

Configuring Hardware for the United States National Grid

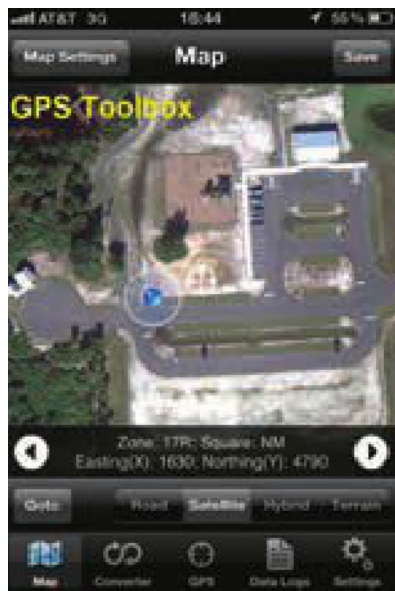
By Al Studt, Lieutenant, Canaveral Fire Rescue; Scott Chappell, Lieutenant, Marion County Fire Rescue and Bruce Scott, Captain, Jacksonville Fire Rescue

In our two previous articles we have provided an overview of the USNG and some examples of operational use. In this article we will discuss use of the USNG with your GPS and/or smart phone.

The FFCA Statewide Emergency Response Plan (SERP), Appendix I describes the USNG and its intended use in Florida on a single page. Regarding GPS receiver set up there are two settings of importance: datum and coordinate system. Don't worry you won't need to know much about datum (it's just a GIS reference point on the globe), just follow these directions. The first choice of datum is 'NAD83' and the second choice is 'WGS84'. The coordinate system to select is USNG, and if not found select the Military Grid Reference System (MGRS).

Moving to smartphone applications, which ones are proven performers? In general, search your "app store" for MGRS and/or USNG. The following are examples of apps for the iPhone which can be put to use in seconds, including screen shots of each:

milGPS: In large font, provides the user this basic information: where am I right now? It can be adjusted for the number of digits displayed, from 4, 6, 8 or 10. Displaying 8 or 6 digits is standard. The location can be quickly captured to the buffer and then sent via text message to any recipient or group.



able to display a coordinate provided on a map.

ArcGIS: Shows grid lines on a map with present position. Users can add

different base maps and other layers. If you create an account and login from a computer you can save your own mix of maps for others to use.

Other applications exist, and more will come on line in the future. One which replicates all the functions of a typical handheld GPS receiver and more is Motion-X.

The Android and other operating systems also have many applications (including some similar to the above) which display USNG/MGRS.

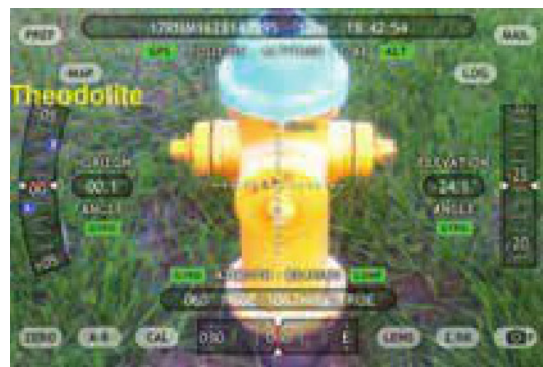
Scenarios in which apps could be used are widely varied but could include the following:

During a wildland fire, a brush truck in the unburned area breaks down. To quickly advise Command of their specific location, the crew uses milGPS. Command records the coordinate and enters it into GPS Toolbox to see the exact location of the disabled vehicle and crew.

A tornado touches down in a suburban area. The local fire chief uses Theodolite to take photos of the damage and emails them to the county EOC when requesting more resources. The county emergency management team evaluates the damage and with the chief's assessment, asks the state warning point for two US&R task forces. Those same photos are sent to the responding US&R task forces who use them to create 100 meter USNG grid maps of the area while teams are assembling.

Finally, USNG also supports routine daily operations. Fire inspectors performing their duties or engine companies conducting pre-plan inspections can record the USNG coordinates of hazards, electrical disconnects, fire risers, or critical lift stations that may need to be located at a later date. With your existing smartphone or GPS receiver, Florida's preferred coordinate system can be in the palm of your hand, 24/7.

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