

“The Initial Point to the 5th Principal Meridian”

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November 10, 2015 is an important date to nearly every American who owns land in the states of Arkansas, Missouri, Iowa, North Dakota and in parts of Minnesota and South Dakota. Every surveyor in those states should stop for a moment, and with head bowed, remember every GLO Deputy Surveyor who surveyed on the U.S. Public Land Survey System (USPLSS). Why November 10, 2015? Because that will be 200 years to the day, the Bicentennial, of the establishment of the Initial Point for the 5th Principal Meridian. That initial point is “zero, zero,” the point to which practically all titles to the lands listed in the states above are referenced. More land in the United States is referenced to this point, in a swamp in eastern Arkansas, than any other Initial Point. From that point the township and range numbering systems begins for those states. It ends at the northwest corner of North Dakota, in Township 164 North, Range 103 West. See Figure 1.

1785-1815

The genesis of our USPLSS can be traced back to the Land Ordinance of May 20, 1785. The system’s first experiment was in the Seven Ranges of southeastern Ohio, then spread westerly being modified and improved into the Northwest Territories and beyond. Under the system, each large segment of land requires a North-South Principal Meridian and an East-West Base Line, the intersection of these lines being the Initial Point. These Initial Points are the “zero, zero” for the USPLSS, from which township and range numbering begins. Yes, there are exceptions, but this is the general plan. As the USPLSS expanded westward, the location of meridians were decided, as were their Initial Points. Some were numbered, others were named.

With the 1803 Louisiana Purchase America acquired some 830,000 square miles of public land, doubling the size of our country. (The boundaries ill-defined and not surveyed of course. Sound familiar?) With the War of 1812 (June, 1812 until February, 1815) war veterans were pressuring the government to provide the promised land grants in payment for their service. The government (which was broke, sound familiar?) looked to the public lands as a means of providing military

bounties, but the lands had to be surveyed and platted and title to the Native Americans extinguished before it could be granted. The Act of May 6, 1812, 2 Stat. 728, addressed this problem and states:

That the President of the United States be, and he is hereby authorized to cause to be surveyed a quantity of the public lands of the United States, fit for cultivation, not otherwise appropriated, and to which Indian title is extinguished, not to exceed six millions of acres, two millions to be surveyed in the territory of Michigan, two millions in the Illinois territory, north of the Illinois River, and two millions in the territory of Louisiana, between the River St. Francis and the River Arkansas; the said lands to be divided into townships, and subdivided into sections and quarter sections....

The wording in this act calling for the St. Francis and Arkansas Rivers no doubt influenced the locations of the Fifth Principal Meridian (5th P.M.) and the corresponding base line, the surveys for which commenced in late 1815.

Establishing the Initial Point

On July 26, 1815, GLO Surveyor General Edward Tiffin wrote William Rector, the Principal Deputy Surveyor (in St. Louis), directing him to survey two million acres of land between the St. Francis and Arkansas Rivers:

...let a standard line [Principal Meridian] be accurately run from the confluence of the Arkansas with the Mississippi due north according to the true meridian so far, that a base line run due west from the mouth of the River St. Francis to the Mississippi will intersect it....

Thus the instructions were issued for the establishment of the location of the Initial Point for the 5th Principal Meridian. Little did Surveyor General Edward Tiffin know this arbitrary instruction of establishing one of the most important points of the nation's entire USPLSS would land in a swamp in eastern Arkansas.

On October 9, 1815, Principal Deputy Surveyor William Rector contracted with Prospect K. Robbins, as a deputy surveyor, to survey the 5th P.M. and with Joseph C. Brown, as a deputy surveyor, to survey the base line. Both Robbins and Brown were from the St. Louis area. In October, 1815 Robbins and Brown likely came by boat down the Mississippi River. Per their notes, on October 27, Brown commenced surveying the base line west from the mouth of the St. Francis River. On the same day, Robbins commenced surveying the 5th P.M. north from the mouth

of the Arkansas River. Since the Initial Point was yet to be established at the intersection of these two lines, and since all townships were to be referenced to this point, both surveyors set temporary mile posts on their lines. These lines would later have to be resurveyed, south for the 5th P.M. and east for the base line, setting section and quarter corners, all referenced to the Initial Point, back to the rivers' mouths. Not knowing where the Initial Point was to be located, but assuming (correctly as it turned out) that the base line distance to this intersection would be less than the principal meridian distance, Brown reached the yet to be located point on November 2 and continued some 13 miles to the west. Robbins intersected Brown's base line survey on November 10 at a distance of 57 miles 60.50 chains north from the mouth of the Arkansas River and 26 miles 30 chains west from the mouth of the St. Francis River. His notes state that he set the following:

...a Post corner of Sects 1, 6, 31 & 36 & Townships 1 & 1 N of Ranges 1 E & 1 W from which a Gum 18 in dia bears N61E dist 44 lks & a do 18 in dia brs S70W dist 10 L.

