

Pat Piper

The ERROR OF OUR WAYS

READING A WAYPOINT MOVES TOWARD A SINGLE STANDARD

A story about how to read a waypoint over a VHF in the July 2010 BoatU.S. Trailing was in error and resulted in more than 100 phone calls and e-mails to us with corrections. But because many of the “corrections” disagreed with each other, we decided to go into the issue a little deeper, and offer a “corrected” version of how to read a waypoint

The story centered on the waypoints at the Number 1 buoy just offshore of Rudee Inlet, Virginia:

N 36° 49' 842"
W 75° 57' 741"

And here's the way a number of readers insisted the above should be read over a VHF:

“36 degrees 49 minutes, 50 seconds North and 75 degrees 57 minutes 44 seconds West.”

— or —

“36 degrees 49 decimal 842 minutes North latitude
75 degrees 57 decimal 741 minutes West longitude”

— or —

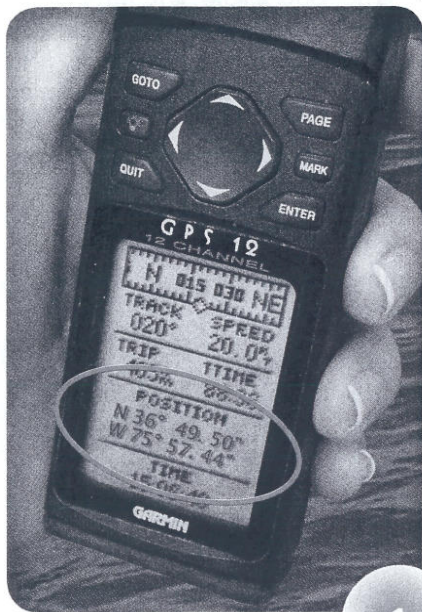
“Latitude three-six decimal eight-three-zero-seven degrees longitude

seven-five decimal nine-six-two-three-five degrees.”

Why all these variations? It's because waypoints use three different formats on a GPS.

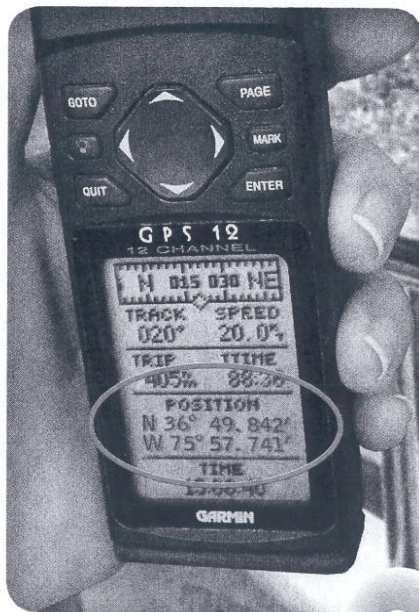
In fact, a waypoint on your GPS may be shown (using only the latitude in the example above) one of these three ways:

- (1) degrees, minutes, seconds:
N 36 49 50
- (2) degrees, minutes, decimal minutes also used as decimal thousandths:
N 36° 49'.842
(or decimal hundredths (.84)
or decimal tenths .8)
- (3) degrees, decimal:
N 36.8307



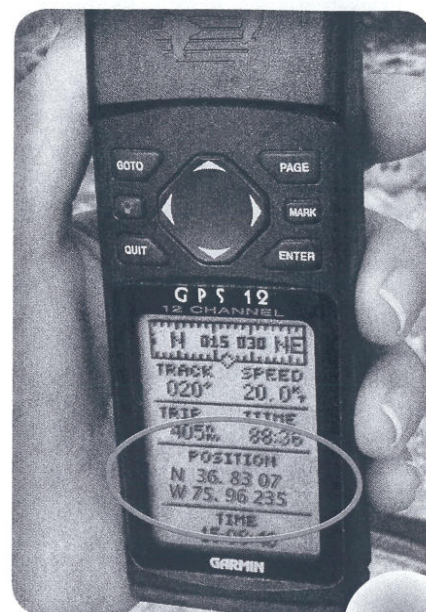
Degrees, minutes, seconds

1



Degrees, minutes, decimal thousandths

2



Degrees, decimal

3

All are correct and a GPS can be set to read the owner's preference. "There is no standard," says Greg DeVries, Director of Marine Sales for Garmin, a leading manufacturer of GPS marine units. "Add to this that many boaters will simply plug in the waypoints for a destination and follow the course to that destination while watching the miles yet to travel and the estimated arrival time, and they'll never even look at the waypoints on the screen. So when you need to tell someone where you are, it can become confusing."

Ham Gale of TowBoatU.S., Annapolis has experienced this firsthand. "I received a cell phone call from a boater who needed assistance," Gale remembers, "so I asked him to

give me his location from his GPS. He gave me two numbers which made no sense to me and I asked him to repeat, thinking I hadn't heard him correctly. That's when he asked, 'You mean I gotta read them all?' I found him, once he read the waypoints the way they were presented and safely got him back to his marina."

The United States Coast Guard Auxiliary is well aware of the confusing environment facing a GPS newcomer. Bob Whyland, a Trailing Club member who teaches classes for Flotilla 053 14-04 in Hanover, Pennsylvania (and who was quick to respond to the error in the article), says the problem becomes all the more confounding when a boater in need of assistance announces the waypoints using one

format and another boater who can provide assistance is using a different format.

"The problem with the use of the three systems comes when the person having to plot or enter the location of the reading is not familiar with the fact that there may be three ways it can be given to them," he says. "The person who is first to hear the call for help and who does not understand more than one system can waste a lot of time trying to get the information into their machine in an attempt to locate the unit in distress and lend assistance. On most machines, it is not easy to quickly make the change (On Google maps, try changing this around to see what happens and how long it takes you to figure it out the

