

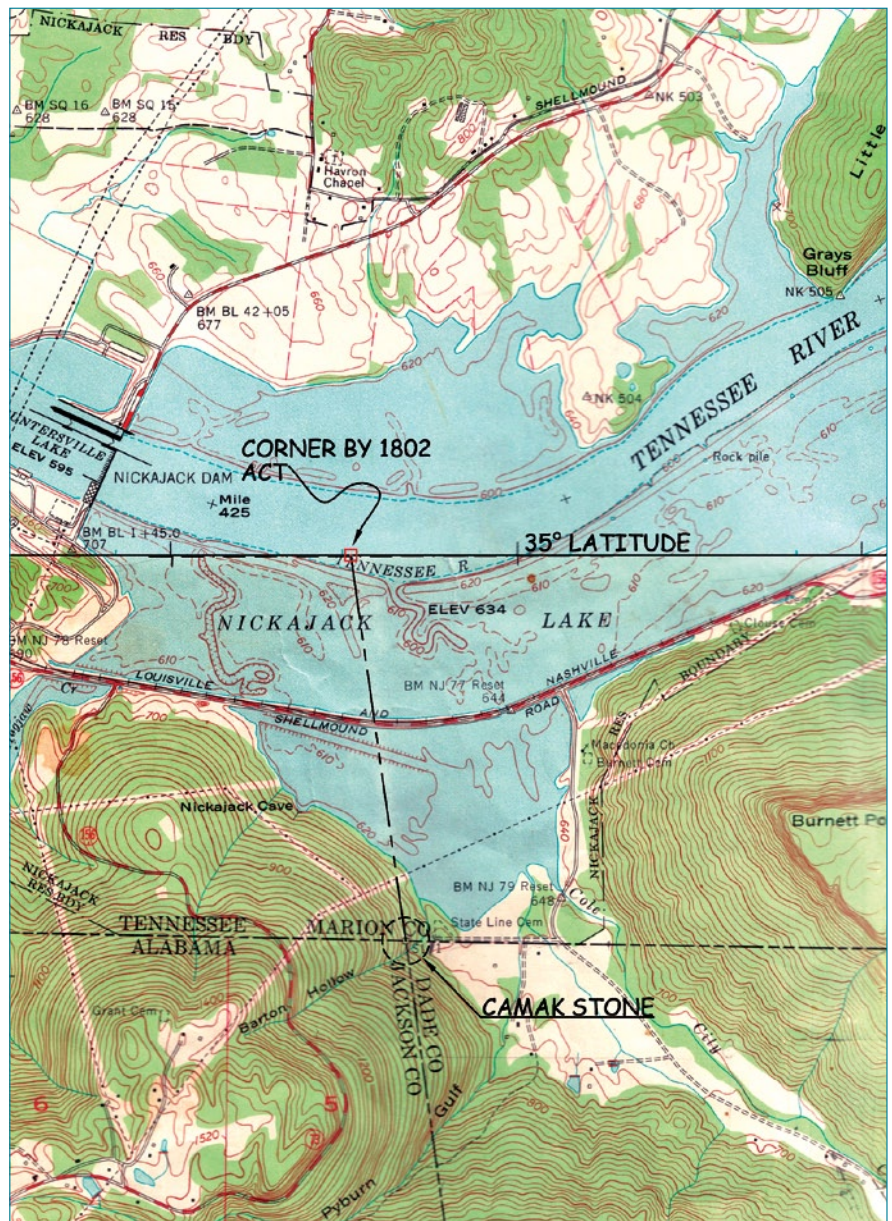


Bart Crattie is a Land Surveyor registered in the States of Georgia and Tennessee. He serves on the Board of Directors of the Surveyors Historical Society.

Georgia's Water Shortage and a Surveyor's Miscalculations

Because of typographical errors in a book of mathematical tabulations and poorly constructed equipment, the nearly infinite supply of water in the Tennessee River is not available to the citizens of the State of Georgia. Residents of Atlanta and portions of northwest Georgia are experiencing one of the most drastic droughts in years and now fret at the actual possibility that they could completely run out of that vital liquid. Little do they know that because of a series of historical accidents, the State of Georgia should have full access to those sweet waters of the Tennessee River.

