

*Turbo Techno Track:*  
Using GPS for Long Distance Training in Track  
Part 1: The First Month

An Exclusive Series for [www.CompleteTrackAndField.Com](http://www.CompleteTrackAndField.Com)

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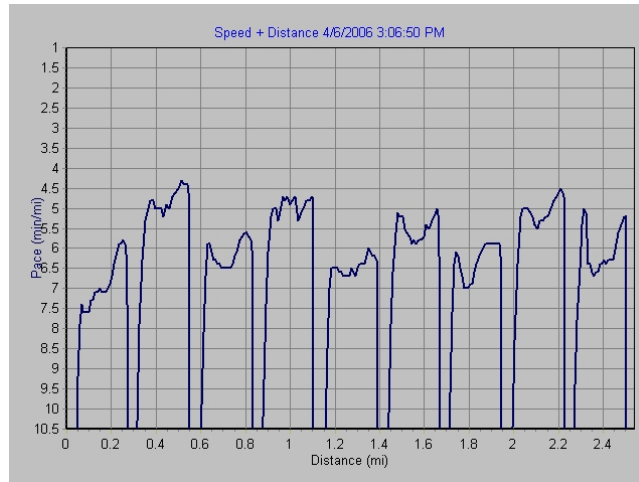
Many of you may have read my journal of the events that took place during my XC season, as I used the GPS watches to measure speeds, intensities, and even courses for future evaluation & planning for next season. I recently accepted the post of assistant track coach, to be in charge of long distance races, so I am once again chronicling the use of this technology into our season. Except now, you'll get it in "24" TV show style: a part by part analysis and discussion on how it's been used, as the fury of the season unravels upon the athletes.

As the long distance coach, my track season has been going for almost a month now, but due to weather-related issues in northwest Minnesota, I haven't been able to have a pure quality speed workout with my long distance kids. I tried having a 400m day on the road, but it was a very busy road by the time we got going in our workouts, and it only amounted to just a few repeats. Due to my business work as a fitness & performance trainer, I only have so much time with the athletes each day before I go back & return to work. So, needless to say I had a very short speed day.

Well, last week it finally warmed up outside and we were able to get out for some 400m runs on the track. I was just itching to get the GPS monitor going on this session, as it would be the first time all season that we'd be able to use this as our pacing tool & measuring stick.

You may wonder "Why use it as a pacing tool? Doesn't a stopwatch tell you that?" Well, yes and no. Stopwatches are great for taking splits, but do they really tell you what happens with a stiff wind that your runners are facing on a 20mph day for a good 200m on the track during each repeat? How do your runners handle that with a full 400m series of repeats? Your watch only tells you their time, the GPS watch's monitoring system tells you the speeds & paces that the runners undergo for just about every meter of the distance they cover.

Here's a picture to show you more of what I mean:



