincoln County circuit court. Robbins’ contracts for surveying resulted

P.K. Robbins’ survey work and his legal difficulties existed side-by-side into the 1820s. He did, however, keep his reputation intact, as he held several local government offices.

(continued on page 10)

MO Colleges/Universities Where Land Surveying Coursework is Available

The following list will be updated quarterly as new information becomes available.

Longview Community College - Lee's Summit, Missouri

Contact: Ken Eichman
Longview Community College
Science and Technology Bldg.
500 Longview Road
Lee's Summit, Missouri 64081
816-672-2283

Florissant Community College - St. Louis, Missouri

Contact: Ashok Agrawal
Florissant Community College
3400 Pershall Road
St. Louis, Missouri 63135
314-595-4535

Missouri State University - Springfield, Missouri

Contact: Thomas G. Plymate
Southwest Missouri State University
901 So. National
Springfield, Missouri 65804-0089
417-836-5800

Mineral Area College - Flat River, Missouri

Contact: Jim Hrouda
Mineral Area College
P.O. Box 1000
Park Hills, Missouri 63601
573-431-4593, ext. 309

Missouri Western State University - St. Joseph, Missouri

Contact: Department of Engineering Technology
Missouri Western State University
Wilson Hall 193
4525 Downs Drive
St. Joseph, MO 64507
816-271-5820
www.missouriwestern.edu/EngTech/

St. Louis Community College at Florissant Valley

Contact: Norman R. Brown
St. Louis Community College at Florissant Valley
3400 Pershall Road
St. Louis, Missouri 63135-1499
314-595-4306

Three Rivers Community College - Poplar Bluff, Missouri

Contact: Larry Kimbrow, Associate Dean
Ron Rains, Faculty
Three Rivers Community College
2080 Three Rivers Blvd.
Poplar Bluff, Missouri 63901
573-840-9689 or -9683
877-TRY-TRCC (toll free)

University of Missouri-Rolla - Rolla, Missouri

Contact: Distance & Continuing Education
University of Missouri-Rolla
conted@umr.edu
103 ME Annex
Rolla, Missouri 65409-1560
573-341-4132

University of Missouri-Rolla - Rolla, Missouri

Contact: Surveying Courses in Civil Engineering
Dr. Bill Schonberg, Chairman
University of Missouri-Rolla
Dept. of Civil Eng.
civil@umr.edu
1870 Miner Circle
Rolla, Missouri 65409-0030
573-341-4461

University of Missouri-Columbia, Missouri

Contact: Lois Tolson
University of Missouri-Columbia
W1025 Engineering Bldg. East
Columbia, Missouri 65211
573-882-4377

Missouri Southern State College - Joplin, Missouri

Contact: Dr. Tia Strait
School of Technology
3950 E. Newman Rd.
Joplin, MO 64801-1595
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“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

in superior cash remuneration in territorial Missouri, however, conducting successful commercial transactions on time and credit was difficult. Did Robbins suffer extremely bad financial luck? Did his partners leave him “holding the bag?” Whatever the reasons, given the amount of Robbins’ debts in eighteen months, one may wonder about the wisdom of Robbins’ money management.²⁰

P. K. Robbins’ survey work and his legal difficulties co-existed side-by-side into the 1820s. He did, however, keep his reputation in tact, as he held several local government offices. He joined local leaders as a signatory to a petition to incorporate the Town of St. Charles in 1817, and in 1819-1820, he served as a Justice of the Peace in Monroe Township, in the new Lincoln County. P. K. purchased two city blocks in the new county seat of Monroe, the first elections in Monroe Township were held in his house, he was on the first grand jury, and he was an overseer for the roads in Monroe Township, including a new one from Monroe to Wood’s Fort (Troy). Crossing the Cuivre River into St. Charles County, he taught a subscription school on Howells’ Prairie, and instructed apprentices in surveying; his students were children of affluent settlers. And, he acquired a new title in 1821, when he received promotion as brigadier general of the state militia.²¹

While Robbins served local government, his creditors, reeling from the serious consequences of the 1819 national depression, began to take Robbins to task in circuit court. Bringing forceful legal challenges to Robbins were attorney partners, Thomas H. Benton and Robert Farris of St. Louis, William Smith, a local lawyer, and eventually Rufus Easton, prominent regional attorney, businessman, and Missouri’s attorney general (1821-1826), and Henry Geyer, Speaker of the Missouri House of Representatives during the litigation, and considered by many as Missouri’s most able lawyer. One Robbins case ultimately involved more directly his brother Joshua N. Robbins and George Collier. They employed legal maneuvering of their own that kept P. K. out of debtors’ prison and postponed for years a legal decision for debt responsibility. The defense included Robert Wells, future attorney general (1826-1836), Joshua Barton (secretary of state (1820-1821), until he was killed in a duel in 1823, and Edward Bates, recent attorney general (1820-1821).²²

Rufus Easton sued Prospect Robbins in Lincoln County circuit court in August 1820 and received judgment for an \$1,800 note. Easton became Missouri attorney general, assigned his note to Dr. John T. Nash, and continued to seek

satisfaction for Nash in Missouri’s circuit and Supreme Court for several years. Easton’s efforts, and P. K. Robbins’ defense, mounted by his signatories to his recognizance bond, George Collier and Joshua Robbins, became embroiled in technicalities and legal interpretation that had long term consequences.

In January 1821, the St. Charles County sheriff took Robbins into custody for debt. P. K., aided by friend and St. Charles merchant John Collier, posted a \$2,000 security bond for his temporary freedom until a hearing in the February term of court, John T. Nash pursued Robbins to collect his \$1,800. At the same February term, attorney Robert Farris represented the estate of Joseph Wiggin to sue Robbins for collection of the earlier \$323.22 note, and John Collier signed a security bond for Robbins on this suit, too. When Robbins failed to make payment on these claims by summer 1821, plaintiff attorneys, Benton and Farris, petitioned the court to command sheriff Hiram Baber to take Robbins to jail on July 31, 1821. This time, St. Charles merchant George Collier (John’s brother) came to his aid, as did Troy co-founder, merchant, and brother, Joshua N. Robbins, and they posted a “prison bond” in the face of P.K.’s mounting legal difficulties.²³

Shortly thereafter, on August 10, 1821 – the official date for Missouri statehood under its first constitution – Robbins appeared before judge Rufus Pettibone to take advantage “of the act concerning insolvent debtors.” The act allowed the court to reserve such items as bedding for his family, selected household furniture or weapons, and “implements of his trade or occupation.” Robbins presented sheriff Baber’s certificate of his assets that included his “surveyor’s

compass and chain with plotting instruments, a horse and wagon, old joiners tools, six or eight books, one gang of hogs, supposed to be 60 or 70 running on Cuivre near Monroe,” all included with a very modest list of household items. Robbins also submitted two-dozen “notes and accounts” due him worth about \$303.00. Under the insolvency act, some of Robbins’ assets were legally exempt from creditors. However, Robbins’ major creditors included Rufus Easton (\$5,000), Dr. John T. Nash (\$1,800), Joseph Wiggin (\$400), and others presenting claims that totaled over \$9,000. Another list included questions of whether or not seven or eight others were actually creditors or debtors to Robbins; William Rector and parties in New York were on it, suggesting loose bookkeeping related to land speculation. Robbins’ pledge of insolvency

While Robbins served local government, his creditors, reeling from the serious consequences of the 1819 national depression, began to take Robbins to task in circuit court.

(continued on page 11)

“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

“discharged and exempted him from arrest and imprisonment” until the fall, when the St. Charles County circuit court would hear subsequent petitions.²⁴

Depositions indicated that George Collier began to feel uneasy about his security bond for Prospect Robbins. Accordingly, P. K. offered himself for jail in April 1821 to relieve Collier and Joshua Robbins from the bond, but Easton interfered with P. K.’s surrender. Easton convinced the surveyor not to surrender, so the case could remain open, while masking his desire to litigate against Collier and Robbins for his money. After the failed surrender of Robbins to the Lincoln County sheriff, the case went to St. Charles circuit court in March 1822, where the defense successfully argued that Easton had improperly and fraudulently advised Robbins. The St. Charles case, brought when Collier was in Philadelphia, included a witness who testified that Easton told him that George Collier was “a young man and rich [and] that he could pay the debt without feeling it, that he the plaintiff was poor, had a large family, and that it would be hard for him to lose it.” The St. Charles jury concluded that Easton’s fraud trumped any satisfaction due, and did not award Easton any compensation. Judicial sparring continued.²⁵

The court records in St. Charles did not exactly match those sent from Lincoln County. There were variances in the specific amount of the debt and damages being argued. Judge Rufus Pettibone in St. Charles, at the conclusion of the trial, had instructed the jury to see that certain notes of his were entered “in proper form” into the circuit clerk’s records. Later, in an appeal to the Supreme Court, a deposition related that Edward Bates “took it upon himself to superintend the [St. Charles] entry and made the entry himself in the minutes of the clerk,” much to the dissatisfaction of plaintiff Rufus Easton. The witness was none other than former St. Charles circuit judge Rufus Pettibone, who, at the time of his testimony about the lower court’s records, had been elevated as a judge on the Supreme Court bench (Pettibone recused himself from commenting on other issues in the litigation).

Easton appealed to the Supreme Court in April 1824 and received partial satisfaction, but the superior court returned the case to St. Charles, and, after another hearing, in October 1824, Easton had the case back before the Supreme Court, where it ruled in a dispute as to which local court had jurisdiction – Lincoln or St. Charles. Easton received a decision for the latter, and the superior court remanded the case back to St. Charles circuit court for his petition to be heard in July, postponed to October 1825. Finally, Easton and Henry Geyer appealed the case to the Supreme Court

for the third time in April 1826. The superior court ruled in Easton’s favor, directing that George Collier and Joshua Robbins bear responsibility. The decision included a heavy damages penalty for lawyers and court fees that ballooned the \$1,800 debt to \$2,605.61 1/4., satisfied in full in September 1826.²⁶

However bleak Prospect Robbins’ sheet looked, the surveyor kept a visible role in St. Charles local government.

In fall 1822, Robbins had offered an option to Easton, perhaps in an attempt to satisfy a portion of his embarrassing indebtedness. George Atchison had detained Robbins’ slave, twenty-three-year-old Susan, nicknamed “Sookey,” who Robbins had probably hired out as a domestic to Atchison. For

whatever reason, Atchison kept Susan from returning to P. K.’s house. Rufus Easton successfully represented Robbins in a replevin suit, and the St. Charles circuit court sent sheriff Baber’s deputy after Susan who delivered her to Robbins on November 4, 1822. The court valued Susan at \$600.00. There is no evidence to explain what happened to Susan. Did Robbins keep her? Did he transfer her ownership to Easton, or allow her sale to soften Easton’s irritation of Robbins’ indebtedness to him? The court records do not say.²⁷

However bleak Prospect Robbins’ balance sheet looked, the surveyor kept a visible role in St. Charles local government. In 1821, Gov. Alexander McNair appointed Robbins as St. Charles County surveyor, and this time he accepted the post. In 1822, St. Charles city government appointed him to draft an ordinance for the location and maintenance of a free public school, which commenced the following year. In 1823, the St. Charles circuit court appointed Robbins as one of three commissioners to partition land in Prairie Haut Field. By the mid-1820s, P. K. was serving on the city’s Board of Trustees.²⁸

Robbins continued to appear as plaintiff and defendant in additional litigation. In July 1823, he received judgment for a four-year-old survey job he performed for Joseph Voizard. It was for “six miles, 25 chains, and 33 links” at \$3.00 per mile, plus interest. Surely, this small contract was representative of dozens that Robbins did in St. Charles and Lincoln counties. Even though Robbins kept working, bad news from the national depression haunted him, as it did thousands in Missouri, while land prices plummeted, and bankruptcies mounted. Governor Alexander McNair, himself ruined by the depression, called a special session of the legislature in July 1821 and established five loan offices, one in St. Charles, to lend up to \$1,000 to oppressed Missourians. Moreover, the legislature passed a bill that permitted a “two-and-a-half-year

(continued on page 12)

“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

moratorium on foreclosures.” P. K. was one who sought financial refuge at the loan office in November 1821, but in July 1825, attorney general Rufus Easton, representing the State, filed suit for the debt. The State received judgment and P. K. paid a \$107.00 obligation to the St. Charles sheriff in March 1826. That same month, March 1826, the St. Charles circuit court rendered a judgment of \$193.88 against P. K. and Joshua Robbins to settle their account with an estate. According to currently known records, this is the last judicial action involving the famous surveyor in St. Charles County.²⁹


Before Robbins left the county, he was involved in one more important regional benchmark. Travelers going overland to the West took various wagon roads. In 1827, the county court appointed Lt. Col. Nathan Boone to survey a Boone’s Lick Road, and, responding to a subsequent citizen’s petition, added Gen. P. K. Robbins to the task in February 1828. The veteran militia brothers choose the route that became the most famous interior road in Missouri.³⁰

Sources indicate that after eighteen years of frontier life in St. Charles and Lincoln counties, and at forty years of age, presumably as a widower with a young son, P. K. and Jesse moved to Ste. Genevieve. Perhaps Robbins tired of his court appearances, perhaps he was physically debilitated from his years of work in the outdoors, or perhaps stress from an embarrassment of financial ventures, including brother Joshua’s legal liability for him, convinced P. K. to seek life elsewhere. Genealogical research also suggests that a social indiscretion may have encouraged him to leave St. Charles County. It is not clear when his wife, Elizabeth Robbins, died, presumably in the mid-1820s, but records have emerged that offer circumstantial evidence that P. K. fathered an illegitimate child, Joseph Edward, by Marie Therese Panton in February 1825. Panton married Thomas Langley, who died in early 1850, while the family lived in St. Louis, and only then did Marie apparently tell son Joseph who was his natural father. In January 1850, when he married, Joseph took his father’s name, becoming Joseph Edward Robbins (1825-post 1880), and named his first son, in December 1850, Prospere, after Prospect K. Robbins; he named his third son, in 1855, after his half-brother, Jesse.³¹

