

Gravity—A Personal Encounter

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I got my start as a "professional" geologist (that is, paid for services) in a job with the Tennessee Division of Geology back in the summer of 1966. I had a brand-new B.A. degree and plans to start graduate school in the fall. Astonishingly enough, that first job was in Geophysics! I drove around the state with a Worden gravimeter, collecting raw data for a statewide gravity map (Johnson and Stearns, 1967). Because gravimeter readings are highly sensitive to both elevation and latitude, I always tried to set up the instrument at a U.S. Geological Survey (or Tennessee Valley Authority) benchmark. This often meant making readings (and making a spectacle of myself) in public places: Courthouse squares, major crossroads, in front of country stores in small Tennessee hamlets, and the like.

Unlike Texas, with its long history of interactions among the geologic profession, petroleum production, and big money, Tennessee never has had the importance of geology imprinted on the public mind. Or, if the discipline is thought of at all in Tennessee, the connotations are mainly negative, given that State's role in the Scopes Trial. Nonetheless, Texas and Tennessee share common traits among much of their rural populaces. These include suspicion regarding strangers, orneriness, and widespread senses of humor that might be described as somewhat perverse. Given these conditions, I enjoyed many "interesting" encounters with local folk, such as when I would pull up in front of a feed store at midday with the open gallery of the store occupied by an array of men seated on split bottom chairs or cola crates, whittling, chewing tobacco, and shooting the breeze. You can imagine the response from such a crowd when a stranger—a mere boy—would drive up and park in front of the store, get out of his car with a white can that looked like a lard stand, beat around in the kudzu until he located the bench mark, then remove from the can a shiny instrument that looked like a high-tech coffee percolator, put the device on an aluminum leveling dish, peer through an eyepiece, twist a knob, write a number in a little brown book, repack the device, get back in the car, and drive away.

Only you could never just "drive away". You would always be called upon to account for your actions, and at that age, I had yet to learn the art of "creative evasion". I mean, the truth was difficult to assimilate. "A gravity survey?" "For the State?" "Boy, what the hell you doing here?"

One such encounter stands out in my memory. An old gentleman accosted me from his seat high on a John Deere tractor while I was kneeling down, working the device at a benchmark near the intersection of two county roads. Turning the vernier dial, I was dreading the conversation that was fated to follow. When I had recorded the data and was securing the instrument, he hailed me and said, "What are you looking down in the ground for?" I replied, "I'm not looking down in the ground. I'm running a survey for the State. Uh, I'm measuring the gravity." He pondered that for the better part of a minute, and then opined, "I don't reckon you'll find any of that around here."

And I said, "Well, you've got a little of it everywhere." To that he replied with a truly inspired question: "Son, you ain't going to tax it are you?"

I've thought about that a lot since, especially how it would be when you got your end-of-year property tax, with a prorated surcharge for gravity usage. And what would happen if you were delinquent with your tax bill and they had to cut you off?

Reference

Johnson, R.W., Jr., and Stearns, R.G., 1967, Bouger gravity anomaly map of Tennessee: Tennessee Division of Geology (in cooperation with the Tennessee Valley Authority); contour interval = 5 milligals; scale = 1:500,000.