This location, the Initial Point for the 5th P.M. was in the middle of a cypress swamp. What a historic event and place! All land parcels in Arkansas, Missouri, Iowa, North Dakota, and parts of South Dakota and Minnesota are referenced by township and range to this point. It references more land area than any other Initial Point in the USPLSS.

According to the notes, a few days later Brown returned to the now-monumented Initial Point and probably met with Robbins. On November 16 (some accounts incorrectly give December 6), Robbins continued surveying the 5th P.M. north setting posts and calling for two bearing trees at the standard section and standard quarter section corners. He continued the meridian north into what is today Missouri, and on until he reached the Missouri River on December 28 (west of St. Louis and just downstream from the present day town of Washington, Missouri). Robbins had surveyed 317 miles 35 chains from the mouth of the Arkansas River in 63 days. Counting from the Initial Point, he had surveyed 259 miles at the rate of about 6.2 miles per day. (The 5th P.M. has its errors, but let's leave that discussion to another article.)

On November 25 Brown surveyed from the Initial Point west on the base line setting posts and calling for two bearing trees at the standard section and standard quarter section corners until he reached the Arkansas River on December 5 (near present day Little Rock). Other than setting temporary mile posts from the St. Francis to the Initial Point, this is the only portion of the base line surveyed by

Brown. On November 26, Charles Lockhart, who had come down from St. Louis, surveyed the base line back east from the Initial Point reaching the St. Francis on December 4. On December 2, another deputy surveyor, Thomas Cox, began his survey from the Initial Point south, back down the 5th P.M. to the mouth of Arkansas River, setting a monument every 40 chains. Thus began the first surveys of the USPLSS west of the Mississippi River. See Figure 2.

Since 1815

The Initial Point lay somewhat dormant and forgotten until 1921 when two surveyors, Tom Jacks and Eldridge Douglas from nearby Helena, Arkansas were hired to locate the point (which is the corner point to three counties). They claim to have found the original bearing trees (two Tupelo Gum trees) standing in a swamp and marked by Robbins some 106 years earlier. This created interest in the historical point that had been unoccupied for over 100 years, and the L'Aguille Chapter of the Daughters of the American Revolution placed a granite monument at what they termed "The Louisiana Purchase Monument." See Figure 3. It was dedicated October 27, 1926. On the face of the monument is inscribed:

THIS STONE MARKS THE BASE ESTABLISHED NOV. 10, 1815 FROM WHICH THE LANDS OF THE LOUISIANA PURCHASE WERE SURVEYED BY UNITED STATES ENGINEERS, THE FIRST SURVEY FROM THIS POINT WAS MADE TO SATISFY THE CLAIMS OF SOLDIERS OF THE WAR OF 1812 WITH LAND BOUNTIES. ERECTED BY THE DAUGHTERS OF THE AMERICAN REVOLUTION SPONSORED BY THE L'ANGUILLE CHAPTER

It is somewhat disappointing that the term "engineers" was used rather than "surveyors;" however, surveyors owe this organization a debt of gratitude for preserving such an important survey point.

In October, 1945 the General Land Office had surveyors Oscar Walsh and Hugh Crawford determine, by traversing from established control, the geographic location of the monument. They determined the coordinates to be: Latitude 34° 38' 44.728" N and Longitude 91° 03' 06.847" W. The modern GPS-derived position (NGS, 1999) for the Initial Point is Latitude 34° 38' 44.455" N and Longitude 91° 03' 07.337" W.

