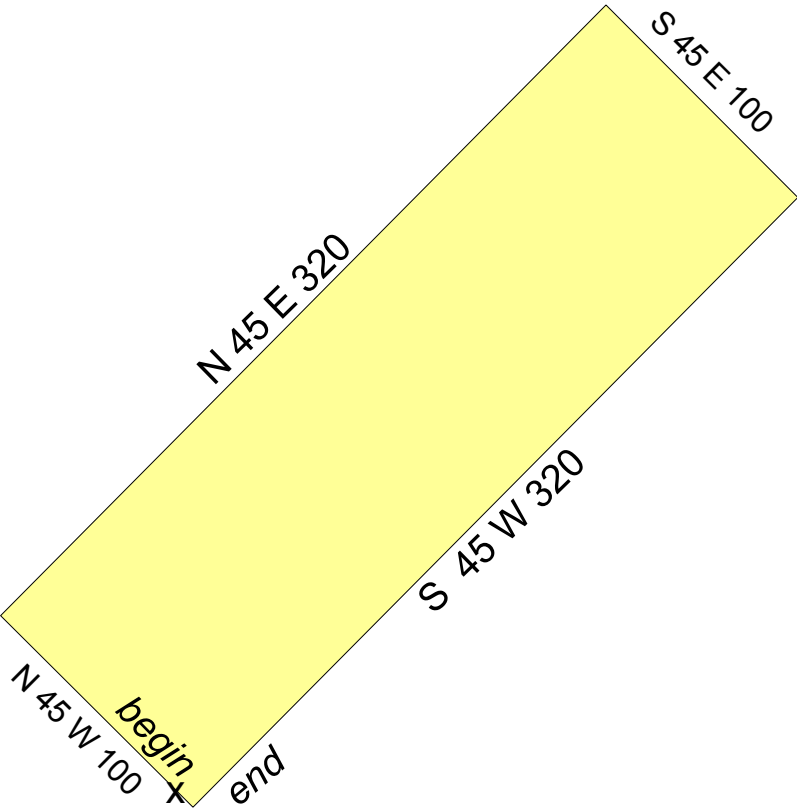


Unraveling the Mystery of "Outs" in Colonial Land Surveys with AI Assistance

By [Your Name], July 16, 2025, 06:12 AM EDT

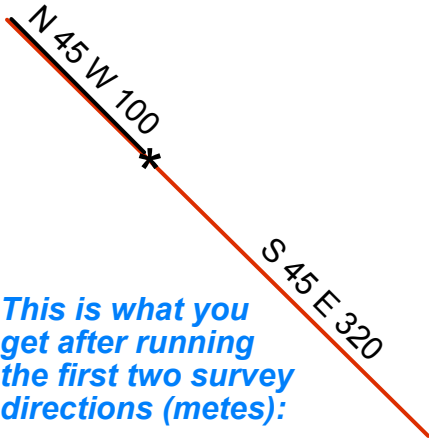
In exploring the genealogy of Cornelius Pierce, who held a patent near the Morattock River and Kahukee Branch and Mill Swamp in North Carolina in 1731, I encountered an intriguing challenge: interpreting the outdated term "outs" in a metes and bounds land description—"northward of the west 5 outs" to a tree and "eastward of the north 16 outs" to a tree. This archaic terminology, likely a variant of "outgoing lines" or a local measure, posed a puzzle that required bridging historical surveying practices with modern tools. With the aid of Grok 3, an AI developed by xAI, I successfully decoded this mystery and calculated a 200-acre parcel, offering a glimpse into colonial land division in this region. The journey began by recognizing that "outs" most plausibly referred to poles, a standard colonial unit of 16.5 feet, given its use in Pierce's era. The initial description suggested a northward boundary of 5 poles (82.5 feet) and an eastward boundary of 16 poles (264 feet), but these dimensions alone yielded a mere 0.5 acres—far short of a typical patent. Leveraging Grok 3's analytical capabilities, I hypothesized a rectangular plot, preserving the 5:16 ratio, and scaled the sides to meet the target of 200 acres (32,000 square poles, where 1 acre = 160 square poles). The AI helped derive a northward/southward length of 100 poles and an eastward/westward length of 320 poles, aligning with the proportional relationship. To refine the solution, I incorporated colonial-style bearings, opting for a 45° angle (e.g., N 45° W for the northward leg). This assumption stemmed from interpreting "northward of the west" as a northwest direction, where a 45° angle from due north toward west (N 45° W) reasonably represents a diagonal trend common in irregular colonial surveys. The AI supported this by allowing iterative adjustments, constructing a metes and bounds description: **beginning at a marked tree, running N 45° W 100 poles (with the first 5 poles as the "northward of the west 5 outs" segment), thence S 45° E 320 poles, S 45° W 100 poles, and N 45° E 320 poles back to the start.** This yielded the desired 200 acres, balancing historical context with mathematical precision, with the 45° angles slightly altering the shape into a parallelogram. This collaboration with AI not only solved the land area but also highlighted the power of technology in reviving obscure historical data. By blending Grok 3's computational prowess with my curiosity, we turned a cryptic colonial term into a clear picture of Pierce's 1731 holdings near the Morattock River and Kahukee Branch and Mill Swamp, offering a valuable tool for future genealogical and historical research.



The error is immediate

begin x
N 45 W 100
S 45 E 320
S 45 W 100
N 45 E 320 to 1st

This is what you get after running the first two survey directions (metes):



begin x
N 45 W 100
S [N] edit 45 E 320
S 45 W [E] edit 100
N [S]45 E [W] edit 320 to 1st

This is what I get after "tweaking" the directions:

