Editor's Corner

Going Places!

Welcome to the second issue of *The American Surveyor.* Response to our Charter Issue has been tremendous, resulting in more letters to the editor than we have room for in this issue! Thanks to all of you who took the time to write. I especially appreciated the letter from John Keating, mentor and former employer, who gave me my start in surveying back in 1963. Check out the letters in the FeedBack column beginning on page 74.

A Note on Titles

Many years ago, in order to deal with all of the various abbreviations used by professional land surveyors–PS, RS, PLS, RLS, RPS, RPLS–the NCEES adopted the term LS to denote Licensed Surveyor. For simplicity's sake we use the same policy in *The American Surveyor.*

Oklahoma!

I am pleased to introduce Deral Paulk, City Surveyor of Lawton, Oklahoma, who is the subject of this issue's ProFile column. It was a pleasure to meet Deral and the guys and to travel back to my home state. Lawton adjoins Fort Sill, home of the US Army Field Artillery School, where I trained in the late 60s. (That's Yours Truly in the photo, back in 1968, and that big honkin' instrument next to me was an early-day EDM–a Tellurometer, I think, which used microwaves.) Of course the military, with its unique naming conventions, referred to the instrument as a Distance Measuring, Electronic device (DME) instead of an EDM. The instrument weighed a ton, and because it was an early device the meters had to be properly nulled (lest you get a wrong answer), but it had built-in radio communication and was capable of providing very long distances.

I always admired the system we used back in those pre-computer days, full of checks and balances. Each crew had two computors (people), and we worked with log tables and forms. Each computor worked independently, and if our answers disagreed, we started over. Of course, it was always a race to see who could finish first, all the while knowing that if in your haste you made a mistake and came up wrong when the problem was re-calculated, you bought the beer. Taping was handled the same way: double-taped distances, and if they didn't agree within tolerance, we did them again. In spite of the military's tedious approach, it was very logical and ensured success. The work we did now seems primitive, but at the time, a T-2 with tight angle-turning specs and double-taped distances was as good as it got for Third-Order

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work. After leaving Fort Sill I never again saw a DME or the cool azimuth gyro on which we also trained.

New Series Begins

This issue marks the inauguration of a news series in *The American Surveyor.* Within the metes and bounds and the Public Land Survey System (PLSS) that exist in the US, there are wrinkles in what I call the marvelous "fabric of surveying" in America. The system set up by Thomas Jefferson is without parallel on our planet, and is held up as an example of logical planning. But the GLO had to accommodate people who were already living in many of the areas when the surveyors came through. Louisiana, for example, has a French influence, and as the GLO worked its way across the state it had to deal with the bona fide rights of existing land owners. Because of the curious river lots that ran radial to the rivers and bayous, some of the GLO plats contain hundreds of lots. Other states, like Texas, New Mexico, Arizona and California, were affected by Spanish or Mexican land grants. Our first installment has been written by Louisiana surveyor Tony Cavell. Tony's article provides a colorful and fascinating glimpse into the "French accent" that flavors Louisiana surveys.

The State of Surveying

A recent issue of *Surveying and Land Information Science* contained an article written by James Elithorp, the head of the surveying program at Troy State in Alabama. Elithorp writes about the student recruitment program at Troy State and examines the reasons behind the struggles so many degree programs are having in this country. Family, working for a surveying and mapping firm, and going to school at Troy State are the three most important reasons students listed as to why they picked geomatics at Troy State.

What also caught my eye were the questions posed to existing surveyors as to why they chose the profession in the first place. Number one on the list was working outdoors, followed by the potential for business ownership, and then meeting the needs of society. The lowest-ranked answer? "Work pays well." Also included was a choice for Other, populated by reasons such as enjoyment of surveying, challenging and interesting work, satisfying nature of boundary retracement, and use of high technology. Ranking equally low in the Other category was "math," and "high demand for surveyors."

A recent NCEES spreadsheet showed that there are around 47,000 licensed surveyors in the U.S. While that sounds like a reasonable number when spread out over 50 states, what is most alarming is that most of those licensed surveyors are between the ages of 40 and 60. There are not enough new licensees currently in line to replenish the supply of licensed surveyors. It is reasonable to assume that fewer surveyors will mean that the prices for their services will go up, but the remaining surveyors should have plenty of work.

Added to this is GIS, which, when coupled with a fantastic technology–GPS–will eventually allow *anyone* to repeatedly establish a position within the size of a quarter. Will this diminish the need to call a surveyor when boundary issues arise? As we know, the requirement for listing State Plane Coordinates on subdivision plats is relatively recent, so only the newer subdivisions will ever be affected by John Q doing his own surveying. And as Joel Leininger pointed out years ago, GIS will never eliminate property rights, nor will it eliminate the propensity of neighbors to fight over their common boundaries. Looking just "across the pond," it is somewhat sobering to think that England basically has one guy who handles the majority of the boundary disputes in that country (approximately 600 per year). Some feel that machine control poses another threat, but when examined carefully, only threatens the need to pound stakes into the ground. As with most complex technologies, surveyors will still be needed to ensure that the dozers are working in the right spot on a construction site.

Surveyors have been buffeted by the winds of technology, enabling us to do more work with less people. But technology also enables us to produce higher-quality products in less time, and therein lie the seeds of success for the modern surveyor. I'll never forget the first time we used CAD and a color plotter to color-code the easements on an ALTA survey. The attorneys were ecstatic because they had never seen this done, and because they are a group that closely examines our work product. Imagine the time spent by the attorneys tracing every easement line with their fingers, or even color-coding the easements on their own. The simple addition of color-coding on our part vastly increased their comfort level with the map. My point? As we all know, a happy client often returns for future work.

I know there are also horror stories out there about the use of CAD to completely draw maps when hand drafting would have been simpler and faster. But as we move farther and farther into the digital age, it will be difficult to withstand the demand for 100 percent digital output.

These issues and more will be addressed in *The American Surveyor.* Stay tuned! *AS*