

## Re: GPSR for bicycling?

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Ken Stagg wrote:

- > *I've been searching the archives and reading what I can find on the web*
- > *but I'm still hoping for more advice. I'm looking for a GPS receiver to*
- > *use mostly while on the bike, though I'll be doing some hiking with it*
- > *and maybe use it when travelling. I have no experience with GPS.*
- >
- > *I only ride on the road so it doesn't need to be as rugged as something*
- > *that I'd be dropping of a cliff. It won't – at least until it has proven*
- > *itself – be replacing my current bike computer. If it proves itself it*
- > *might replace my computer but it would most likely be positioned as a*
- > *computer for the stoker's position on the tandem.*

I've been using a GPS receiver (first a GPS12, followed by an eMap) to replace my bicycle computer for the last 5 years. If your tandem is the normal type then I'd expect the stoker's position to be a rather poor one for GPS reception. The human body is a very effective absorber of the GPS signals and mounting the unit on the stoker's bars on most tandems would result in much of the sky being blocked.

One solution is to use an external antenna which can be mounted in a better location. When I want particularly accurate tracklogs I use such an antenna with my eMap and attach it to the top of my helmet with Velcro. Unfortunately most receivers don't accept external antennas directly, but you could always use a re-radiating model such as those from pc-mobile. A properly mounted external antenna will also greatly improve reception under overhead foliage.

I want to use it to

- > *help build cue sheets for rides, mostly club rides, that I do that are*
- > *led by others as well as building accurate cue sheets that I'll use when*
- > *leading rides.*

I use the tracklog from my eMap together with the GARTrip program ([www.gartrip.de](http://www.gartrip.de)) to determine the mileages to put on route sheets for others to follow.

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I'd also like to be able to build elevation profiles for  
> *rides*.

GarTrip is also good for displaying elevation profiles. An example of the same route done twice last year to check for consistency is shown at:

<http://home.comcast.net/~prathman/Image33.gif>

Note that this was created with the eMap receiver using the GPS-determined altitude since this unit does not have a barometric altimeter.

In the future I'd expect to use when touring (hotel to hotel so  
> *recharging batteries shouldn't be a problem*) – *for navigation and POI*  
> *duties*.

The map and POI functions of MetroGuide-USA have been very useful in my touring in the US when needing to reroute due to detours, etc. or when finding restaurants, grocery stores, motels/campgrounds, etc. Unfortunately bike shops are not included but it does allow you to find street addresses. So we look for a payphone with a telephone book and get the address of any desired business and then enter that into the eMap.

I'd like to be able to get as much of the information that I'll  
> *need as possible from tracks rather than waypoints*.  
>  
> *The first unit that caught my eye was the Garmin Etrex Vista – and it's*  
> *still very much in the running. ...*  
>  
> *The Magellan Sportrak Pro also sounds like a nice unit ...*  
>  
> *The Lowrance H2O looks even more promising in many ways. ...*

Although it's somewhat higher priced, you may want to check out the 60c/cs. High resolution color screen makes it more readable, it supports a directly connected external antenna, and it has sufficient built-in memory for an extended tour. But I'd expect any of the units you mention to perform quite well. The Magellan Meridian Gold is just a little bigger than the SporTrak and allows for expandable memory and writing/reading of tracklogs on the memory card.

>  
> *One concern I have with the Garmin and Magellan units is number of points*  
> *in a track. How often is a point recorded?*

Most units let you specify this either by distance (e.g. a point every 0.1 mile), time (e.g. every 5 minutes), or auto. In 'auto' mode the unit checks how predictable your path is and puts in more points when you have many turns or are accelerating/decelerating. This mode is usually best since it records points where you need them the most and doesn't waste them on long straight stretches of road. On my eMap recording in auto mode the 2000-point tracklog is usually enough for about a 100 mile ride. For longer rides I need to save the tracklog to

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one of 10 saved tracks but unfortunately these are somewhat lower resolution and lack timestamps to determine speed along the way.

More often would be nice

- > *from the standpoint of granularity but I don't know if a 200k ride would*
- > *then exhaust the receiver's capacity. The Lowrance looks to have many*
- > *more trackpoints available at any one time, plus being able to load*
- > *tracks off to a memory card.*
- >
- > *Any suggestions/guidance would be appreciated – particularly by those who*
- > *have used GPS on a road bike!*
- >
- > *Thanks,*
- > *–Ken*