Whatever the case, apparently P. K. Robbins left St. Charles in 1828, and spent the last generation of his life near Jesse. Court actions in Lincoln County that involved his benefactor and brother Joshua indicate that his merchant kin continued to help a financially prostrate Prospect Robbins. Unfortunately, in 1833, Joshua Robbins endured his own financial collapse, as a Philadelphia merchant demanded an accounting of overdue payments. The litigation reveals that

Joshua expected “to pay about fifty cents to the dollar” toward more than \$10,000 in arrears to several Philadelphia creditors. The brothers had apparently remained on good terms, as the accounting presented to the court listed money and mercantile goods extended to Prospect Robbins for \$235, and to Prospect and his son Jesse for \$126.26. However, it appears that Joshua’s beneficence to P. K. may have led to his ultimate failure in Troy. P. K. still owed \$5,000 to

Joshua for covering his long past obligation to Rufus Easton; it was “a claim on Prospect K. Robbins without writing or evidence for,” in other words, Joshua paid for his older brother’s failed land speculation and sour investments, which had heightened by the 1819 depression. Joshua’s summary before the court on January 21, 1834, concluded, “P. K. Robbins note is connected with circumstances that renders it very uncertain whether it will ever be paid or could be collected.” Joshua liquidated his real and personal properties to satisfy creditors, and by 1834, both brothers, who contributed significantly to county seat developments in St. Charles, Monroe, and Troy had lost small fortunes.³²

In 1834, Prospect Robbins married for a second time to Harriet Neil, who had children from a previous marriage. In May 1847, shortly before his death at age fifty-nine, P. K. Robbins was baptized in the local Catholic Church and was buried in Memorial Cemetery. Jesse Robbins, who, like his father, had a career as a county seat businessman, administered his father’s modest estate.³³ 

(Endnotes)

¹ “Memorial to Famous Surveyor Dedicated at Historic Cemetery,” *Ste Genevieve Herald*, November 22, 2006.

² The Missouri State Archives, Local Records Preservation Program, and willing co-sponsors in local governments and civic organizations, have worked for several years to position millions of nineteenth-century judicial court records, never before used by the public for research and writing about the formative decades in state history. Archivists recently completed an 1805-1835 case file series for St. Charles County, available in the St. Charles Historical Society and at the Missouri State Archives. The Stoddard reference is in Floyd Shoemaker, *Missouri and Missourians* (Chicago: Lewis Publishing Company, 1943), 201.

³ The federal government transferred the original survey records to Missouri in August 1874. C. Albert White, *A History of the Rectangular Survey System* (Washington D.C.: Bureau of Land Management, 1984, 212. They now reside at the Missouri Department of Natural Resources, Land Survey, Rolla, and on microfilm at the Missouri State Archives (hereinafter MSA).

⁴ George R. Wilson, *Early Indiana Trails and Surveys* (rpt. 1919, Indiana Historical Society Press, 2002), 50, 57, 75 and 101; and Ted Morgan, *Wilderness at Dawn, The Settling of the North American Continent* (New York: Simon and Schuster, 1993, 466-79, for a good summary on the Rector family’s survey work. The Third Meridian runs down the middle of Illinois.

(continued on page 14)

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“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

⁵ Meigs’ quote is in Malcolm Rohrbough, *The Land Office Business* (New York: Oxford University Press, 1968), 187. Rohrbough’s work on Rector, in several sections of his book, is the most sophisticated to date, and the only work to consult relevant federal records in the National Archives. The Ohio Historical Society gives a Tiffin Award to honor recipients for their extraordinary contributions to state and national history.

⁶ C. Albert White, *A History of the Rectangular Survey System*, 1984. Joseph C. Brown (?-1846), a Virginian, became very successful. It appears that before statehood Brown had a New Madrid claim of 2,200 acres and five slaves on the Missouri River in Franklin County, became a county sheriff and collector in St. Louis County, and citizens elected him to the Missouri state senate in 1824 and 1826, while he lost a U.S. Senate bid to Thomas H. Benton in 1826; he became St. Louis County surveyor in 1829, and later, St. Louis City engineer. By the early 1830s, he appears to be a clerk for the Supreme Court in St. Louis, and was a survey contractor statewide, c. 1820s-1840s, including an eastern portion of the Santa Fe Trail in 1824. See Franklin County tax assessments, 1819-1820, Western Historical Manuscript Collection-Columbia; Brian King, “The Delimitation and Demarcation of the State Boundary of Missouri,” master’s thesis, University of Missouri, December 1995, 48, and *ad passim*; James Clemons v. Joseph C Laveille and George Morton, St. Louis circuit court, March 1834, debt, Supreme Court opinion within the case, signed by Joseph C. Brown, clerk, and “I Well Remember”: David Holmes Conrad’s Recollections of St. Louis, 1819-1823,” ed. James Goodrich and Lynn Gentzler, Part I, *Missouri Historical Review* (October 1995), 13.

⁷ For Rector’s idea of the Missouri meridian survey, see White, *A History of the Rectangular Survey System*, 61, and Malcolm Rohrbough, *The Land Office Business* (New York: Oxford University Press, 1968), 187-89. Rector’s federal salary as surveyor general was \$2,000 annually, but registrar Alexander McNair received \$3,203 and receiver of public money Samuel Hammond got \$3,206, Frederick Hodes, *Beyond the Frontier, A History of St. Louis to 1821* (Tucson, AZ: Patrice Press, 2004), 471; and Rohrbough judged that “success was Rector’s greatest enemy,” as Rector was one of the most efficient federal administrators of his day. Rector’s success led to charges of corruption in a political smear campaign engineered by the Bartons against the Rectors. Coincidentally, one of the Rectors most vocal opponents was Rufus Easton, who had provided a legal apprenticeship to Joshua Barton. Finally, William Rector’s brother, Thomas, represented the Rector family on Bloody Island and killed Joshua Barton in a duel in 1823, and he was buried in St. Charles. The federal government removed William Rector from office the following June, and he retired to his St. Louis County farm. Dick Steward, *Duels and the Roots of Violence in Missouri* (Columbia: University of Missouri Press, 2000), 54-57, for the duel.

⁸ See Mary Ellen Rowe, *Bulwark of the Republic: The American Militia in Antebellum West* (Westport, CT: Praeger Publishers, 2003) for a discussion of how the militias were populist in nature, served as social and political institutions, and how the culture of militias aided the advancement of its members.

⁹ For the frontier surveyors’ experience, see Dwight L. Agnew, “The Government Land Surveyor as a Pioneer,” *Mississippi Valley Historical Review* (vol. 28, 1941), 369-82.

¹⁰ Robert R. Logan, “Notes on the First Surveys in Arkansas,” *Arkansas Historical Quarterly* (Autumn 1960), 267; Larry Young, “The Monument in the Swamp,” typescript, 1980, p. 3, cites the original GLO notes in Little Rock, Arkansas, for John Baldrige, as axe man, and Alexander Baldrige and Hiram Scott, as chain carriers, and Richard Elgin computed that Robbins covered the flat, steep, and rolling topography from 4.87 to 6.72 miles per day, Richard Elgin, “The Fifth Principal Meridian,” typescript, p. 6, both in papers of Elgin Surveying and Engineering, Inc., Rolla, Missouri; John C. Nelson, “Presettlement Vegetation Patterns along the 5th Principal Meridian, Missouri Territory, 1815,” *American Midland Naturalist*, 137: 79-94, concluded that the Ozarks was an open woodlands – savannah lands – and had a strong relative density of shortleaf pine; “Shortleaf Pine Symposium,” *Missouri*

Conservationist (October 2006), 30, says that the southern Missouri shortleaf pine and oak-pine forest acreage today is only one-tenth of the original forest, not surprising in that the transect coming north from Arkansas passed through Ripley, Carter, Reynolds, Iron, Washington, and Franklin counties emerging east of modern Washington on the Missouri River; and King, “The Delimitation and Demarcation of the State Boundary of Missouri,” 94, for the largest state in the Union. Modern readers of these surveys are well acquainted with the surveyor’s phrase, “more or less,” a legacy of inexact, but “pretty close” frontier work. Robbins expected to encounter water three to fifteen deep in the swamps, but it was “uncommonly low” and his crew managed “without much difficulty on account of water,” William Rector to Edward Tiffin, January 15, 1816 in *The Territorial Papers of the United States*, ed. Clarence Edwin Carter, vol. XV (Washington D.C.: US Government Printing Office, 1951), 103.

¹¹ Family and business background for Joshua Robbins is in Abel Wyman v. Joshua Robbins et al, September 1833, debt, Lincoln County circuit court, MSA.

¹² Photocopies in the Richard Elgin file include notes from the *Missouri Gazette*, September 3, 1814, for the Kibby auditor reference and *Louisiana Gazette*, December 4 and 7, 1811, for the gunpowder factory. Lewis Howell recalled being a student of P. K.’s before and after the war in William S. Bryan and Robert Rose, *A History of the Pioneer Families of Missouri* (Baltimore: Genealogical Publishing, 2002, rpt., 1876), 154-58. Survey records in *Territorial Papers*, vol. XIV, 590 & 793.

¹³ Photocopies for the court martial are from the Missouri Historical Society and in the Elgin Papers. Robbins served summons to former militiamen James and John Callaway, David Porter, and Elijah Collard in April 1815 in George Wheland v. Jeremiah Groshong, St. Charles circuit court, October 1814, a labor debt case at a mill on Cuivre River, MSA.

¹⁴ Elizabeth Evans’ mother died in Wythe, VA, June 7, 1815, Letter, Jerry Bader to Dick Elgin, September 28, 2005, Elgin Papers. Many of Elizabeth’s siblings migrated and married in Callaway County, MO.

¹⁵ William Rector to Edward Tiffin, April 22, 1816 in *The Territorial Papers of the United States*, vol. XV, 130. Rector examined and accepted Robbins’ work on January 6, 1816, photocopy of “Field Notes of Fifth Principal Meridian Survey,” courtesy of Michael Flowers, DNR, Land Survey, Rolla, Mo.

¹⁶ Letter, William Rector to Edward Tiffin, *The Territorial Papers of the United States*, Vol. XV, 1815-1821, ed. Clarence Edwin Carter (Washington D.C., 1951), 131-32. Contracts are in United States Surveyor General of Missouri Surveys, 9 October 1815 – 8 May 1843, MSA.

¹⁷ Contracts are in United States Surveyor General of Missouri, Surveys, 9 October 1815 – 8 May 1843, MSA. Robbins’ crew may have included his St. Charles neighbors, e.g., men from the Baldrige and Scott families that were with him on the Fifth Meridian, but the contract records do not record the axemen, chainmen, hunters, etc. Apparently, Robbins and Evans released the work for the northern extension of the Fifth Meridian, as deputy surveyor Taylor Berry agreed to do it two weeks after Robbins and Evans signed up for it; see Survey Books, Vol. 2, 721/007, copy from Michael Flowers, State Land Surveyor, to Lynn Morrow, January 18, 2007. Nathan Boone witnessed the Berry agreement. Public land sales began in St. Louis on October 1, 1818, Shoemaker, *Missouri and Missourians*, 206.

¹⁸ In Arkansas, William Russell worked under Thomas Rector, see Morgan, *Wilderness at Dawn*, 476; Russell letter to Lucas, March 7, 1816, titled in the original, “At Camp below Mouth of St. Francis,” in Elgin Papers; Russell was also buying New Madrid land claims for speculation, see Elgin Papers, copies from collections in the Missouri Historical Society, St. Louis. By April 29, 1816, William Russell had submitted 309 land claims to the general land office, twenty-three were confirmed, Floyd Shoemaker, *Missouri and Missourians* (Chicago: Lewis Publishing Company, 1943), Vol. 1, 201.

(continued on page 16)

Solar deflector
(hat)

Spider Web Catcher
(target)

Please don't shoot me
(safety vest)

2-D
Navigation
System
(compass)

Digital yelling device
(radio)

Surveyor's
duct tape
(roll flagging)

For
driving
rebar
(hammer)

Not
for
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“A Surveyor’s Challenges: P.K. Robbins in Missouri” (continued)

¹⁹ Photocopy, June 7, 1818, Elgin Papers.

²⁰ Three of the Lincoln County circuit court suits are in the April 1820 term: Thomas Jackson v. John Evans and Prospect Robbins, debt for a January 6, 1818, \$708.38 note for eighteen months concerning lead; Robert and John Heath v. Jesse Campbell and Prospect Robbins, debt on a June 3, 1819, \$120 note for sixty days; Rufus Easton v. Prospect Robbins, debt for two notes, June 15, 1819, one due in six months, the other in nine months, totaling \$3,463.72; and Ira and Almond Cottle co-signed security bonds for Robbins in all three cases. The fourth case was Clarissa Wiggin, administratrix, v. Prospect Robbins, debt for a \$323.22 note to her late husband dated May 8, 1819, all at MSA.

²¹ Dorothy McPheeters and Audie Kelly, *People and Places of Southeast Lincoln County* (private print, May 1981), 3, and *History of Lincoln County* (Chicago: Goodspeed Publishing Company, 1888), 261-63. Robbins did not benefit from the Lincoln County public land survey contracts, but Morgan Boone reputedly surveyed there; see *History of Lincoln County*, 291. Robbins’ militia authority extended over Pike, Ralls, Lincoln, St. Charles, Montgomery, Callaway, and Gasconade counties, Daniel T. Brown, *Westerning River, Westerning Trail, A History of St. Charles County, Missouri to 1849* (St. Charles: St. Charles County Historical Society, 2006), 222.