In June of 1796 the United States Congress established the State of Tennessee. Part of the Act designated the south boundary of the new State to be the 35th degree of north latitude. Georgia, at that time, had already enjoyed eight long years of statehood. This Act officially established the line between the former colony and the new state. During this period, the boundaries of Georgia extended all of the way to the Mississippi River. In 1802 Georgia gave up all possession of what was then known as the Mississippi Territory (currently the States of Alabama and Mississippi). The 1802 Articles of Agreement and Cession described the new western boundary of Georgia to be, in part, "...thence in a direct line to Nickajack, on the Tennessee
continued on page 70



The two corners as plotted on current quad sheets. Notice the statute corner falls in the old bed of the Tennessee River.

Crattie, continued from page 72

River; **thence crossing the said last-mentioned river**, and thence...along the western bank thereof to the southern boundary of the State of Tennessee.”

In the spring of 1818, steps were made to mark this boundary corner (Alabama, Georgia and Tennessee). As recounted in a March 2004 article in *Professional Surveyor* by Greg Spies, a mathematician named James Camak gathered at the village of Nickajack along with a group of appointed commissioners and fellow surveyors. The village occupied a large flat plain on the south bank of the Tennessee River just below the cave of the same name. Agreeing they were in the vicinity of the 35th parallel, the surveyors proceeded to make a number of astronomic observations.

Prior to the proliferation of global positioning units, surveyors relied on the heavenly bodies to determine their location on the face of the earth. Books of known data on various stars and the sun called ephemerides were available and relied upon by the early surveyors. By making observations at specific times

and performing calculations based on the information in the charts, it was possible to arrive at quite precise answers as to one’s location. However, the answer was only as good as the charts being used as well as the apparatus employed.

The first session placed them anywhere from 11 miles north to 11

But, unfortunately for the citizens of the State of Georgia, the corner is where the corner is.



miles south of the target line. Wisely, the group decided to dispense with that particular instrument and all calculations to date. Mr. Camak observed for 10 more days and nights, finally to arrive at the conclusion to place the corner stone “...one mile and 7 chains [about 5700 feet] from the Tennessee River and about one quarter of a mile south of Nickajack Cave.”


Camak taught mathematics at the University of Georgia in Athens. He had fruitlessly begged the Governor to allocate decent, state of the art surveying instruments. These never arrived, so he relied on simply a sextant “of English construction”. Sextants being primarily for marine usage simply get you close to your destination. Camak also expressed doubts about his astronomical tables stating they “were not such as I could have wished them to be”.

In 1826, Camak had occasion to return to the Cherokee village below the cave. Once again, he had been appointed by his State to mark the entire boundary line between Georgia and Alabama. Again, Camak made 10 days of astronomic observations. This time, he determined that the northwest corner of Georgia was marked 37.9 chains (about 2500 feet) south of the 35th parallel. So that year, the “Camak Stone” was pulled up and moved north to its current location.

Unfortunately for the State of Georgia he was terribly off with the corner location in both cases.

With one leg in Alabama and one in Tennessee, facing east, Tennessee is to the left and Georgia is to the right.

Present day, using modern mapping and measuring techniques, we now know that Mr. Camak placed the now recognized, established and accepted corner approximately 5600 feet (about 1.1 miles) south of where the Congressional Acts and the record description say it should have been placed. The original record location actually falls within the old bed of the Tennessee River, prior to the formation of the Nickajack Reservoir and its subsequent flooding. The Tennessee River actually cut into a corner of Georgia, much as I-24 cuts into the state at Wildwood today.

But for expenses thought saved and rushed bureaucrats of days long gone by, this current water shortage crisis within the State of Georgia could have been avoided. Many a land title attorney and land surveyor can discuss the various merits of the currently established location of this corner. But, unfortunately for the citizens of the State of Georgia, the corner is where the corner is. Georgia is rightly entitled to those waters of the Tennessee River but not legally so. 



A contemporary diary: "...a rock about two feet high, four inches thick and fifteen inches broad...at the supposed corner of ...Georgia and Alabama..."



*The DML2000 Magnetic Locator
- designed to last a lifetime*

- Top Mounted-Protected Controls
- Separate Power/Volume & Sensitivity Controls
- All Weather Operation (-20 to 120° F) works great in Rain, Sleet or Snow
- Waterproof Sensors - 36"
- Includes: Carrying Case, Manual, & extra Batteries
- **SATISFACTION GUARANTEED OR YOUR MONEY BACK**
- **LIFETIME WARRANTY**

www.magneticlocator.com

Dunham & Morrow Inc.
43676 Trade Center Place, Suite 145
Dulles, VA 20166
703-661-2144