

Navigating Between the Ditches

by Doug Adomatis

Here are some tips on how you can make your handheld GPS and laptop computer a car navigation system that is as safe as the more expensive built-in systems.

Recently, the [National Highway Traffic Safety Administration](#) reported that in-car technology like cell phones, mobile Internet access devices, route guidance and navigation systems are dangerous driver distractions that cause accidents. In practicality, anything that compels the driver to take his hands off the steering wheel or eyes off the road can be a dangerous distraction.

GPS route guidance and navigation systems rank high on the list of dangerous driver distractions because of the number of systems in use and the attention required by the driver to operate them.

Distractions include:

- Hard-to-read display screens
- Inconvenient controls
- Tangled cables
- Loose equipment

High-end car navigation systems include features designed to reduce driver distraction. Systems like those from [Alpine](#), [Eclipse](#), [Pioneer](#) and [Phillips Carin \(VDO Dayton\)](#) are built-in to the vehicle, eliminating clutter while locating the components in the most convenient location. Most all manufactures of the built-in systems have models with large (5”), high contrast display screens. The Eclipse Commander model does not use a display and it can be operated completely by voice command. Others use a wireless remote for controlling the display or entering information. Most systems feature voice prompting to audibly guide you, but Carin and Eclipse models integrate with the vehicle’s sound system to momentarily lower the volume of music so you can hear navigation instructions.

These built-in systems are nice, but they can be rather expensive. Alternatively, a handheld GPS unit connected to lap top computer, makes for a full featured mobile route guidance and navigation system – at a price more people can afford. However, this hybrid of interconnected components can be a dangerous for many of the reasons listed above.

Footnote:

¹ Statement of L. Robert Shelton, Executive Director of the NHTSA, before a subcommittee of the House of Representatives – 9 May 2001.
(<http://www.nhtsa.dot.gov/nhtsa/announce/testimony/distractiontestimony.html>)

Here are some tips for making your hybrid system as safe as the built-in ones:

- Don't use a laptop display screen while driving.
Laptop display screens are difficult to read during the day and are not easily placed in the normal view of the driver.
- Use a program that utilizes voice recognition and synthesis.
Tab- or menu-driven software requires too much attention from driving. One example of car navigation software that uses voice prompting, is Delorme Street Atlas[®] USA 2003², which works well for getting around on city streets and primary roads in the United States.
- Use a headset with integrated microphone.
Some states allow you to use headsets that have only one ear speaker. The integrated microphone on the headset will work better than the laptop's microphone. You will have better results if you "train" voice command software in the car with the same microphone that you will be using on the road. Where the use of headsets are prohibited, you can...
- Integrate the laptop's audio with the vehicle's audio system.
Alternatively, or in addition to, a headset you can amplify the voice commands coming from the laptop by using an auxiliary input or cassette tape adaptor to your car's audio system. There are other devices you can use to broadcast the signal on a radio frequency. For more info consult a car-audio specialist.
- Use an external antenna.
GPS receivers with a build-in antenna must be located in view of the satellites above, and while small enough to be placed on the dash, they may obscure the driver's view and slide around if not secured.
- Secure cables.
Cabling between the laptop, GPS receiver, and power supply, can get in the way of driving functions. Use removable cable ties and the right cables. Check the [Travel by GPS Resource Page \(http://www.travelbygps.com/gps.htm\)](http://www.travelbygps.com/gps.htm) for suppliers of cables and accessories.

- Don't be Dead -

Don't kill yourself or someone else by goofing around with your GPS while driving. It's always best to let someone else do the navigating or at least pull off the road in a safe place when you need to refer to a map or otherwise take your attention away from driving. Be safe - keep your eyes on road.

Footnote:

² Visit the Delorme web site for more information about Street Atlas USA 2003 <http://www.delorme.com/streetatlas2003/default.asp> and check for discount prices on Street Atlas USA 2003 at Amazon.com: <http://www.amazon.com/exec/obidos/ASIN/B00006D2P9/gpsmaps-20>

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