²² Geyer was Speaker 1820-1825. He is well known as the slave-owner defense attorney for John Sanford in the famous Dred Scott case in Missouri, *Dictionary of Missouri Biography*, Lawrence O. Christensen, et al, eds. (Columbia: University of Missouri Press, 1999), 335-36. The young Wells (1795-1864) had just spent 1816-1819 as a deputy surveyor in Missouri and Illinois, began his legal practice in 1820 in St. Charles, designed the Missouri State Seal in 1821, and was a state representative 1822-1826; he was a federal judge in the US Circuit Court, St. Louis, that ruled against Dred Scott, *Dictionary of Missouri Biography*, 788.

²³ John T. Nash v. Prospect K. Robbins, St. Charles circuit court, February 1821, debt, and Clarissa Wiggin, administratrix, v. Prospect K. Robbins, St. Charles circuit court, February 1821, debt, and case documents have the prison bond, MSA. Joshua N. Robbins was the first merchant in Troy, c. 1818, and was instrumental in getting the county seat moved to Troy in 1828, as J. N. Robbins and George Collier, who donated two blocks of land for the courthouse, were principal founders of the new town. Robbins and Collier continued making additions to Troy into the 1830s. Mrs. Collier, a wealthy widow, brought her two sons, John and George, from Philadelphia to St. Charles in 1815. In 1830 the Colliers erected the town’s first Methodist Church, and, in 1834, established St. Charles College; George married Frize Morrison, the daughter of merchant James Morrison. See Paul Hollrah, *History of St. Charles County, Missouri, 1765-1885* (private print, 1997, rpt Goodspeed), 302-303, and *History of Lincoln County*, 272, and 429-432. In St. Charles, Collier had a combined house/store building on Main Street, and later, stores in Troy and St. Louis.

²⁴ Prospect K. Robbins, St. Charles circuit court, August 1821, insolvent debtor, has his inventory, notes, accounts, and creditors listed. See insolvency summarized in *Laws of a Public and General Nature Ō and of the State of Missouri, up to the year 1824* (Jefferson City: W. Lusk & Son, 1842), 745-50. Rufus Easton v. George Collier and Joshua Robbins, St. Charles circuit court, March 1822, debt, has details about Prospect Robbins debt litigation that extended back to Lincoln County circuit court, August 1820, includes Collier and brother Joshua’s “pledge and bail” for Prospect, and a number of subsequent court actions, including moving the case to the Supreme Court in 1824, and back down to St. Charles in 1825, MSA. The final Supreme Court case is Rufus Easton v. George Collier and Joshua Robbins, action on debt, 1826, also at MSA.

²⁵ Easton’s quote is in the 1826 Supreme Court case. The Eastons had eleven children, and for their wide social connections see Bruce Campbell Adamson, *For Which We Stand, The Life, and Papers of Rufus Easton, 1774-1834* (private print: Bruce Adamson, Santa Cruz, CA, 1994).

²⁶ The case can be followed in Rufus Easton v. George Collier and Joshua N. Robbins, St. Charles circuit court, March 1822; and in the published *Decisions of the Supreme Court of the State of Missouri from 1821 to 1828* (St. Louis: Orr & Keemle, 1829), 420ff.; 467ff.; and 603ff. In 1831, Geyer married Easton’s daughter, Joanna Quarles, in Adamson, *For Which We Stand*, 216.

²⁷ Prospect K. Robbins v. George Atchison, St. Charles circuit court, November 1822, slave replevin suit, MSA.

²⁸ St. Charles circuit court, May 1823, appointment of commissioners to partition land, Prospect K. Robbins, John J. Wheeler, and Nathaniel Simonds were the commissioners, and see Elgin Papers, for Robbins on the Board of Trustees, and also note that George Collier, litigant in the Rufus Easton case, was chairman of the St. Charles Board. At this time, there was still much dispute over colonial and private land claims in Missouri, and in some cases, litigants sent warnings in writing to regional surveyors to desist in running lines within the bounds of those surveys, as Louis Labeaume did to P. K. Robbins in John T. Nash to Surveyor General Rector, August 8, 1823, U.S. Surveyor General Letters, 1815-1826, MSA.

²⁹ Prospect K. Robbins v. Joseph Vizard, St. Charles circuit court, July 1823, appeal for survey debt, MSA; the moratorium is discussed by R. Douglas Hurt, “Seeking Fortune in the Promised Land: Settling the Boon’s Lick Country, 1810-1825,” *Gateway Heritage* (Summer 1992), 15; State of Missouri v. Prospect K. Robbins and Ruluff Peck, St. Charles circuit court, July 1825, MSA; the original debt was to Easton and the loan office had assumed the note; ironically, then Easton represented the State to collect it. Robbins’ payout was \$107.55. See Timothy W. Hubbard and Lewis E. Davids, *Banking in Mid-America, A History of Missouri’s Banks* (Washington D.C.: Public Affairs Press, 1969), 40-41, for the loan offices in St. Charles, St. Louis, Cape Girardeau, Boonville, and Chariton. The last case is Nathaniel Simonds, administrator (for John Thompson, deceased) v. P. K. and Joshua Robbins, St. Charles circuit court, March 1826, debt, MSA. The Elgin Papers includes an 1817 individual survey of 1,000 arpents by Francis Saucier that uses the chimney of the house as a reference point. Joshua N. Robbins continues to be a litigant in St. Charles and Lincoln counties into the 1830s.

³⁰ Brown, *Westerning River, Westerning Trail*, 302-03.

³¹ See Prospect K. Robbins file, St. Charles County Historical Society, courtesy of Bill Popp, archivist.

³² Abel Wyman v. Joshua Robbins et al, September 1833, Lincoln County circuit court, MSA. This complex suit that did not end until 1837 demonstrates a context for long distance trading of the time and records developments in Troy; Robbins’ co-defendants were Joshua’s sons, Charles and William Robbins, George Collier, Francis Parker (Lincoln County clerk), David Bailey (Lincoln County sheriff), and Consider White (Joshua’s father-in-law in New York).

³³ The Ste. Genevieve cemetery records have Robbins’ age as sixty-five at his death, making his birth year 1782; however, other work in the Robbins family history, e.g., Lloyd Mattmann’s “Robbins Ancestry, Supplement to Mattmann Ancestry, Switzerland-Missouri, 1600-1997,” typescript, has 1788 for his birth year, copy in the St. Charles County Historical Society. Joshua N. Robbins, according to the 1830 census, lived in Lincoln County with his wife and five children, but apparently moved elsewhere by 1840. Jesse B. Robbins’ c. 1867 brick house stands at 199 Merchant Street in Ste. Genevieve.



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Fiftieth Anniversary Convention Missouri Society of Professional Surveyors Tan-Tar-A Resort, October 5, 2007

by Bob Priddy



Thank you for asking me to join you tonight.

I spend my reporting life watching the disorder that we call state government reporting on the chaos we call politics. I think the people I cover have certain similarities to surveyors and some major differences.

Both seek to define direction. Both seek to define or impose limits.

Both seek to maintain order and structure without which society could not function in an orderly manner.

However, you often get to work in the out of doors, in the pure clean air of the outside. They work indoors in the rarified air of importance.

They have dozens of people who consider them important. You have a few people who think you are necessary.

Their value to those who become their friends lasts only so long as they are in a position to be beneficial. Your value is far longer-lasting and is of value because professional standards require actions without fear or favor.

Politics is an inexact science. Surveying requires exactitude.

Both politicians and surveyors deal in metes and bounds, but of different kinds, in much different ways.

It has taken us more than 200 years to arrive at the state of our state today. Politicians have shaped it in their way. Surveyors have shaped it in their way.

I want to tell you how your predecessors did it.

We live in a state that has not been easily shaped. Missouri's borders have been formed along the meandering paths of rivers, by the willpower of at least one wealthy landowner, through statute, survey, and by court decision.

The legal process that has given us our borders has been as torturous as those rivers. The United States Supreme Court has decided more lawsuits about the boundaries of Missouri than about the boundaries of any other state.

Our borders lack the foursquare orderliness of Colorado or Utah. And in fact, when this area became American territory there were few borders at all.

But that seems perfectly normal for a transaction that could be considered one of the greatest land frauds in world history.

—For you see, France illegally sold land it did not own to representatives of a nation that had not authorized them to buy it. The French negotiator violated the French constitution in making the deal, and the United States Constitution had no provision for expansion of the nation through treaty.

When American Ambassador Robert Livingston asked his French Counterpart, BeBe Marbois, if the western boundary should be “construed our own way,” he was told, “I can give you no direction. You have made a noble bargain for yourselves and I suppose you will make the most of it.” Tonight I want to talk about how Missouri's early surveyors did just that.

“Making the most of it began with a treaty between the United States and the Sac and Fox Indians in 1804 and continued with a treaty with the Osage tribes in 1808.

The 1804 treaty set aside lands north of the Missouri River for the Sacs and Foxes. But in the 1808 treaty, the Osages gave up land south of the Missouri River as far as the Arkansas and as far west as Fort Osage, where the present town of Sibley now stands, east of Kansas City, and all of their holdings north of the Missouri River.

Through a series of contradictory treaties and proclamations, it was later held the 1808 Osage treaty somehow invalidated the 1804 Sac and Fox agreement, although the American officials repeatedly assured the Sacs and Foxes their treaty was still good. Not until 1824 did the Sacs and Foxes formally cede their lands to the United States. By then their land had been taken from them and had been settled for years.

However, from those treaties came the first written descriptions of the area that would be Missouri. It would take surveyors to bring order to those written descriptions. Except for changes made through lawsuits and slight adjustments in later boundary checks, the lines drawn by those surveys in the next fifty years shaped our state and still determine what is my yard and what is yours.

(continued on page 20)

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Fiftieth Anniversary Convention (continued)

The most important of all those lines did not end up as one of our regular state boundary lines, however.

If you extend the Warren and St. Charles County line north and south, you will have the Fifth Principal Meridian, the fifth of a series of lines established by surveyors as the basis for future surveys. The first of these meridians is the western boundary of Ohio. New survey lines were drawn as the frontier moved west, and by 1815 it was Missouri's turn. Not until that line was drawn could formal surveys be made of properties in Missouri. Not until the surveys were made could Spanish land concessions be confirmed. Not until the meridian was established could veterans of the War of 1812 get their free land in Missouri and Arkansas as rewards for their service. Nor could there be an orderly system of public land ownership, homesteading, or even establishment of townships.

In the fall of 1815, surveyors Prospect Robbins and Joseph C. Brown began their work. Robbins laid out the meridian while Brown surveyed the first east-west base line. Robbins started at the mouth of the Arkansas River and finished his work more than 312 miles away on the south bank of the Missouri. Taylor Berry later completed the survey north from the river through Pike County. The meridian technically continues north through Illinois and Wisconsin, the standard survey line for all lands west of the Mississippi.

The next year Brown, having finished his base-line work, was set to Fort Osage to survey the Osage line to the Arkansas River. At the same time another surveyor, John C. Sullivan, was to survey north.

They were to describe in their journals what they did to mark each mile and to describe for the General Land Office the kind of territory they passed through. Their handwritten notes survive today in shelf after shelf of books in a climate-controlled vault in Rolla.

Brown began his survey at a red oak tree growing on the Missouri River bank, then went through the fort and out its south gate. He and his party had little trouble until they neared the end of the trip when they ran into a "thorn & brier swamp of the worst sort." They sent three days trying to make their way through it. Finally a frustrated Brown wrote, "Finding it almost impossible to get through the cane at all, at any rate with accuracy, having proceeded a little further than the 252nd mile post & seeing it still thick, I thought it preferable to run in to the river & Meander it to the pont at which the line should strike..."

But their troubles were small compared to those Brown and another crew would face seven years later in laying out Missouri's western and southern boundaries.

In 1818-between Brown's first survey and his second one--another man who was not a surveyor at all managed to change the boundary of the state. His name was John Hardemann Walker.

For many year the southern district of Missouri stretched into what is now Arkansas and was controlled by officials at New Madrid. One of the residents of that area was John Hardemann Walker who developed large herds of stock at his plantation he called "Little Prairie," near Caruthersville. State Senator George W. Carleton recalled in 1889 that Walker's close ties to the New Madrid district prompted him to go to St. Louis in 1818 and protest plans to run Missouri's southern boundary line along a parallel from the 1808 Osage treaty line on the west, east to the Mississippi. If that plan were followed, he would be left about 25 miles outside of the organized territory. Carlton wrote, "Walker was a man of influence. His worldly means, as well as his indomitable pluck, gave him influence. He interviewed the...persons selected to define the boundary line of the State, and so eloquently did he plead his cause that the commissioners agreed to take Col. Walker into the state of Missouri."

Carleton claimed his information had been verified by "old pioneers of Southeast Missouri, who years ago passed off the stage of human action, and now sleep beneath the soil of Pemiscot."

John Hardemann Walker died in 1859, a Missourian by the strength of his will. His legacy is the Missouri bootheel.

The state constitution, drafted in 1820 and approved by Congress before Missouri became a state in 1821, contained a geographical description of the boundaries. However, the document said the western line would not be the one set by the 1808 treaty but would instead be a line drawn due south from the mouth of the Kansas River to the 36-degree-30 minute parallel, the infamous Missouri Compromise line.

