AvMap G5 Personal Navigator

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At first glance, the AvMap Geosat5 (G5) looks like the other GPS navigators that you see advertised everywhere. What makes the AvMap G5 special is that it's designed to work with Kenwood's APRS-ready radios, including the TM-D710A also reviewed this month. It provides GPS location information for your transmitted APRS beacons, and it shows received APRS information on its map display.

The G5 replaces and improves upon AvMap's G4T. It uses a colorful 5 inch LCD touch screen. The built-in SiRF III GPS receiver has 20 channels. Tele Atlas street maps for North America are included on a 2 GB SD memory card.

Connection to the TM-D710A is through a serial port normally used for an external TMC receiver (Traffic Message Channel, for traffic and weather data from consumer FM radios). Other connections include an audio/video input, an audio output (there is an internal speaker), an infrared sensor and a USB port. There's also a port for their external hockey puck type GPS antenna, but I found that the internal antenna worked just fine under the windshield.

The G5 is about the same size as the earlier G4T and the connections on the rear panel are the same, so I was able to unhook the G4T and attach the G5 in its place. The package comes with a healthy, adjustable on-glass mount and a cigarette lighter plug for power and charging the internal battery. The supplied interface cable plugs into the TM-D710A control head. Perform a little menu-driven setup on both units and you're ready to go.

Using the G5

I've used a G4T for a while and find the G5's controls to be a distinct improvement. The G4T comes with an infrared remote control for navigating the menus. That's been replaced by touch screen controls in the G5, which I find easier to use. The G5's display is bright, crisp and easy to read, and brightness adjusts automatically depending on lighting conditions. You can switch between 2D and 3D display modes.

In addition to the map, an information line shows your location in words — down to the number on the street. As you drive by houses, you can see the numbers change. Zoom controls are on screen touch buttons.

Figure 2 — The G5's map shows APRS station data received from the Kenwood TM-D710A near the center of the display. The blue area near the bottom of the screen is for location and driving directions when the vehicle is in motion.

Boxes showing time, date, speed, altitude, estimated time of arrival and other parameters float along the map's left side and can be hidden in an instant by touching an on-screen button near them. The G4T has five such boxes, but the G5 has only three (you pick the parameters you want to see).

APRS with the G5

The G5 sends your position data to the radio over the interface cable, and the radio uses that information in your position beacons. On receive, the 'D710A sends APRS data to the G5. The unit can store up to 1000 "APRS Contacts" and display them on the map.

Static positions are represented by blue bulls-eye icons along with the associated call sign. Moving positions are represented by red triangles and associated call sign. While this is fine for a standalone mobile APRS display, it is not as robust as some of the APRS applications designed for personal computers and larger screens. Position icons remain on the display until the contact list overflows or you manually remove them. So, while moving positions are identified and refreshed, there is no way to automatically drop aged positions.

A "tactical" mode uses the 'D710A's proprietary data feed and the latest G5 software. Tactical mode allows you to select an APRS contact to see its speed, course and altitude in addition to its call sign and position. You can also acquire a route from your position to the target APRS contact.

My G5 came with an older version of software, so I performed an update using drivers and the latest software from AvMap's Web site. The drivers allow *Windows* to recognize the G5 when it is plugged into a USB port. The entire process took just a few minutes and went smoothly. User settings are lost during the update and need to be re-entered — no big deal, but I didn't see it mentioned.

"It's a great standalone Navigator first..."

While hams naturally focus on the APRS features, the G5 was designed for the personal navigation marketplace. It offers turn-by-turn driving directions and options such as fastest or shortest route. A line at the bottom of the display spells out your current location, and another tells you the street to take at the next maneuver. Next to that, a graphic depicts the maneuver with arrows and shows the distance to that maneuver. Voice prompts are available in 14 languages. While the information lines take real estate from the map display, they provide precise information that is less discernable from the map in many instances. This is a valuable improvement over the G4T.

The G5 includes points of interest (POIs) that show up as icons on the map. For APRS, the only icons I want to see on the map are received APRS station positions, so I turn off all of the POIs. A problem I experienced with the G4T hasn't been cured with the G5. Some travel layer POIs remain after they are turned off. According to AvMap, this problem is being addressed by the designers and will be resolved in a future downloadable firmware release to be available at no cost.

I found the G5 to be a worthy successor to the G4T, with noticeable refinements in operation. If you're looking for a plug-and-play mobile APRS solution, give the G5 and a compatible Kenwood radio a close look.

Manufacturer: AvMap s.r.i. Carrara, Italy, **www.avmap.it**. US distributor, AvMap/USA, 133 Falmouth Rd, Mashpee, MA 02649. Amateur Radio contact: Don Arnold, W6GPS, 410 Cyndica Dr, Chattanooga, TN 37441; e-mail **info@geosat.us**; **www.geosat.us**. Price: $650, external antenna, $149.

Bottom Line

The AvMap G5 is an attractive, feature-rich personal navigator that's customized with Amateur Radio features. Integration with Kenwood's APRS transceivers is quick and easy.