



## NEWS & VIEWS

National Society of Professional Surveyors

### Response to Recent Article Entitled “*Land Surveyors Are Paying the Price of Progress*” by Stephen L. Carter, posted in *Bloomberg Opinion*, July 19, 2018

<https://www.bloomberg.com/view/articles/2018-07-19/land-surveys-follow-path-drawn-by-uber-airbnb-and-tech-startups>

Gary Kent/Curt Sumner

The public is damaged when their boundary lines are disrupted; the cost to litigate a boundary dispute runs into the tens of thousands of dollars and routinely exceeds \$100,000. This is ultimately why the surveying profession exists, and why Professional Surveyors are licensed in all 50 states.

Without the stewardship of Professional Surveyors, and the responsibility and authority they hold to determine and describe real property boundaries, the entire system of land tenure in the United States would literally break down because boundaries would become ambiguous and conflicted.

This imminent collapse is avoided by what is necessarily a combination of the Professional Surveyor’s expertise as to boundary locations, and the title industry’s business of insuring title. The insuring of title is one thing; however, the *location* of those insured title lines is an entirely different issue. Thousands of times every day, title companies (not to mention lenders, buyers, sellers, and owners) rely on Professional Surveyors to locate boundaries and produce maps that are not simply *precise*, but that are also *accurate*. Precision is nice – necessary in many cases – but accuracy is imperative.

Professional Surveyors routinely see examples of features that are very precisely located, yet in entirely the wrong location (i.e., inaccurate). For example, anyone can go to a location, and record a very precise latitude and longitude with their handheld GPS receiver – perhaps to the nearest inch. Yet, if they try later to navigate back to that exact same position using their recorded latitude and longitude, they will find themselves off by at least a few feet, if not a few meters. Why? If they do not know the answer to that, then they are achieving precision, but not accuracy.

Many will remember a few years back when a U.S. Hellfire missile struck the wrong building in the Middle East. Was that an imprecise strike? No – to the contrary – it was extremely precise; it went *exactly* where it was programmed to go. Unfortunately, it was programmed to hit the wrong building. It was very precise, but fatally inaccurate.

A few feet of inaccuracy is not too bad when hiking, but it is disastrous when locating a boundary corner - and fatal when firing a missile.

This is important because, contrary to popular perception, boundaries are most assuredly *not* a function of mathematics and geography. We all want our boundaries to be *precisely* located, but with *extremely* rare exception, boundary lines cannot be *accurately* – or, for that matter, *legally* - defined by GPS, by lines in a GIS, by latitudes and longitudes, or by coordinates.

Technology is a *tool* used to locate boundaries, but boundaries themselves are defined by a complex, centuries (literally) old body of common law rules as applied to *evidence* found both in records *and on the ground*. It is impossible to define a boundary line except by searching for and analyzing evidence found on the ground. Frequently, some of that evidence is a half mile or more away and buried two feet beneath the surface.

GPS, GIS, computer applications, laser scanners, and even drones are tools that Professional Surveyors use to precisely locate features on the earth. Adapting to those technologies was, and to some extent continues to be, tremendously disrupting to a profession whose available technology was fairly static for several hundred years. However, Professional Surveyors have adapted to – and adopted – those technologies as applications are developed that generate high precision while providing for significant time savings.

But when virtually anyone can make precise measurements, the difference between precision and accuracy is more important than ever before.

To summarize, the Professional Surveyor's duties and responsibilities are to help ensure the integrity of the "American Dream" of real property ownership.

They are the only persons competent and qualified - both under the law (examination and licensure) and by experience and education - to locate property boundaries on the ground, and to map and certify those locations to owners, lenders, title companies and other parties interested in - or with an interest in – real property.

While technologies exist to create precise maps and measurements, people should not be lulled into a false sense of confidence. Precision without accuracy is a snare and a delusion.

Contrary to the statement in the referenced/linked article, "*but I can confidently predict that the market for surveyors will eventually be disrupted. The major disruption will come when the big banks move. When those who finance big projects and big houses decide that a report that relies on GPS mapping is sufficient to mark the metes and bounds of a property, the rising tide of demand will swamp local regulatory resistance*", when protecting property rights, it is unlikely that land owners will be accepting of the concept that "Close is good enough".