That provision established a new boundary that was about 24 miles west of the line that Joseph Brown and his crew had struggled to survey in 1816. It's a good thing that change was made by the constitution because without it we would have our largest city-Kansas City. But it also established Missouri's western border within the territory that had been set aside for the Osage Indians.

To some of us, though, the greatest benefit is that there are 24 fewer miles of Kansas to drive across to get to Colorado.

Brown was hired to survey the new border, too, in 1823. He was hired to draw the western border and, for a second time, the southern border. Brown and his eight helpers started in the late summer. Some 62 miles out from Fort Osage, just after they had spent an arduous day fording the Osage River, Brown discovered his instruments had been giving erroneous readings. He had to re-survey 35 miles of his line.

In the early going he was in high spirits and wrote of planting the 50-mile marker shortly after crossing "the brow of the hill that overlooks the most beautiful prospect I ever saw...beautiful beyond description."

(continued on page 21)

Fiftieth Anniversary Convention (continued)

But Brown was nervous because he was surveying 24 miles inside Osage Indian territory and he worried about running into them. And he did. But he wrote in his journal that through an interpreter, "I explained to them the object of running a line through their country, they made no opposition but appeared satisfied & treated me with much respect." The son of an Osage chief accompanied the party for several miles.

(Let me depart from this story to make a brief point. I wonder, sometimes, if surveyors ever consider the value of their observations that are written into journals and other documents. Quite often those journals are not just records of the miles and the lines created. They often are historical snapshots of an area..and ERA. I mentioned Joseph Brown's comments about the beauty of the prairie 185 years ago, or so, a vista that probably long ago disappeared as civilization moved in. But his journals give us glimpses of frontier Missouri when it was still a wild land. He saw things that disappeared long before we came onto the scene and his field notes sometimes hint at what we have lost.

Here's another example:

In 1750, a traveler in Missouri wrote of flocks of birds that sometimes were so thick they blotted out the sun. But he also noted that the game was becoming scarce along the eastern border of Missouri, the first areas settled.

Now we move ahead to Joseph Brown's notes, less than three-quarters of a century later. It is a single line that he wrote after his party reached the White River. He recalled in 1823 what he had seen in his 1816 survey. He wrote in his 1823 journal. "Since seven years ago when I ran the Osage Indian Boundary line, THERE IS A VERY OBVIOUS DIMINUTION OF GAME."

This was just two years after we had become a state. Jefferson City was three years away from becoming the permanent seat of government. And now, game was disappearing on the WESTERN border.

Observations like that in the field notes are illuminating many years later as we learn how the state developed---and, sometimes, the price development paid.)

Well back to our story---

After 177 miles of surveying, complicated by illness among the crew, they reached the 36-30 parallel and turned east. But before long, Brown realized the work would be grueling. Ultimately he found it to be exhausting. He recorded in the journal, "Through such a country it is impossible to measure correctly." The rugged mountains forced him to shorten his surveyor's chain to make horizontal measurements.

The health of the party deteriorated. Indians stole some of their horses and the remaining animals suffered from lack of grass for 100 miles. The Indians had burned off the underbrush to flush out game.

On Thursday, November 27, 1823, Brown wrote in his field book, "Finding the horses not able to proceed I determined to

pack such things as are indispenseable [sic] on our backs & to proceed on with the line retaining so many hands only as are necessary & the others with the horses having rested a few days will proceed to St. Louis."

He was forced to leave many of his instruments behind, including a theodolite so big it had been carried in a wagon. The rest of the line was surveyed with a compass.

Less than 25 miles farther on, Brown and his party entered Cyprus swamps that sapped their strength and their will to continue.

From the field note book, December 8: "Swamp wading all the way of the mile nearly. Water to the knees."

When they reached the St. Francis River, Brown decided to give up, writing, "We were exhausted by he weight of our packs & want of food." He decided to abandon the survey of the southern line of the Bootheel. He noted, "I had reason to suppose (it) was through deeper swamps than those we had passed, and I considered that our safety was concerned in getting out as soon as possible...I imagine that it is not material whether the line that remains to be run shortly, for the country through which it passes will perhaps never be inhabited."

The job of surveying that last 40 miles from the St. Francis to the Mississippi was left to another surveyor, Angus Langham, the next year. It would be another nine decades before the Little River Drainage District as formed to drain those horrible swamps and turn southeast Missouri into productive farmland. But Joseph Brown's field notes have left us a vivid reminder of why that area is still called "swamp east" by some people.

Despite Brown's struggle, his notes and marks were never accepted by Congress as being a true account of the southern border. The western line, for some reason was approved. But it would be another two decades before another survey of the southern border. That work in 1843 and 1845 finally gave us a permanent southern border. The re-survey found the real line at 36-30 was generally south of Brown's, but never by more than one-half mile. Nonetheless, we got an extra half mile from Arkansas.

The 36-30 line that Joseph Brown and the others surveyed isn't really at 36-30. It was, after all, a line surveyed not by machines or satellites but by men who often worked under the handicaps of rough terrain, bad weather, and disease. Where the line does wobble from true 36-30, courts have held through the years that Missouri's boundary will follow the old surveyor's lines. Wobble or not, at least we never faced the possibility of a war about the lines of Joseph Brown.

As Brown started his original survey in 1816, a man named John C. Sullivan was starting a survey to the north. His line
(continued on page 22)

Fiftieth Anniversary Convention (continued)

would lead to a near-war with Iowa and a lawsuit that would not be resolved for more than 35 years from the day he took his first reading. The mystery of the "Sullivan Line" lasted for more than three decades and, in fact, is still something of a puzzle.

John C. Sullivan's handwriting is still boldly visible in his surveyor's book as he described the beginning of his survey of Missouri's northwest boundary. "Beginning at a Cottonwood opposite the mouth of the Kansas River marked with three notches on the n&S sides from which a cottonwood 24 inches dmr bears S48E 58 Lks & a Sycamore 8 inches dmr bears N59E 38 Lks "Thence..."

The cottonwood tree is long gone. The river mouth has been altered in the decades since. Little did he know that his lines would be altered by settlers who would push Indians farther west, the war with a neighboring state, a court case lasting decades and an ongoing dispute with still another state that lasted more almost to the end of the 20th century.

You might run into people---or you might be one of those people-who think Fort Madison, Keokuk, and Shenandoah, Iowa should be in Missouri. The story of why they are not contains many chapters.

As I recounted earlier, the Osage Indians ceded all their lands north of the Missouri River to the United States. But not until 1813 did Governor William Clark (of Lewis and Clark fame a decade earlier) decided the lands ceded were bordered by a line running from the mouth of the Kansas River north some 140 miles and then east to what he called the Atcata River, which runs into the Mississippi, then on a line due south to the mouth of the Gasconade and up the Missouri to the starting point. In making that ruling, Clark also wiped out claims of the Sac and Fox Indians in the area despite treaties to the contrary.

But for some reason the instructions given to John C. Sullivan for his 1816 survey north from the mouth of the Kaw told him to go only 100 miles north before setting a boundary corner marking the northwest corner of Missouri. Sullivan then turned east after setting the corner near a black oak tree growing on what he described as "Broken 2nd rate prairie [sic]."

His instructions then said he was to survey a line east to the "rapids of the River Des Moines." It was this instruction which created decades of dispute that we might not have had if the original instructions had been followed. Of course, we might not have Iowa, either, but that's another discussion.

Some 151 miles after turning east, Sullivan wrote in his field book, "The Demoin River...runs S. E. clear water, gentle current and very shallow at present rockery Banks on the East shore..." The "rockery banks" apparently were the closest things he could find for "rapids." So in 1816, John Sullivan set a surveying post near an elm that was 24 inches in diameter and a Lynn tree about the same size.

When the first petition for statehood was filed by Missouri

in 1817, citizens asked that the northern boundary run WEST FROM the Des Moines River. That would be substantially south of the line Clark proposed and somewhat south of the Sullivan line.

Another petition submitted in 1818 suggested the northern boundary closer to the one Clark formulated five years earlier.

Congress told Missouri to draft a constitution in 1820 as a preparation for statehood. The enabling act which described the boundaries would not in future years help resolve the problems. The western boundary would extend north from the mouth of the Kansas to, as it was put, "the intersection of the parallel of latitude which passes through the rapids of the River Des Moines, making the said line to correspond with the Indian boundary line; thence east from the point of intersection...along the side parallel of latitude to the middle of the channel of the main fork of the said River Des Moines" and then down the river to the Mississippi, which would be the state's eastern boundary.

That was quite a bit different from Clark's eastern boundary. But the important thing to note is that this document referred to those "rapids" again. If the rapids had been as obvious in the river as they were in the documents, there never would have been a problem.

All was quiet on the northern front until Iowa was carved out of southern Wisconsin---which, incidentally, was trimmed away from Minnesota. Not until it became necessary to figure a southern boundary for Iowa did the trouble really begin.

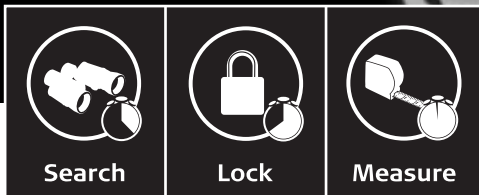
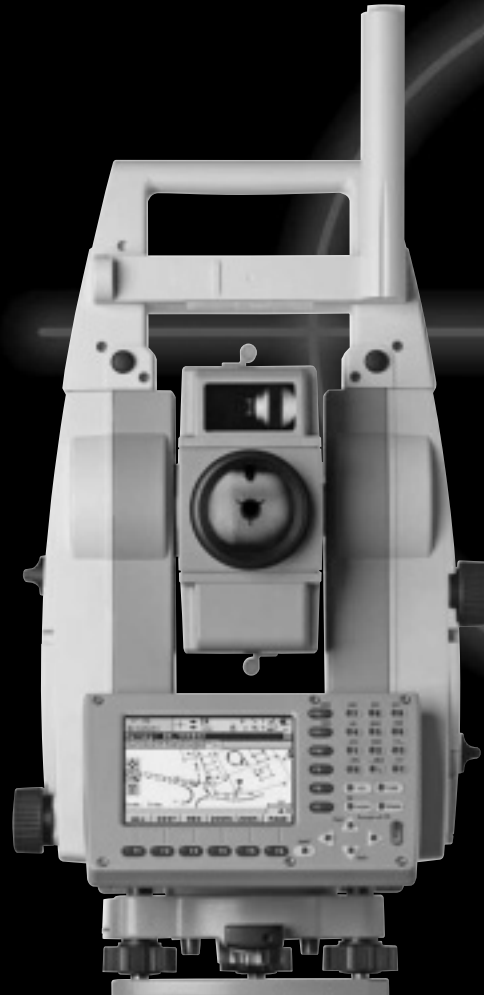
When Wisconsin was established, its southern boundary was Missouri's northern boundary, extended west to the Missouri River. That provision established a triangular area below the Wisconsin southern border and the western Missouri boundary line surveyed by Sullivan in 1816. Although that triangular area was reserved for Indians, white settlers had moved in and friction had developed.

Congress approved an act in June, 1836 allowing Missouri to take over the Indian lands as soon as the Indians moved out. The Indians sold the land in a transaction known as the Platte Purchase. The president proclaimed all Indian titles have been extinguished as of March, 1837. That's the area that is now Atchison, Andrew, Buchanan, Holt, Nodaway, and Platte Counties.

In December, 1836 the Missouri legislature authorized the governor to name three commissioners to survey the new line from the corner post set in 1816 as Missouri's original northwest corner by Sullivan, then west to the Missouri River. The work would be done in conjunction with commissioners named by none other than Joseph C. Brown, the same Joseph Brown whose work had established the boundary lines SOUTH of the Missouri River twenty years earlier.

(continued on page 24)

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Fiftieth Anniversary Convention (continued)

The commissioners themselves went in search of those "rapids," and decided they had gone some fifty miles upstream from the mouth of the Des Moines River. It was from that point that Brown surveyed west to the Missouri River during July, August and September, 1837. The Missouri legislature approved the report of the commissioners in February, 1839, establishing a northern boundary far north from the one which eventually evolved.

By now the territory of Iowa had been formed and Congress had authorized the President to have the line between Iowa and Missouri surveyed. Again, Missouri and Iowa were to name commissioners to help. The President named Major Albert Lea of Maryland (for whom a town in Minnesota is now named). Iowa appointed Dr. James Davis. Missouri, having just gone through the process, did not name a commissioner.

Lea quickly wrote to the man who had been Missouri's delegate in Congress in 1817, John Scott, asking what the original northern boundary was intended to be. Scott wrote back that those in charge of drawing the 1816 line agreed "there were rapids in the Des Moines River itself, some sixty miles from the mouth; and they all concurred it would be useless to embrace that part of the country that would be

between the River Des Moines & the Mississippi, as it was but a gore, a low willow bar between the Mississippi & the Des Moines River, as they said, running nearly parallel for some sixty miles...."

At least that explains that little notch which is missing from Missouri's northeast corner. Missourians didn't want what they felt at the time was worthless land. In fact, when the Sac and Fox Indians ceded all claims they had north of the Missouri River in 1824, the treaty reserved that area between the Des Moines and Mississippi Rivers for use of half-breeds belonging to those tribes.

Scott tried to further clarify, writing, "I am entirely sure that the rapids in the bill....were the rapids in the Des Moines River itself, and not the rapids in the Mississippi River, called, from the proximity to the mouth of the Des Moines River, the 'Des Moines rapid.'"

