

# GPS Technology.

## Great If You Can Find It.

I was raised in rural Kansas and the view to the west of the house where I grew up is the same today as it was over 40 years ago. Say what you will about life in these parts<sup>1</sup>, but Kansas does have some of the best sunsets on the planet. Kansas also has hundreds (really) of tornadoes each year, relentless winds that cause 50 degree temperature swings during the afternoon and many examples of the geological formation known to scientists as “Super Phlat”. I currently live in Nebraska which differs from Kansas in spelling.

But for those of us who grew up and live in America's high plains, distance is a relative thing. We talk about travel in terms of “tanks” rather than miles. And getting lost in western Nebraska isn't anything like losing your way in the big city<sup>2</sup>. Getting lost in, say, Chicago is no big deal once you establish that Lake Michigan is *east* of you and that *all* highways are either under construction or a toll road. Plus, it's fun to ask big city folks for directions and soak up true urban culture and atmosphere – which contains lethal levels of benzene. Conversations with the locals in western Nebraska can be far less stimulating or helpful.

**Lost Tourist:** Excuse me, I can't find the main road to the interstate. Can you help?

**Western Nebraska Local:** Moo.

Ah, but today there's a tool to help navigate through new territory to insure you never get lost – either while driving, biking, running or finding your way out of a Wal-Mart. Of course, you're going to need enough AAA batteries to light up Las Vegas. Yes, it's time you joined the rest of the aimlessly wandering masses and purchased a GPS, or: Global Positioning Something-something.

I know the “S” stands for *satellite* and that wraps up my complete knowledge of space, the final frontier. Fortunately, I have a long-time friend, Darren, who is an aerospace engineer in Boulder, CO. His job is to track the orbital trajectory of satellites his company shoots up into the sky so that my daughter can get quality cellphone reception at the mall. He's very good at explaining very complicated things to me, at my level of understanding, provided he's had about a dozen beers.

As I understand it, several satellites are working in harmony to keep track of my progress because they're clearly bored with watching for things like enemy troop movements or the whereabouts of Osama “where you” Bin Laden.

**Satellite #1:** (to satellite #'s 2 & 3 with much emotion) Are you guys watching this? He's running south at 6.8 mph and may soon turn in *another direction!!* What do you guys see? Guys? Guys! Hey, knock it off!!

**Satellites #2 & #3:** (Disengaging from a deep satellite kiss and wiping off oil stains). Oh, sorry. Yes, he's running along isn't he?

But here's the thing: I love my Garmin 101 wrist-bound GPS device.

<sup>1</sup> Rural talk meaning “location”

<sup>2</sup> Again, rural talk for anything with a McDonald's. Wal-Mart, for example, is a big city.

Why? Because I'm a slave to the clock. I know some of you really and truly don't care how far you've run or how fast you're going. For you, it's the simple joy of motion that keeps you running, no need for details to spoil the experience. Not me. In fact, if you were to take a stroll around our neighborhood you'd find what appear to be random blotches of red spray paint on the pavement. Random? Hardly. Before the GPS, I actually marked off 400 meter segments from our driveway throughout several running routes in south Lincoln. There I was – usually with my daughter, Greta, along to keep the suspicion low - “wheeling” off courses and periodically (every quarter mile to be exact) stopping to make another red blotch. Extreme? Perhaps, but I also know there are several of you nodding your head thinking, “red's a good color, but black spray paint holds longer”. Aren't you?

Those days of vandalism are gone now that I have a GPS and I can monitor my progress constantly – literally. But, of course, nothing is perfect and after a month of “GPS running” I've been able to make a list of “GPS Pro's and Con's” that might help you make an informed purchasing experience or simply confirm that with regards to technology, I'm a true idiot.

### **GPS Pro's**

- Constantly aware of your pace so that during a marathon with a 5:30 cut-off you can determine if you'll make the cut-off or start an early lunch at the “Hooter's Mile 14 Aid Station”.
- Great for those small trail marathons in places like Wyoming where you can find yourself alone and unsure of your direction. Also, this will help game wardens accurately determine where you encountered Mr. Grizzly.
- With pinpoint accuracy, you can watch your overall pace plummet *in real time* when you realize you had the GPS set on “metric”.

### **GPS Con's**

- While the GPS scores high in functionality, it's about as stylish as wearing a toaster oven.
- Just like a cell phone, you need good satellite reception which eliminates training runs along the Afghan/Pakistani border.
- While extremely accurate, even the best GPS can't measure how far you've wandered from “Coolsville” when you explain, “I began at N075.983'334 W18.559'234 and traveled WNW with a semi-modulating pace of 9.5476 nautical miles/minutes based on the Greenwich-mean time polar “swing” with an angulation factor of 5.07 (a new record for a WNW-bound traverse during a falling barometric episode!) and would have more information regarding the distance adjusted for the latitudinal tidal pressures that can effect pace by as much as .00487% on clear nights but my &#%\$@ batteries died....can you believe that crap?”

In conclusion, I've discovered that a GPS is as valuable as your need to know where you are and where you're going. And while I don't consider myself to be an expert on the science of satellite trajectory, I can probably help with the basics. If you need me, I'll be at the Hooter's Mile 14 Aid Station.