

USING WAYPOINTS CAN BE DANGEROUS!

By J A Rogers



It is very common now to see waypoints (the newfashioned word for longitude and latitude) being promoted for popular cruising destinations. But just as longitude and latitude readings are worthless in the real world if the charts they are obtained from are not correct, waypoints are not absolute either. In fact, waypoints alone can be down right dangerous without copies of the charts they came from to navigate with.

The newest nautical charts are published with data collected according to the World Geodetic System 1984. And most of the GPS units that are sold today are set by the manufacturer to that system. So mariners navigating in the continental US and Canada are fairly safe using waypoints without having to worry about the type of chart datum they were taken from. But if you own a GPS and have taken note of the system your unit is set on, you will have also noticed that there are over 100 different map datum systems to choose from.

Chart data systems that are used on US government charts that are currently being sold for navigation in the Bahamas, the Caribbean and Central America include: World Geodetic System 1984, World Geodetic System 1972, Puerto Rico Datum, North American Datum 1927, North

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American Datum 1983 and others. All of them are different and errors will result if waypoints are not coordinated with them. If you enter a waypoint from one system while the GPS is set on another, you can end up in big trouble!

While island hopping through the Bahamas recently and referring to various charts and guide books. I entered waypoints into my GPS memory that I had taken off a chart of Eleuthera (US DMA 26305) while the GPS was set on another datum system. When I was ready to navigate with the Eleuthera chart, I noticed the datum was different and reset the GPS. I foolishly assumed the waypoints would all remain just as I had entered them. But after missing my mark when approaching Governor's Harbor by a quarter mile, I rechecked the waypoints I had entered and discovered they had all changed when I changed the chart datum setting.

When entering any waypoint into a GPS, it is mandatory that you know the chart datum system from which the waypoint was taken and first set your GPS to that system before recording the waypoint. Then when using the waypoint to navigate, you must have a copy of that chart and make sure your GPS is set to its particular datum system in order to correctly plot your position or else the waypoint will be an accident waiting to happen.

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Chart datum systems are printed on every chart, usually near the main title and underneath the type of mapping system that is used (i.e. Mercator Projection etc.). The best policy is to take your own waypoints off your own charts.

Happy Cruising!