That might have just muddied the water, so to speak. When Lea made his final report, he came up with FOUR different lines. There was the old Indian boundary line surveyed by Sullivan in 1816; a true parallel of latitude established by Sullivan starting from the original northwest corner, which deviated slightly to the south from the old Indian line; the line surveyed by Brown for Missouri in 1837; and a line which was based on another set of rapids altogether-the so-called Des Moines rapids of the Mississippi River. That line was the southernmost of the four.

James Davis, the commissioner for Iowa, decided the old Indian line of 1816 was the true one. The result was a gap of contested territory about nine miles wide at the Des Moines River broadening to eleven miles wide at the Missouri River on the west end.

Missouri's governor, Lilburn Boggs decided the north border of Missouri decided the old Indian line would be Missouri's northern border and on August 23, 1839 issued a proclamation saying only Missouri law could be enforced in that area. He ordered Missouri's militia to be ready to aid civil officers in any dispute there.

About the same time, Iowa's Territorial Governor, Robert Lucas, issued an order forbidding anyone but Iowa officials from enforcing statutes north of the Indian line.

Neither side would take this situation lying down.

In August, 1839, Sheriff Uriah S. Gregory (his friends called him "Sandy") from Clark County, Missouri, went to collect taxes from a crowd building a house in the only town in the disputed area, Farmington. Things got ugly fast and Gregory realized the wisdom of retiring to the safety of land definitely known to be Missouri. At the end of November, however, he went back and was quickly arrested by an Iowa sheriff, jailed in Muscatine, and released.

Things reached the flashpoint again when a Missourian went into the disputed territory and cut down some bee trees.

(continued on page 26)

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Fiftieth Anniversary Convention (continued)

A lawsuit was filed against him in an Iowa court which ruled the man owed the state \$1.50. The man by now was back in Missouri but rumor quickly spread that Iowa authorities and hostile citizens were waiting for him to set foot in what they regarded as their territory again.

Governor Boggs---remember, this is the Governor who triggered the Mormon War and threatened to exterminate them unless they left the state---wasn't going to take any guff from Iowans. He called out the militia. Governor Lucas of Iowa suggested Congress be asked to establish the true line. Boggs responded that he would not let Congress touch the boundaries of the sovereign state of Missouri.

The incident prompted political satirist John L. Campbell to publish a poem in the Palmyra Whig and General Advertiser that poked fun at how much trouble could be caused by one man cutting down three trees filled with honey.

Now if the Governors want to fight,
Just let them meet in person,
And when noble Boggs and old Lucas flogs,
Twill teach the scamp a lesson.
Then let the victor cut the trees,
And have three bits of money,
And wear a crown from town to town,
Anointed with pure honey.
And then no widows will be made,
No orphans unprotected;
Old Lucas will be nicely flogged,
And our line ejected.
Our honey trade will then be laid,
Upon a solid basis;
And Governor Boggs,
Where'er he jogs,
Will meet with smiling faces.

The title of the poem gave the incident the name by which it is known today: "The Honey War." The poem, incidentally, could be sung to the tune of "Yankee Doodle."

You may thank me later for not trying to sing it.

The County Court of Clark County ordered the militia to help Sheriff Gregory enforce the laws. Boggs ordered 2,200 men to service on the border. A regiment from Lewis County was joined by a battalion from Clark County and they pitched camp near Waterloo, Iowa where they were joined by another 600 men from Knox County.

Governor Lucas of Iowa called out 1,200 Iowa militiamen who gathered at Farmington and pledged not to "be aggressed on." Things stayed tense for several days before some of the militia leaders got together at Waterloo and declared a truce. The two sides decided to refer the issue to Congress.

But peace didn't suit some of the Missourians. They came back to Monticello, in Lewis County, and passed resolutions condemning everybody who helped bring about the peace. Troops from Marion County passed some contemptuous

resolutions against the two governors for causing unnecessary trouble. The entire incident cost Missouri about \$20,000 in pay for soldiers and the costs of their equipment. The financially-strapped state had to sell bonds to pay for the Honey War.

Governor Thomas Reynolds, who succeeded Boggs, tried to force the boundary line issue into the courts but failed. In the next four-and-a-half years, the President of the United States made four recommendations to Congress that it take action; the Missouri legislature passed two laws to have the line surveyed by joint commissions; and Missouri and Iowa sent several memorials to Congress asking the situation be resolved. What did Congress do?

It called for a new survey.

Missouri Governor John Edwards thought that was silly and blocked implementation of the survey in 1845. He feared a new survey would cost Missouri the land it claimed north of the old Indian line.

The dispute went on for several more years. Adair County sheriff Preston Mulnix was indicted in Iowa for usurpation in office, but the Governor of Iowa pardoned him before he came to trial. Schuyler County Sheriff Jonathan Riggs, a firm and resolute man according to an 1847 state senate report, was indicted in Davis County, Iowa and held in the Van Buren County, Iowa jail for 21 days. The Davis County, Iowa sheriff was indicted in Schuyler County, Missouri at the same time. Both cases were continued with no further prosecution.

Missouri in 1845 and Iowa in 1846 agreed to put the matter before the United States Supreme Court. Missouri argued in favor of Brown's survey, the northernmost line. Iowa changed its strategy and instead of arguing for the old Indian line, argued instead that the "rapids of the river Des Moines" were not rapids at all but only riffles. Iowa argued that the rapids intended by the 1820 constitution were really the "Des Moines rapids" in the Mississippi River, three miles north of the Des Moines River's mouth. Under those arguments the disputed territory became NOT nine miles wide but seventeen.

The court reached a compromise decision and ruled that none of those "rapids" claimed either by surveyors, state officials, or federal enabling acts existed in any easily definable way. The court ruled the old Indian line, the "Sullivan line" as run and marked in 1816 was the true boundary between Iowa and Missouri. The opinion was based on long-accepted understandings embodied in sixteen years of Missouri legislative acts, Congressional acceptance of the line in the original creation of Wisconsin and Iowa territories, and in no less than FIFTEEN treaties made with Indians since Missouri had become a state.

The next step? Darned if it wasn't another survey.

The court named Joseph Brown of Missouri and Henry

(continued on page 28)

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Fiftieth Anniversary Convention (continued)

Hendershot of Iowa as commissioners to supervise a survey that would finally mark the line listed in the decree.

A cast iron pillar was to be placed at the northwest corner of Missouri on the bank of the Missouri River to denote the western boundaries of Missouri and Iowa.

Brown died before the job could be started and was replaced by William Minor. The commissioners then named Robert Walker of Missouri and William Dewey of Iowa to finally lay out the line. They were to locate the 1816 line and mark it with heavy cast iron pillars every ten miles. They started in April, 1850 with three 1500-pound pillars and sixteen others weighing 300 to 400 pounds each. They had trouble finding the wooden posts, marked trees, or mounds of sod Sullivan had used 34 years earlier. But on January 3, 1851, the United States Supreme Court, having studied the final report of Dewey and Walker, declared the line fixed and marked.

But hold it. We are not done with the line that makes them Iowa and makes us Missouri.

By 1896 some markers had been destroyed. So the United States Supreme Court stepped in again and ordered a re-survey of about twenty miles of the line. It was done and still more durable monuments were installed. It is recorded by those who did this re-survey that they found more evidence of the 1816 line than they did of the 1850 survey.

The state of Missouri, almost thirty years old, finally had a definite northern boundary.

Except---

Missouri sued the state of Iowa in 1937 because of uncertainty about the boundary between Clark County, Missouri and Lee County, Iowa.

The Des Moines River was the focal point, again. In the end, Iowa gave up all land south and west of the river and Missouri gave up all land north and east of the river. Congress approved the final piece of the Missouri-Iowa border in 1939, a full century after the Honey War.

But that does not end the story of Missouri's borders.

Missouri and Kansas had a long-standing disagreement about the French Bottoms, near St. Joseph, a piece of land left on the Kansas side of the Missouri River when the river changed its channel in the flood of 1951. The Kansas legislature finally agreed it belonged to Missouri.

It took our legislature a few sessions to agree.

In 1867, a flood changed the Missouri River and left almost 5100 acres that had been on the Nebraska side on the Missouri side. In 1904 the United States Supreme Court ruled that McKissick's Island near the northwest corner of Missouri belonged to Nebraska based on the original centerline of the river channel.

Then came the Corps of Engineers and its program to channelize the river. Before long people who owned the McKissick's Island land complained they were being taxed by both states and some Missourians feared their land would

be sold on the courthouse steps in Nebraska.

Our dispute with Nebraska was finally resolved in by Congress in 1999.

But a more definitive determination of our boundaries was made in 1983 when the National Geodetic Survey adjusted ALL of the meridians on the basis of Clark's Spheroid, a scientist's understanding of the shape of the earth in 1866. All of our latitude and longitude lines had been based on that spheroid which was adopted as the North American datum in 1927 as the best-known shape of the North American continent. All mapping in the United States was based on that 1927 table which in turn was based on a theory from the 1860s.

By the 1980s satellites had given us a much better understanding of our world and its shape based on satellite observations, distance measuring with electronic equipment, gravity studies and so forth. From that came an even more precise definition of 36-30, Missouri's southern boundary and other boundaries described in specific geodetic terms, as opposed to old lines measured by trees, mounds of earth, and mysterious rapids.

Little did that French minister who helped seal the deal on the Louisiana Purchase know how much trouble he would have caused in the two centuries after he told Robert Livingstone he supposed the United States would just have to "make the most of it" in determining the borders of the new territory.

All of us live in one way or another within the borders those tough and dedicated early surveyors created-with help from time to time by a few judges.

But lines only describe an area. They do not define the people inside those lines. It is what people do within those lines that truly define a state. Lines describe. People define.

The only problem with that is that we Missourians absolutely refuse to define ourselves. We are a contrary, contradictory people, a place where French citizens of a Spanish city fought an overlooked but critical battle in the American Revolution in which no Americans fought; a state where the city that claims to be the Gateway to the West is more appropriately the Gateway from the East, while the real Gateway to the West is 250 miles away. It is a state as Midwest as the Iowa and Illinois; as western as Oklahoma and Kansas; as southern as Kentucky, Tennessee, and Arkansas. It is a state of great resources, but a state that did its best to destroy them. It's a state so badly divided during the Civil War that the elected governor took some members of the legislature with him and set up a government-in-exile in Arkansas, then in Texas while an un-elected government seized control in Missouri. It is a state where the state flower is a tree and the state tree is a bush.

Your predecessors drew the lines that describe this state.

(continued on page 29)

Fiftieth Anniversary Convention (continued)

It is up to us to define it.

But if, like our ancestors, we are unable to reach a consistent, uniform definition of the word "Missourian," or create a predictable, immovable character---well, that won't be so bad, will it?

Who wants to be predictable? Where's the fun in that?

We enjoy our contrary, contradictory natures, we Missourians. It should not be surprising that a state that has had so much describing its boundaries should be so resistant to defining the nature of what is within those lines.

Missourians are too complicated, to diverse, to categorize. There is no typical Missourian. There is no typical Missouri town.

St. Louis newspaperman Irving Dilliard, writing in a state guide published by the WPA in the Depression (Missouri, A Guide to the Show-Me State), said:

"Our definition of Missouri, however detailed, cannot be complete. Missouri will not be catalogued. It cannot be written down. Missouri is many intangible things-spring in Florissant valley, apple blossom time at Marionville, a flaming July sunrise on the deep blue of Lake Taneycomo, a leisurely float down the Current River, and black-bass

suppers around open fires on willow-screened sandbars. It is tale-swapping in a woodland camp as baying foxhounds follow the scent through the brush of the October hills. It is firelight and unhurried talk of friends in the room, wind calling down the chimney and wood smoke on the night air. It is living so that life tastes good each day. It is-Missouri."

Whenever I read those words, I do not hear them as writings in a book published about 1940. I hear them as a challenge to the generations that have come since then and those that are yet to come---to make sure that, in Missouri, "life tastes good each day." It is a call to responsibility for all of us.

And how do we meet that responsibility to make sure life tastes good each day in Missouri. One way is to look back to the advice from that French minister who helped engineer the Louisiana Purchase: "Make the most of it."

This has been a pretty good day, I think. But tomorrow is only hours away. Let us make the most of it.

Thank you for having me with you tonight.

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Seiler Instrument Supports Continuing Education for Land Surveyors

Seiler Instrument Survey Division recently presented a scholarship for \$500.00 to the Missouri Society of Professional Surveyors (MSPS) during their 50th Anniversary Meeting held at Tan-Tar-A Resort in Lake of Ozarks, Missouri.

According to Mr. Don Martin, President of MSPS, "I wish to express to you my thanks and appreciation for your recent participation at the Oct 4-6 meeting of the Missouri Society of Professional Surveyors. It was a great event that was made better by your presence. Missouri surveyors have long benefited from the support and expertise of our commercial vendors. Your role in our industry is vital and your sponsorship is welcome."

Tom Seiler, Vice President of Seiler Instrument Company also stated, "We have been blessed with a great relationship with so many in the surveying profession and we are grateful for what we have achieved and proud to have helped these upcoming professionals along the way."

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GIS the Survey Way

by Matt Sorenson and Russ Wetzel

When a Midwest surveying and engineering firm expanded into GIS, it applied land survey methodology. Its' experiences with a county and city prove it pays big dividends.

Land surveying has been around since the beginning of time. Geographic information systems (GIS), on the other hand, is a relatively new technology. The digital data contained within a GIS is quickly becoming a primary mapping and analysis instrument for wide ranging applications in business, government, education, and many other fields. Data contained within GIS mapping systems see myriad uses such as land assessment, land survey research, economic development, land planning and development.

Ironically, as GIS data is ideally driven by its "geographic" component, it is surprising how little emphasis early GIS development placed on data accuracy, a cornerstone of land surveying. Early use of GIS did not require a high standard for data accuracy. As geographic information systems develop, however, this trend is changing, mainly due to a large increase of use among local governments and advances in hardware and software capabilities.