Neglected for many years, in the early 1970's the monument and the area around it was again remembered and efforts were made to preserve the site as a park. According to a 1980 account of the June 25, 1972 rededication of the

monument by the dean of Arkansas boundary surveying, the late Larry Young (who was there), speakers at the ceremony included Governor Dale Bumpers; Clark Gumm, Chief of Cadastral Surveys, BLM; representatives of France, Spain and Great Britain, being Benoit d'Abbeville, Juan Cabrero and Archie Rendall, respectively. Dr. Lily Peter, Arkansas Poet Laureate recited a poem and singer-songwriter Jimmy Driftwood sang "*Liquidambar Styraciflus, Sweet Gum Tree.*" (At the November 10, 2015 bicentennial ceremony, the organizers will have to "pull out all the stops" to beat that lineup! Perhaps someone will sing Driftwood's "*Liquidambar Styraciflus*," I'd like to hear it.)

Today the location is in the Louisiana Purchase State Park and has a boardwalk through the swamp so visitors can view this historic location. The Initial Point monument was designated a National Historic Landmark in 1993.

The Surveyors

The Base Line, Deputy Surveyor Joseph C. Brown (1784 - 1849)

Joseph Cromwell Brown enjoyed a full and notable career as a surveyor. Born January 29, 1784 in Prince Edward County, Virginia, he arrived in St. Louis sometime during the War of 1812. His first notable survey was as deputy surveyor, surveying the 5th P.M.'s base line in late 1815. In late 1816 Brown surveyed the west line of the "Treaty of Fr. Clark," in the 1820's he was in St. Louis surveying tracts and, in 1823, he surveyed the west and south lines of the new State of Missouri. In 1825-1826 he surveyed the Santa Fe Trail "preferred to all his competitors...best qualified in all respects." When the Missouri/Iowa boundary became disputed, in 1837 Brown was called upon to resurvey the line. In 1849 the U.S. Supreme Court rejected Brown's line (and others) and decreed "Sullivan's Line" of 1816 to be the state boundary. Brown then was appointed one of the surveyors to resurvey Sullivan's Line. On February 21, 1949 Joseph C. Brown died before the resurvey could begin. He is buried in Bellefontaine Cemetery in St. Louis.

The Principal Meridian, Deputy Surveyor Prospect K. Robbins (1788 - 1847)

Prospect K. Robbins was born in Pittsfield, Massachusetts in 1788 and migrated to Monroe, Lincoln County, Missouri in 1810. He would live in the Lincoln County and St. Charles area for the next two decades. An educated man, he assumed roles in government and commerce. During the War of 1812 he served as an officer under Captain Nathan Boone (Daniel Boone's son) and Captain James Callaway.

During the War, the future Surveyor General for the Missouri Territory, William Rector was a Brigadier General, serving in Illinois. No doubt Robbins and Rector knew each other through their military service during the War. In late 1815 he surveyed the 5th Principal Meridian with brothers John and Alexander Baldrige and Hiram Scott. The four had served together in the St. Charles district militias during the war. As a Deputy Surveyor, Robbins surveyed portions of Standard Lines in Missouri and had contracts to subdivide townships. He taught school, served in various public roles, was a county surveyor and served as Brigadier General in the state militia. In about the mid-1830's he moved to Ste. Genevieve, Missouri. According to the burial records of the Memorial Cemetery in Ste. Genevieve, Prospect K. Robbins was buried in the cemetery in June, 1847. In an inventory of his estate, no surveying equipment is listed. Although members of the Missouri Association of County Surveyors have made a search of Memorial Cemetery, no headstone for Robbins has been located.

November 15, 2015

Tuesday, November 10, 2015 will be 200 years to the day of the establishment of the Initial Point. Both the Arkansas Society of Professional Surveyors (ASPS) and the Missouri Society of Professional Surveyors (MSPS) are planning events to commemorate both the Initial Point and the 5th P.M. Watch their websites for announcements and information.

Dick Elgin is a surveyor, author and educator. He wrote the book *"The U.S. Public Land Survey System for Missouri."* With David Knowles, they wrote the "companion book" for Arkansas, and *"Legal Principles for Boundary Location for Arkansas."* Dick is a past president of MSPS and a past member of the Missouri Registration Board. If you would like to meet him, be at the 5th PM Initial Point on November 10, 2015. Dick says he'll buy anyone a beer who will sing Driftwood's *"Liquidambar Styraciflus"* at the I.P. that day.