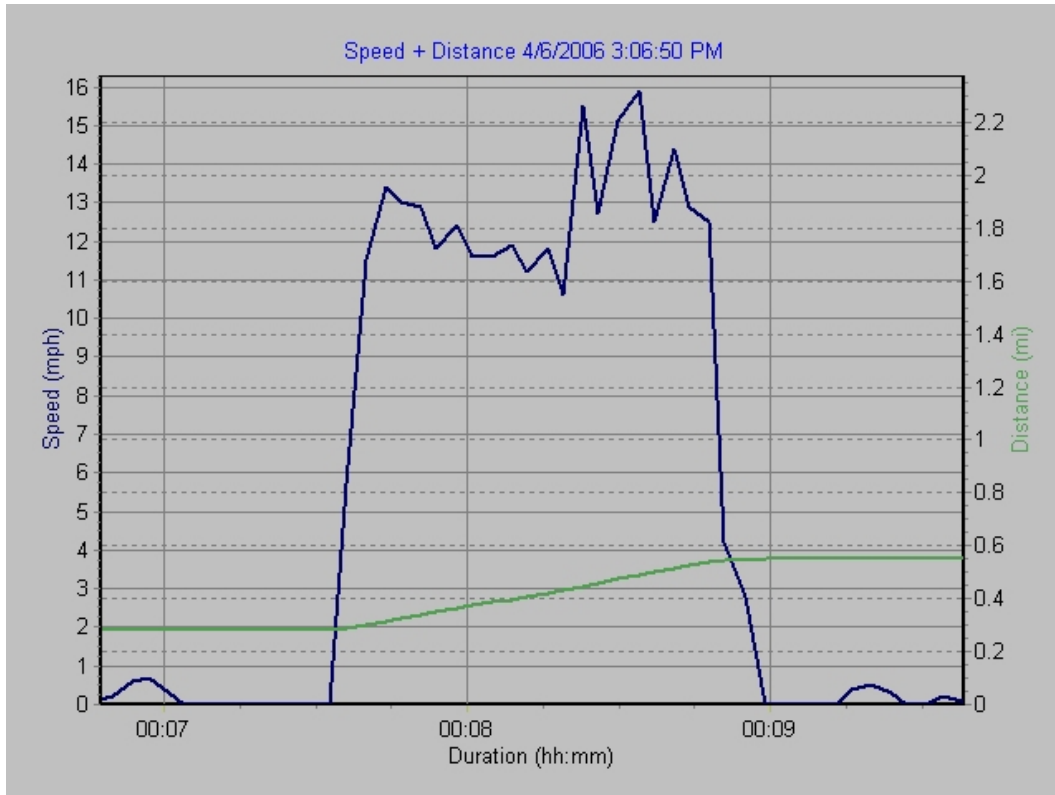
The first section is the warm-up lap that we did once we got out there. The 2<sup>nd</sup> section is the first boy's 400m, while the girls is the 3<sup>rd</sup> section. It follows in the format of boys/girls throughout the rest of it.

As you can see, the paces pick up right away. Then, they dip off as they enter the wind, and then return upwards again, trying to regain the speed they lost in the wind, once they have their backs to it.

The 2<sup>nd</sup> repeat of the boys (around the 1 mile distance on the graph) actually showed that they kept a real good pace for the windy portion of that run. Their 3<sup>rd</sup> 400, however, showed how much they dropped off once the wind hit them again. They stayed strong for the last one, which almost resembles their first 400's graphing.

How did I measure this with each squad? Well, I simply ran with them. I tried to stay in the mid-pack of each group to get an average readout for each squad. This way I could also coach them on the fly during the windy portions and the turns when the wind could carry them.

Here's a blown-up picture of just the first 400m, to show you how useful this software can be in figuring out even the speeds they travel at over the course of it, and how much it can vary with a wind affecting the run:



The speeds are in miles per hour, and you can see how much a wind affects your acceleration and deceleration in just one repeat alone. Notice how it increases to about 13, then dips to 12, back up slightly to 12.5, then scatters its way down to under 11mph. Then a surge hits them with the wind to their back, and it climbs up past 15mph, even reaching up to 16mph towards the final kick. A final coasting occurs at 14mph, with the run ending shortly after.

So, the main thing I take from this is how the runners are affected with high wind days, and how they need to conserve their energy better by getting into a smooth rhythm and focusing on steadiness while into the wind. They can stop the up & down nature of fighting the wind, and save a good portion of energy for when the wind helps them out. Can a stopwatch tell you all that? Just think about that...

Future reports will be made on the progress & use of this system as the season continues on. I mainly plan to record the speed workouts on the track, since our runs on the roads aren't as crucial to decipher as our speed workouts need to be. This is just one more tool to have in your toolbox if you effectively want to evaluate progress and results with your runners. One day I also plan to have the sprints coach use this system with his kids and see what it tells us.

I call my group of runners the "Mile Militia", as we go to war in the half-mile, the mile, 2 mile, and 4x800. I've been wearing my camouflage pants to drive home this mindset on speed days. I got them first for my fitness boot camps as my workout gear for that, and they have fit in well with the track practices, too. They need to know that we're "going to war" against wind, gravity, and the competition in every race. So, we need to run like true warriors to prepare well. Using the GPS systems is just part of my own preparation to get these kids ready. So far, we are battling quite well even without its usage. The true test will come up at our first home meet in less than 2 weeks.

Until then: Run Smart & Run Strong!

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