Today, many users of GIS technology require a higher degree of accuracy in their data. Improved GPS accuracy capabilities, greater clarity in digital aerial photography, and higher data quality expectations are all driving this. Many GIS users are also finding their original data less than satisfactory, and many early GIS programs are beginning to integrate land surveying protocols and methodologies into their mapping system to improve the overall accuracy of GIS data.

One company in the U.S. heartland has striven to integrate accurate land surveying protocols within GIS project development. Midland GIS Solutions, in Maryville, Missouri, formed through the restructuring of Midland Engineering, Inc., a professional land surveying and mapping company with a long history in the Midwest. Today, Midland GIS Solutions, in conjunction with its parent company Midland Surveying, Inc., provides a wide range of surveying and mapping services throughout the region.

Both founders of Midland GIS Solutions, John Teale and Troy Hayes, are professional land surveyors, and three additional licensed land surveyors on staff contribute to every GIS project. The company routinely uses the expertise of land surveyors throughout the Midwest and works with local land surveyors on many key aspects of GIS project development. Midland also goes to great lengths to apply a host of available land survey research materials in support of each project. The end result: develop the most accurate GIS realistically possible from available survey research.

Phelps County Benefits in Multiple Areas

A case in point is Phelps County, Missouri. County officials approached us to develop a countywide GIS that would



Curtis McAdams, PLS with Midland Surveying, Inc., obtains a survey-grade section corner location for a county GIS project.

benefit numerous departments and contain a high degree of accuracy. Departments from the assessor's office, recorder's office, clerk's office, commissioner's office, roads and bridges, law enforcement, and the county health department were all encouraged to weigh in on what they required from the developed data. The GIS was developed toward a foundation that supported all the requested applications. The ultimate goal was to provide useful data to each department within a accurate GIS base foundation that would support growth for multiple uses.

Midland GIS Solutions assimilated data developed and provided by local land surveying and engineering firm Elgin Surveying and Engineering in Rolla, Missouri. Coming into the project, Phelps County had the benefit of having numerous township and section corners already established and recorded with specific state plane coordinate values.

Additional section corner coordinates were obtained through subsequent direct GPS data collection. Registered section corner documents were obtained from the Missouri Department of Natural Resources Division of Land Survey and referenced to determine the remaining section corners. Coordinate geometry (COGO) techniques were applied within the GIS to create the quarter section, section, township, and range data layers in Phelps County's GIS program.

Other section corner locations, specifically those located within highly forested areas of the county, were determined

(continued on page 32)

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GIS the Survey Way (continued)

through application of geographic measurement management (GMM) software with the direction and support of the U.S. Forest Service. This included nearly 11 townships in the forested areas where little reference existed for the section corner locations.

Finally, remaining section corners were established in the GIS using land surveying techniques referencing the original Government Land Office (GLO) documents. All the section corner coordinates, most obtained from well-defined digital coordinates, became the foundation for the GIS. Other sources include recorded subdivision plats, recorded surveys, and highway plans from the Missouri Department of Transportation (MoDOT). Reference data was also obtained from the City of Rolla's GIS, including existing quarter section line data developed by Elgin Surveying and Engineering. All this effort led to the establishment of a highly accurate GIS. Subsequent data layers developed in the county's GIS such as parcel boundaries, subdivision lots, and rights-of-way were created in similar fashion, making use of all available research material.

City of Belton Manages its Infrastructure

Another example where land surveying research and methodology served as the primary factors in GIS development was the City of Belton, Missouri, a rapidly growing suburb on the south edge of Kansas City. In 2003, with a population nearing 24,000 and commercial and private development steadily increasing, city leaders began actively developing a comprehensive infrastructure management system. The resulting multi-year project, involving several companies and numerous state-of-the-art technologies, represents an aggressive effort to bring Belton to the cutting edge in municipal infrastructure management.

The City of Belton turned to GIS technology to manage its growing infrastructure. The initial step was an accurate assessment of its current transportation, water and wastewater infrastructure. The city hired Midland GIS Solutions to oversee the initial phases of the multitiered project. The first phase of the city's GIS consisted of developing an accurate cadastral foundation. We assembled a multi-disciplinary team of professional land surveyors, an aerial photography firm, and civil engineers to provide the required support services. By the end of 2004, Belton was well on the way to realizing its new state-of-the-art and highly accurate GIS mapping system.

A primary step in the early stages of the project involved



Midland GIS Solutions field technicians use V-Depth equipment to obtain accurate invert depths for a sanitary sewer project. Using this eliminates dipping each manhole with a conventional level rod.

building the GIS base map. We contracted local land surveying firm Roger L. Brenizer & Associates to provide survey-grade coordinate positions for each section and quarter-section corner within the project area. This highly accurate coordinate data was obtained through survey grade GPS and included coded attribute data describing each corner (e.g. 5/8-inch iron bar, DNR monument, etc.).

Once the section corner locations were acquired, we began work on the city's GIS base map. Extensive research supported development of the base map layers, including registered section corner documents, highway plans, and recorded subdivision plats. Additional data layers included map index grids, accurate road and railroad centerlines, detailed road rights-of-way, subdivisions, lots, blocks, water boundaries and land ownership boundaries within the city. A comprehensive city

limit boundary was also developed by referencing recorded city annexation ordinances. All this data was prepared in an ESRI ArcGIS personal geodatabase format.

The next major phase of Belton's comprehensive infrastructure plan involved the assessment and development of the city's wastewater infrastructure. We were again employed to provide precise survey-grade GIS field survey data for the wastewater utility features. GPS survey crews use a survey-grade (subcentimeter accurate) Trimble 5800 GPS receiver and TSCe data collector as well as a NetRS GPS CORS permanent base station provided by Seiler Instrument. This allowed the

Dustin Shepherd acquires survey grade coordinates for a sanitary sewer project. Surveyors play a key role in developing GIS.



(continued on page 34)

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GIS the Survey Way (continued)

GPS survey crew to obtain highly accurate horizontal (x,y) coordinates for each feature and a vertical (z) coordinate for rim elevations. Captured features included manholes, lift stations and cleanouts, totaling about 2,100.

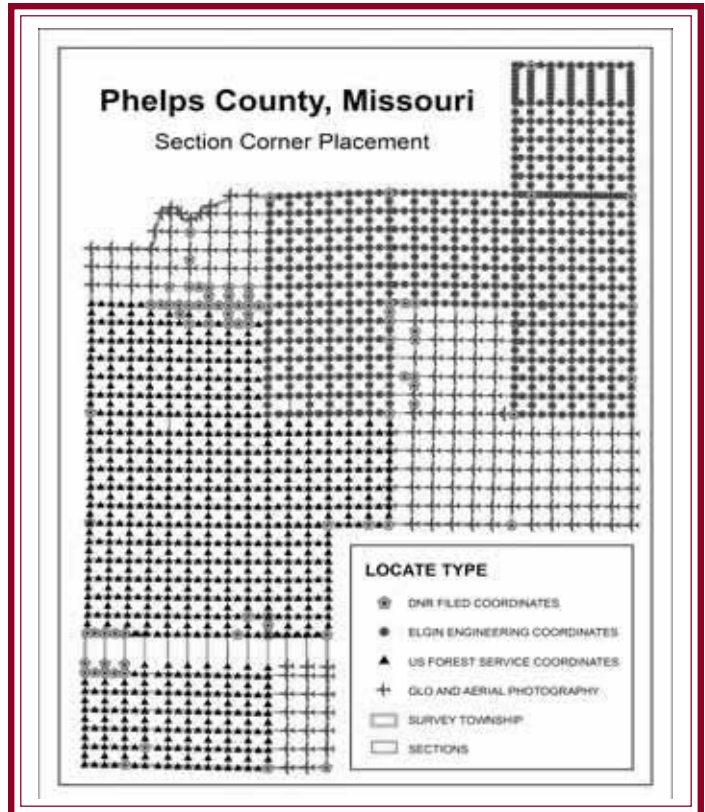
The resulting GPS-located features were printed onto working field maps used to reference manhole locations. Each manhole was “popped”, and invert depths were obtained. This task was accomplished using specialized V-depth measurement equipment. The V-depth equipment was not only designed for high accuracy, but it also greatly reduced the need to individually “dip” each manhole with the conventional level rod. Attribute data such as pipe material and diameter was also gathered and cataloged into the GIS database.

As the city’s GIS program continues to develop, city personnel are realizing the increase in efficiencies with day-to-day utility infrastructure management. With a highly accurate, multi-layer GIS with extensive and detailed attribute data, the City of Belton can conduct sophisticated analyses and implement many beneficial applications. The city is truly on the cutting edge with its GIS technology.

As you can see from both GIS project examples, taking the land survey accuracy approach pays off in the long run. The trend should continue as more surveying firms take on GIS. 🇺🇸

Matt Sorenson is vice president of Midland GIS Solutions in Maryville, Missouri and has been with the firm since June 2000, having worked for Midland Engineering for six years prior. He has a B.S. degree in geography from Northwest Missouri State University.

Russ Weitzel is a GIS analyst for Midland GIS Solutions. He has a B.S. in geography from NWMSU and is currently working on his M.S. degree in geography from the University of Nebraska-Omaha.



This map created from Phelps County’s GIS indicates the type and source of information used for section corner placement.

In Memoriam

Charles Albert White was born June 4, 1926 on a farm in Sebek, Minnesota. He was one of five brothers and three sisters. Al began his career with the General Land Office (now the BLM) in 1946. The job took him over most of the western United States. He was on a survey crew in Alaska when he entered the military during the Korean War. He served in Japan as an army instructor teaching surveying. When he returned from Japan he met Catherine O’Hara and they were married in 1954. They settled in Colorado Springs where Al went to work for a private contracting firm as a surveyor.

In 1958 Al moved the family to Portland, Oregon and returned to the BLM as a surveyor. He was considered to be the most distinguished authority on the history of 19th and 20th Century public lands surveying.

During his career he authored four books: “Public Lands Surveying: A Casebook”; “A History



of the Rectangular Survey System”; “Initial Points of the Rectangular Survey System”; and “A Casebook of the Oregon Donation Land Claims”. Once retired, he was still very active with associates nationwide seeking his expert advice about surveying.

Mr. White died July 12, 2007, from illness associated with congestive heart failure.

He was widowed in 1982. Survivors include sister Frances Higgs and brother George White of Spokane, Washington; sons Patrick White of Astoria, Oregon; Michael White of Durham, Oregon; daughters Ellen Kroessin of Tigard, Oregon; Margaret White of Portland, Oregon; Sharon Rhyman of Aloha, Oregon; five grandchildren and one great-grandchild.

Rosary prayer service was Monday, July 16 at Young’s Funeral Home, Tigard, Oregon.

The funeral service was Tuesday, July 17 at St. Anthony’s Catholic Church, Tigard, Oregon.



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MACS Celebrates 25th Anniversary with Memorial to P.K. Robbins

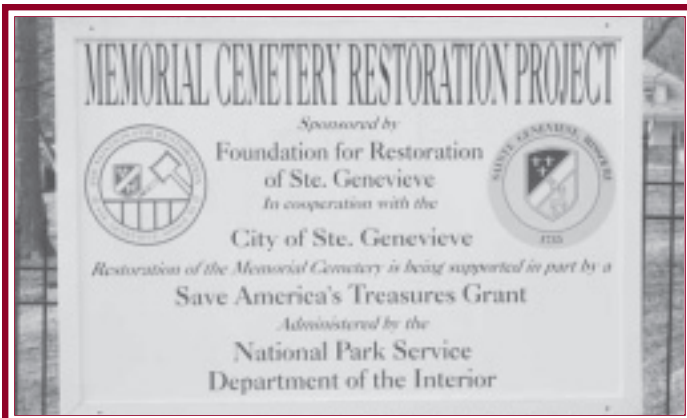
by Ronald Elston Kliethermes, PLS



The Southern Hotel in Historic Downtown Ste. Genevieve, Missouri, is but one of scores of preserved and restored homes and buildings from pre-Louisiana Purchase days.

Ste. Genevieve, MO.: The Missouri Association of County Surveyors, (MACS), founded in 1981, celebrated their 25th Anniversary with a luncheon and a commemoration ceremony here in November of 2006. The ceremonies dedicated a memorial to U.S. Deputy Surveyor, Prospect K. Robbins, who came to this area from Massachusetts in the early 1800's, and is believed to be laid to rest in the old historic Ste. Genevieve Cemetery, a few blocks from the historic downtown district. Robbins and his survey crew conducted the original survey of the first segment of the Fifth Principle Meridian.

It was late autumn in 1815 when Prospect K. Robbins led his crew in the completion of the measurement and marking



Ste. Genevieve's "Memorial Cemetery Restoration Project" was the site of the memorial presentations by MACS and others for P. K. Robbins, Deputy U.S. Surveyor.

of the first 375 miles of the Fifth Principle Meridian. No small accomplishment, given the relatively remote and sparsely inhabited territory at that time. This 'meridian' is the reference line extending north from the mouth of the Arkansas River, as directed by Congress, from which all land surveys in Missouri and five other states are based. The Missouri Association of County Surveyors feels that Mr. Robbins' efforts deserve respect and recognition.

The village of Ste. Genevieve, founded in 1735, is today a showcase of pre-Missouri Territory history, with its old cemetery seeing much progress with a major restoration over the past several years. That restoration is nearing completion with the installation of landscaping, pathways and attractive local limestone bench seating in key areas for visitors. The County Surveyors Association donated one of the limestone benches and a bronze plaque to memorialize U.S. Deputy Surveyor, Prospect K. Robbins.