FIGURE 1
Lands Referenced to the Initial Point of the 5th Principal Meridian
Taken from "Initial Points of the Rectangular Survey System"
by Albert White (1996)

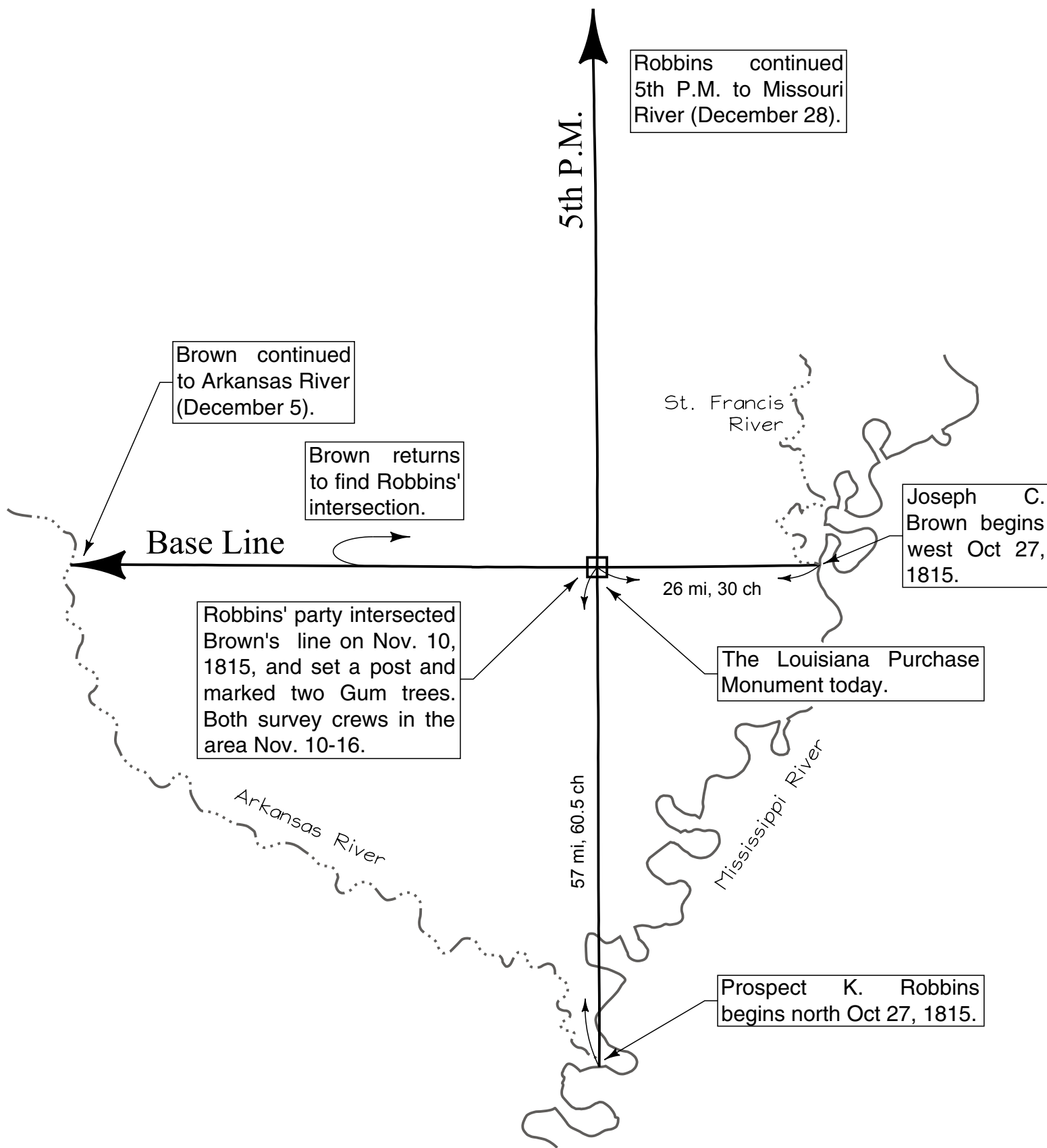


FIGURE 2
Establishment of the Initial Point
of the 5th Principal Meridian
November 10, 1815



FIGURE 3
Monument marking the Initial Point of the 5th Principal Meridian
(Photo provided by the Arkansas Society of Professional Surveyors)