MAP DATUMS and COORDINATE SYSTEMS

When using GPS in conjunction with maps and/or in coordination with other GPS/map users, you should all be "on the same page". Errors will occur if your GPS's selected datum does not match the map's datum or does not match the datum on the other GPS receivers. Also be aware that some GPS receivers will automatically switch to the appropriate default datum (usually WGS84) whenever coordinate systems are changed.

Common U.S.A. Map Datums

WGS84
World Geodetic System of 1984
Default datum on Garmin and most other GPS receivers. Most accurate datum covering the world, but not yet in wide use on USGS topo maps. Also known as the "GPS datum".

NAD27 (NAD27CONUS)
North American Datum of 1927, Continental U.S.
Older datum still used on most USGS topographic maps.

NAD83
North American Datum 1983
Very similar to WGS84. Used on newer USGS maps.

- and hundreds of others in use around the world!

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COORDINATE SYSTEMS COMMONLY USED IN U.S.A.

Latitude / Longitude (Angular)
Degrees-Minutes-Seconds (hddd*mm'ss.s")
Degrees-Decimal minutes (hddd*mm.mmm')
Decimal minutes (hddd.ddddd*)

UTM / UPS (Rectangular, Metric)
Universal Transverse Mercator
Universal Polar Stereographic

MGRS   (UTM variation using alpha-numeric I.D.)
Military Grid Reference System