Attending on this cool November day were numerous charter members of the Association, current members and guests, a variety of city officials and historic preservation enthusiasts, in addition to a sizeable group of interested staff



A hearty group of interested friends and dignitaries gathers for the presentations.

from the office of the Missouri State Land Surveyor, and the Missouri Division of Geology and Land Survey. After introductions and a short meeting to finalize the post-luncheon memorial festivities, all enjoyed a buffet luncheon and socializing at the Old Brick Restaurant, the first brick building erected west of the Mississippi River, located at the corner of Third and Market Street in the historic downtown district.

After the luncheon, all made their way a few blocks west to the old historic cemetery, where the new memorial to U.S. Deputy Surveyor Robbins has been erected in conjunction with the on-going cemetery restoration. It is not currently

(continued on page 38)



Holiday Eating Tips

1. Avoid carrot sticks. Anyone who puts carrots on a holiday buffet table knows nothing of the Christmas spirit. In fact, if you see carrots, leave immediately. Go next door, where they're serving rum balls.
2. Drink as much eggnog as you can. And quickly. Like fine single-malt scotch, it's rare. In fact, it's even rarer than single-malt scotch. You can't find it any other time of year but now. So drink up! Who cares that it has 10,000 calories in every sip? It's not as if you're going to turn into an eggnog-alcoholic or something. It's a treat. Enjoy it. Have one for me. Have two. It's later than you think. It's Christmas!
3. If something comes with gravy, use it. That's the whole point of gravy. Gravy does not stand alone. Pour it on. Make a volcano out of your mashed potatoes. Fill it with gravy. Eat the volcano. Repeat.
4. As for mashed potatoes, always ask if they're made with skim milk or whole milk. If it's skim, pass. Why bother? It's like buying a sports car with an automatic transmission.
5. Do not have a snack before going to a party in an effort to control your eating. The whole point of going to a Christmas party is to eat other people's food for free. Lots of it. Hello?
6. Under no circumstances should you exercise between now and New Year's. You can do that in January when you have nothing else to do. This is the time for long naps, which you'll need after circling the buffet table while carrying a 10-pound plate of food and that vat of eggnog.
7. If you come across something really good at a buffet table, like frosted Christmas cookies in the shape and size of Santa, position yourself near them and don't budge. Have as many as you can before becoming the center of attention. They're like a beautiful pair of shoes. If you leave them behind, you're never going to see them again.
8. Same for pies. Apple. Pumpkin. Mincemeat. Have a slice of each. Or if you don't like mincemeat, have two apples and one pumpkin. Always have three. When else do you get to have more than one dessert? Labor Day?
9. Did someone mention fruitcake? Granted, it's loaded with the mandatory celebratory calories, but avoid it at all cost. I mean, have some standards.
10. One final tip: If you don't feel terrible when you leave the party or get up from the table, you haven't been paying attention. Re-read tips; start over, but hurry, January is just around the corner.

Remember this motto to live by:

"Life should NOT be a journey to the grave with the intention of arriving safely in an attractive and well preserved body, but rather to skid in sideways, chocolate in one hand, martini in the other, body thoroughly used up, totally worn out and screaming "WOO HOO what a ride!" Have a great holiday season!"

Merry Christmas
from your friends at MSPS!

MACS Celebrates 25th Anniversary (continued)

known with any confidence where the remains of P.K. Robbins are buried, as the old cemetery records are somewhat incomplete. Prior to the start of the dedication and presentations, one member of the group who came to honor Robbins, a white-bearded old surveyor festooned in buckskins, made a valiant attempt to locate the bones of that long-dead U.S. Deputy Surveyor. Following where his divining rods would lead him, the 'dowser' trekked the area for a time, then confided to the group that he believed the bones of Robbins are not in the immediate area of this cemetery, but "Ömore near to Seventh Street or parts west from there-about's".



Distinguished PLS's, (or not so), and/or past presidents or charter members of MACS in attendance included, (front L-R); Dale Miller, Larry Elliot, Lloyd Todd, Ron Kliethermes, (back, L-R); Norb Wunderlick, Norman L. Brown, Jerry Bader and Bob Lewis. (Not pictured were Dallas Peters and John Miller.)



Some of the officials in attendance were, (front L-R) Ron Kliethermes, PLS, President of MACS, Ms. Mickey Koelling, President of the Foundation for Restoration of Ste. Genevieve, Dick Greminger, Mayor of Ste. Genevieve, John Carol and John Orem, Co-Chairs of the Cemetery Restoration Committee, (rear L-R) Jerry Bader, PLS, Ste. Genevieve County Surveyor, and Chairman of MACS's P.K. Robbins Memorial Committee, and Bob Kist, another representative of the Foundation for Restoration.

As the several officials and parties arrived at the old cemetery, all were greeted by Mayor Dick Gremminger, City Administrator Dick Herbel, Ms. Mickey Koelling, President of the Foundation for Restoration of Ste. Genevieve, Bob Kist and John Karel, co-Chairs of the cemetery restoration committee, as well as numerous other local officials and restoration committee members, many decked out in period dress. For everyone's information and inspection, there were displays presenting the landscaping and restoration plans, and a composite of the ground-penetrating radar survey done of the cemetery prior to the start of restorations.

All attending were entertained and informed with

presentations from a host of individuals who told of the rich history of the village of Ste. Genevieve, the significance of the contributions of U.S. Deputy Surveyor, Prospect K. Robbins, as well as the historic and current importance of the land surveying profession, and the role of the Fifth Principle Meridian as the reference line from which all current real property descriptions in Missouri and five other states are based.

Ms. Mickey Koelling, President of the Foundation for the Restoration of Ste. Genevieve, spoke of the early history of the village and cemetery, and the progresses made toward restoration of the old historic cemetery in the last several years.

Next, Michael Flowers, PLS, State Land Surveyor of the Missouri Department of Natural Resources, Division of



Among those donning period attire to honor the occasion were (L-R); Norman Brown, Laura and Dan Lashley, Jerry Bader and Mickey Koelling.

(continued on page 39)

MACS Celebrates 25th Anniversary (continued)

Geology and Land Survey, spoke of the history and cooperation of his department with Missouri's County Surveyors. He noted the importance of preparing accurate land survey documents and preserving those records for future reference. Flowers also mentioned the County



Jerry Bader, PLS, Ste. Genevieve County Surveyor, recalls his early years as he explains the operation of an historic surveyors magnetic compass.

historical proclamation of "Prospect K. Robbins, Surveyor of the Fifth Principal Meridian", (see sidebar), and commemorated the new memorial to Surveyor Robbins as part of the associations celebration of their 25th anniversary.

Gerald Bader, PLS, Ste. Genevieve County Surveyor, festooned in late-18th century costume, followed with more personal local history about the man, Prospect K. Robbins and his family, who moved to this area from Massachusetts in 1810. Bader noted that Robbins was remembered as "a finely educated man, a good surveyor and teacher of surveying".

Dan Lashley, PLS, Project Surveyor for the Missouri Division of Geology and Land Survey, was also dressed in a period costume of an early-1800's surveyor. Together with a genuine magnetic compass and 'two-pole chain' used by early surveyors of Robbins' time, he provided historic insight into the tasks and perils encountered by the first surveyors as they labored to complete their original surveying of the mostly unknown lands that made up the Missouri Territory. These original surveys of the Meridian and Base Line were conducted in the late autumn months, when temperatures were more comfortable for the hard labor, much of the leaf cover has fallen, and fewer insects and other varmints might be encountered.

The finale of the program was a presentation by Norman L. Brown, PE, PLS, retired Project Surveyor of the Missouri Division of Geology and Land Survey, and former Texas

Surveyor Cooperative Remonumentation Program, administered by the Division of Geology and Land Survey, whereby, with the input and efforts of county and private land surveyors throughout Missouri, hundreds of verifiable U.S. Public Land Survey corners are restored and remonumented in this state each year.

Ron Kliethermes, PLS, President of the Missouri Association of County Surveyors, and former County Surveyor for Cole, Cooper and Moniteau Counties, delivered an

County Surveyor. Mr. Brown, decked in historical buckskins often favored by the original surveyors and explorers, provided more historical insight into the work done by the first surveyors, and the special significance of Ste. Genevieve's own historic native, U.S. Deputy Surveyor, Prospect K. Robbins.

Prospect K. Robbins, together with another U.S. Deputy Surveyor, Joseph C. Brown, marked the Meridian and its Base Line, which are the basis for the first and all land surveys for a large part of Missouri and surrounding states. Norman Brown confessed that P.K. Robbins is known to have included extra length in the line he surveyed. Brown stated that it was the standard practice in New England, where Robbins learned to survey, to include "the usual overage" to allow for unfit land. Some of today's surveyors, especially those who work in this local area near to the Meridian, may look on Robbins' standard of practice as some form of an error or a failure in accuracy, as there is routinely an extra fifty to one hundred more feet in distance between each half-mile marker that Robbins set along the line. However, in this day's memorial ceremonies Norman L. Brown reasoned that P.K. Robbins "did the best job that he could do, as best as he was taught and knew how – and that is all that can be expected of any one of us today".

When questioned as to whether he, Norman L. Brown, might be a distant relative of the original surveyor of the Base Line, Joseph C. Brown, Norman answered that the elder Brown hailed from a different



O. Dan Lashley, PLS, Project Surveyor for DGLS, presents historic details of the practices and hardships encountered by surveyors in P.K. Robbins' time.



Norman L. Brown, PLS, (a.k.a. "the old surveyor"), retired Project Surveyor for DGLS, tells stories of the courage and character of the early surveyor-explorers.

(continued on page 40)

MACS Celebrates 25th Anniversary (continued)

state than the younger – and in fact Norman appeared somehow ‘tickled’ to profess that he believes that “I am not related to anybody”.

As a lasting memorial to Robbins, the Missouri Association of County Surveyors has donated a new quarried limestone bench to the old Ste. Genevieve Cemetery restoration project. The bench is placed along a new visitors’ pathway through the cemetery. On the bench is attached a bronze plaque with the following inscription:

“In memory of Prospect K. Robbins, Surveyor, 1782-1847: In the fall of 1815, under contract with the General Land Office, he surveyed the first 375 miles of the Fifth Principal Meridian, the North-South line from which all land surveys



Lashley, Brown and Bader share a laugh as Brown offered an explanation for P.K. Robbins’ “usual overage”. He theorized that; “Robbins had a ‘learning disability’, since he learned how to survey in New England.”

in Missouri and five other states are based. Per orders, he began “at the mouth of the Arkansas River, thence North to a point on the Missouri River west of St. Louis. (Dedicated by the Missouri Association of County Surveyors in 2006)”

The Missouri Association of County Surveyors, (“MACS”), was founded in 1981 by an energetic and foresighted group of ‘registered’ surveyors, with the purposes of promoting the land surveying profession, and the importance of the elected position of County Surveyor. The association has grown to nearly fifty licensed and/or associate members, comprising a variety of currently-elected or appointed county surveyors, former county surveyors, and many associate members who assist in tasks related to the land surveying profession.



Restorations to the memorial cemetery are nearing completion. A day-trip to Ste. Genevieve and these grounds will acquaint you with several early historic places and persons, and may result in your discovery of a long-passed relative laid to rest in this peaceful site.

In Recognition of Past Presidents of MACS:

1981	Robert “Bob” Lewis	Warren County	1994	Ralph Riggs	Howell County
1982	Don Griffin	Boone County	1995	Thomas King	Johnson Co.
1983	Gene Buzzard	Buchanan County	1996	Michael Zahner	Ste. Genevieve Co.
1984	William “Bill” Meyer	Lafayette County	1997	Michael Freeman	Hickory County
1985	Larry Elliott	Stoddard/Dunklin Cos.	1998	Loyd Todd	Christian County
1986	Norb Wunderlich	Franklin County	1999	Dennis Kallash	Montgomery/Pile Cos.
1987	Robert Robinson	Saline County	2000	Sam Orr	Dade County
1988	Robert Pirrie	Ste. Genevieve Co.	2001	Ralph Kliethermes	Osage County
1989	William Shea, Jr.	Lincoln County	2002	Craig Ruble	Dent County
1990	Robert S. Shotts	Dallas/Laclede Cos.	2003	Dennis Amsinger	Webster County
1991	Sam R. Goodman	Barry/Lawrence Cos.	2004	Gerald Bader	Ste. Genevieve Co.
1992	Jack Beale	Lafayette County	2005	John W. Read	Stone County
1993	Glenn Roberts	St. Francois County	2006	Ron Kliethermes	Cole/Cooper/Moniteau Cos.

Commemorating the 25th Anniversary of the
Missouri Association of County Surveyors
1981-2006

Prospect K. Robbins, Surveyor of the Fifth Principal Meridian

*A presentation for the Prospect K. Robbins memorial ceremonies held at
the historic Old Ste. Genevieve Cemetery, Ste. Genevieve, Missouri
November 18, 2006*

IN DECEMBER OF 1803, THE UNITED STATES OF AMERICA PURCHASED 909-THOUSAND SQUARE MILES OF LAND LYING WEST OF THE MISSISSIPPI RIVER FROM THE COUNTRY OF FRANCE. THIS 5.8-BILLION ACRE PURCHASE, REACHING FROM THE GULF OF MEXICO, NORTH INTO CANADA, EFFECTIVELY DOUBLED THE SIZE OF THE THEN "UNITED STATES". THESE NEW LANDS WERE MOSTLY UNKNOWN AND SPARSELY POPULATED UNTIL AFTER THE WAR OF 1812, WHEN THE OPENING OF THE SEVERAL TERRITORIES WAS BEGUN IN EARNEST.

IN THE FALL OF 1812, CONGRESS ESTABLISHED THE "GENERAL LAND OFFICE", TODAY KNOWN AS THE "G.L.O.", DIRECTING PRESIDENT JAMES MADISON TO HAVE SIX MILLION ACRES OF THE NEW LANDS SURVEYED AND DISTRIBUTED TO WAR VETERANS AS PAYMENT FOR THEIR MILITARY SERVICE. IN ORDER TO PROPERLY AND ACCURATELY LOCATE, MAP, CATALOG AND CONVEY TITLE TO THESE LANDS, A REFERENCE SYSTEM FIRST NEEDED TO BE ESTABLISHED ON THE GROUND. WITH A DIRECTIVE GIVEN IN 1815, TWO MILLION OF THESE ACRES WERE TO BE SURVEYED IN THE MISSOURI AND ARKANSAS TERRITORIES.

ON OCTOBER 27TH OF 1815, U.S. DEPUTY SURVEYOR PROSPECT K. ROBBINS AND HIS CREW, AS DIRECTED BY THE "G.L.O.", STARTED AT THE MOUTH OF THE ARKANSAS RIVER, AND PROCEEDED TO THE "NORTH", MARKING THE TERRITORIES' FIRST SURVEY REFERENCE LINE, CALLED THE "FIFTH PRINCIPAL MERIDIAN". PER THE "G.L.O." INSTRUCTIONS, THE SURVEYORS MARKED THE MERIDIAN LINE WITH A MONUMENT EVERY "40 CHAINS" OR 1/2 MILE.

ON THAT SAME DAY IN OCTOBER, U.S. DEPUTY SURVEYOR JOSEPH C. BROWN BEGAN AT THE MOUTH OF THE ST. FRANCOIS RIVER, AND MARKED THE SURVEY REFERENCE LINE TO THE "WEST", KNOWN AS THE "BASE LINE". THIS BASE LINE INTERSECTS THE FIFTH PRINCIPAL MERIDIAN IN EASTERN ARKANSAS, AT WHAT IS CALLED THE "INITIAL POINT".

IN ONLY TWO MONTHS TIME, U.S. DEPUTY SURVEYOR ROBBINS AND HIS CREW HAD FAITHFULLY COMPLETED THEIR INITIAL TASK WHEN THEY REACHED THE MISSOURI RIVER ON DECEMBER 28TH, 1815, AT A POINT EAST OF WHAT IS NOW THE CITY OF WASHINGTON, MISSOURI. THE END POINT OF THIS FIRST-COMPLETED SEGMENT OF THE FIFTH PRINCIPAL MERIDIAN BEING SOME 317 MILES, 35 CHAINS AND 76 LINKS NORTH FROM THEIR STARTING POINT.

SOON THEREAFTER, MORE SURVEYORS CAME TO LAYOUT TOWNSHIPS OF SIX MILES SQUARE, AND TO DIVIDE THESE INTO THE FAMILIAR 'RECTANGULAR' SYSTEM OF ONE-MILE SQUARE SECTIONS, ALL PER "G.L.O." INSTRUCTIONS, TAKING CARE TO MEASURE AND MAP THE PRE-EXISTING LAND CLAIMS OF THE FRENCH AND SPANISH SETTLERS.

THIS "FIFTH PRINCIPAL MERIDIAN" AND "BASE LINE" ARE THE REFERENCE LINES FOR ALL LAND SURVEYS, AND ALL PROPERTY DESCRIPTIONS USED FOR DEEDS TO LAND LOCATED IN THE STATES OF MISSOURI, ARKANSAS, IOWA, NORTH DAKOTA, HALF OF SOUTH DAKOTA, AND MOST OF MINNESOTA

ON TODAY'S OCCASION, IN THESE PRESENTATIONS TO HELP COMMEMORATE THE 25TH ANNIVERSARY OF THE FOUNDING OF THE MISSOURI ASSOCIATION OF COUNTY SURVEYORS, WE GATHER HERE TO GIVE TRIBUTE, AND DEDICATE A MEMORIAL TO ONE OF THE HISTORIC FIRST LAND SURVEYORS OF THE MISSOURI TERRITORY, PROSPECT K. ROBBINS, WHO WAS KNOWN AS "A FINELY EDUCATED MAN, A GOOD SURVEYOR AND TEACHER OF SURVEYING".

AND ALSO WITH THESE PROCEEDINGS, WE MEMBERS OF THE MISSOURI ASSOCIATION OF COUNTY SURVEYORS, DO HEREBY PLEDGE TO RE-DEDICATE OUR EFFORTS TO FAITHFULLY SERVE THE CITIZENS OF OUR STATE AND NATION WITH HONESTY AND PROFESSIONALISM, AND TO UPHOLD THE HONOR OF OUR PROFESSION AS LAND SURVEYORS.

Respectfully presented,

The MISSOURI ASSOCIATION of COUNTY SURVEYORS

By: Ronald E. Kliethermes, PLS, President, Gerald Bader, PLS, Chairman, P.K. Memorial Cmte., Mary Frye, Exec. Sec'y.

Engineers Without Borders

The University of Missouri—Columbia student chapter of Engineers Without Borders (EWB) recently completed an assessment trip to Santarem, Brazil. The July 2007 assessment team was comprised of two University of Missouri-Columbia students and one alumnus: Rick Coffman, P.E., P.L.S., a doctoral candidate in civil engineering; Cole Duckworth, a junior in civil engineering; and Sarah Otto, a MU civil engineering graduate working at Burns and McDonnell in Kansas City.

Engineers Without Borders is a non-profit organization whose mission is to partner with disadvantaged communities to improve their quality of life through implementation of environmentally equitable and economically sustainable engineering projects. Student chapters specifically aim to develop internationally responsible engineering students. EWB student chapters develop continuing relationships with disadvantaged communities, sometimes returning year after year to the same areas. Typically, the student chapter conducts an assessment trip for each project followed by an implementation trip to resolve the project problem.

The MU student chapter was made aware of a flooding problem at a school in Santarem, Brazil. The frequent flooding was preventing the use of the school building and surrounding community athletic fields. The purpose of the



assessment trip was to investigate and assess the severity of the flooding problem, collect topographic data to be used for proper drainage design, and develop a partnership with the Santarem community.

Topographic data was collected using a Topcon® total station and data collector graciously donated by Griner and Schmitz, Inc. of Kansas City, Missouri, for use during the assessment trip. The point data collected were converted to a digital elevation model (DEM) to be used by the students during the course of the next year while designing improved site drainage and determining the amount of water to be rerouted around the school site.

The assessment team was pleasantly surprised by the curiosity and amazement of community members about surveying equipment which is commonplace for Missouri surveyors. The trip provided the assessment team and the community with a learning experience that will last a lifetime. The student chapter plans to travel back to Santarem in the summer of 2008 with 10-12 students to implement their design for improved drainage that will make the school and athletic field useable for the people of Santarem.

The MU chapter is currently accepting tax deductible donations for the 2008 implementation trip. Please contact Rick Coffman at (573) 289-8916 or racpz6@mizzou.edu for details.



Engineers Without Borders mission:

The mission of Engineers Without Borders™ - USA (EWB-USA) is to partner with disadvantaged communities to improve their quality of life through implementation of environmentally, equitable, and economically sustainable engineering projects, while developing internationally responsible engineers and engineering students. EWB-USA's outward vision is of a world where all people have access to adequate sanitation, safe drinking water, and the resources to meet their other self-identified engineering and economic development needs. EWB-USA's initial inward vision is as a project coordination, funding, supervision and documentation organization that links university engineering schools with project opportunities, primarily in the developing world. In the future EWB-USA anticipates both professional and institutional partners and the ability to link this cadre of human capacity into the broad range of development programs.

Robert E. Myers Service Award Awarded to John Teale

John Teale, PLS, President of Midland GIS Solutions, was awarded the Robert Myers Service Award at the MSPS Annual Convention awards banquet. The Robert E. Myers service award has been given since 1990. This award is given to a MSPS member who, over an extended period of time has given exemplary service and dedication to the surveying profession and in particular to the Society. The recipients of this award stand out as surveyors who have gone the extra mile in dedicating much more than just getting the job done.

John grew up in Iowa, working for an engineering firm while in high school; attended college in Northwest Missouri graduating with a Bachelor of Science Degree. In 1973 he went to work for Midland Engineering and received his registration as a Land Surveyor in Missouri in 1979. He has been a member of MARLS/MSPS for many years, serving on the Board of Directors, and was President in 1991. He has served on numerous committees with MSPS as well as serving on the Land Survey Advisory Committee. He served as an active member of the Northwest Missouri State University Department of Geology/Geography Advisory Committee and many other civic activities.

John is also registered as a Land Surveyor in Iowa, Kansas and Nebraska. In 2006, John was appointed by Governor



Matt Blunt as a member of the Land Survey Division of the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Landscape Architects. He owns Nodaway County Abstract and Title Company and is President of Midland GIS Solutions.

John and his wife Kris, have two sons, Greg and Adam and five grandchildren.

Surveyor of the Year – 2007 Michael Gray

The Surveyor of the Year award has been given since 1987. This award is given to a MSPS member who has given freely of his time and efforts to the organization and toward the better of the surveying profession. This is the most prestigious and gratifying recognition for a member of this society.

Mike Gray grew up Southwest Missouri, was drafted into the Army in 1969 and served time in Viet Nam & Germany. In 1972 he started to work in surveying for a firm in Southwest Missouri, then spent the next 34 years with that firm. Mike received his Missouri Professional Surveyor License Land Surveyor in 1981. In 2006 started his own survey firm, Gray and Associates with his sons Mike, Matt and son-in-law Jerry.

Mike was appointed the Board of Registration in 2001, then reappointed in 2005 and currently serving as the Chairman of the Land Survey Division.

Mike has been a member of MSPS as well as other survey organizations for over 25 years. He is also registered as a Land Surveyor in Arkansas, Kansas and Oklahoma.

He and wife, Paula, have been married for 33 years and have three children and three grandchildren. He served on



the Ash Grove School Board for nine years and was President for four of those years. He has served on the Advisory Committee for the Ozark Technical Community College for the Board of Trustees. And in his spare time he enjoys spending time with his grandsons, golfing, gardening and landscaping.



Recognition Ceremony for New PLSs and LSITs during annual meeting activities of the Missouri Society of Professional Surveyors.

Congratulations!

LSITs licensed in 2007

Tim Bauer, St Louis, MO
 Matthew D. DeJournett, Scott City, MO
 Douglas R. Flath, Caseyville, IL
 Larry J. Gordon, Liberty, MO
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 James F. Jasper, Forsyth, MO
 Chad J. Legate, Grain Valley, MO
 Ernest J. Lortz, Belle, MO
 Randall B. Lyon, Carl Junction, MO
 Raymond S. McCrae, Fairdealing, MO
 Randall L. McDaniel, Carthage, MO
 Matthew J. Schlicht, Lee Summit, MO
 Travis J. Steffens, Perryville, MO
 Jason M. Worley, Louisburg, MO

PLSs licensed in 2007

Andrew M. Allen, Osage Beach, MO
 Rodney W. Amos, Jackson, MO
 Timothy S. Atkins, Lee Summit, MO
 W. Andrew Daniel, Ozark, MO
 Stephen M. Dickson, Hannibal, MO
 David D. Drumm, Springfield, MO
 Brad W. Ferguson, Fulton, MO
 Daniel B. Fisher, Puxico, MO
 David A. Gann, Lee Summit, MO
 Michael D. Gray, Republic, MO

Paul V. Greenhagen, Eden Prairie, MN
 Jamey A. Henson, Festus, MO
 Steve Kersey, Sedalia
 Dave L. Kneubuhl, Smolan, KS
 William E. Knight, Springfield, MO
 Jason L. Kraner, Bunker Hill, MO
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 Jonathan A. Meyer, Lee Summit, MO
 Mark A. Miller, Conifer, CO
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 Rance S. Olliges, Glen Carbon, IL
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50 Years of MSPS Past Presidents

2007	F. Shane Terhune	1991	Erwin Gard	1975	R. E. Riddle, Jr. (deceased)
2006	Steven Borgmann	1990	Dan Govero	1974	Morton L. Ratliff
2005	Craig Ruble	1989	Robert Pirrie (deceased)	1973	Norman L. Brown
2004	Robert S. Shotts	1988	Kenneth West	1972	William I. Shafer
2003	Richard Cox	1987	John Michael Flowers	1971	Richard J. Barr
2002	Dan Lashley	1986	James S. Anderson	1970	H. C. Kaller
2001	Michael Zahner	1985	Don Griffin	1969	James S. Reed
2000	Charles E. Kutz	1984	Robert Lewis	1968	R. E. Riddle, Jr. (deceased)
1999	Troy L. Hayes	1983	Richard Elgin	1967	C. R. Ulrich
1998	John O. (Jack) Beale	1982	Roy E. Leimberg	1966	R. J. Waller (deceased)
1997	Robert F. Arnold	1981	Lloyd V. Garner	1965	M. S. Madden (deceased)
1996	John A. Stevens	1980	Raymond C. Roudebush	1964	Robert E. Myers
1995	John Alan Holleck	1979	Wesley R. Wagner (deceased)	1963	J. K. Roberts
1994	Bill Kankolenski	1978	David G. Krehbiel	1962	W. M. Spann, Jr. (deceased)
1993	Rich Norvell	1977	Richard W. Gray, Jr.	1961	E. K. Thatcher
1992	John Teale	1976	J. Stanley Coalter	1960	C. C. Redman, Jr. (deceased)
				1959-57	T. C. Horstmann (deceased)

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