



Gary Rolfe has navigated over 11,000 summer and winter Arctic miles with dogs. In summer he crosses hundreds of rivers, tundra, confronts bears and deals with wolf packs. In winter and spring he's on sea ice. In his own words, "it's cold enough to spit ice cubes." Gary travels alone. It's nosebleed inducing just thinking about it, and he doesn't want to get lost. Gary moves to Greenland this winter ([www.garyrolfe.com](http://www.garyrolfe.com)) and

he's sponsored by Garmin GPS units ([www.garmin.com/uk](http://www.garmin.com/uk))

## **Q.** Is a GPS better than a map for you ?

**A.** Sometimes the only maps available for crossing tundra are drawn up from 50-year-old aerial photographs. They're not brilliant. Contour lines can be widely inaccurate and high Arctic river systems alter year to year. Tundra lakes appear or disappear. If a geriatric map is all I have then my GPS eradicates doubt - its information is final. Sea ice travel is also greatly improved by having a GPS. Local time and my shadow all help but it's hardly precise navigation, and who wants to dick around with a sextant? I don't. Phones go wrong. Believe me I know. I carry my EPIRB rescue beacon

and a Vertex Standard VXA - 150 Pro V ground to air VHF transceiver at all times. With a Garmin NMEA (National Marine Electronics Association) data cable hooked up to my eTrex Vista, my precise location can be transmitted either by radio or beacon. I know this because the system helped saved my life this spring.

## **Q.** Do I need to own a computer to use a GPS?

**A.** No, only if you want the most from advanced GPS features and definitely if you're like me, an absolute sod for detail. Trip planning involves an emergency procedure and that means map software such as MapSource on a rugged laptop like a Panasonic Toughbook.

## **Q.** How accurate are modern GPS handsets?

**A.** 24 navigation satellites orbit earth 12,500 miles up. A GPS must lock on to four of these satellites for a 3D fix giving co-ordinates within 15m of your exact location.

## **Q.** When buying, what should I look out for?

**A.** My lifestyle determines that the gear I choose can hack more than a small bump, and I'm thinking you might be the same. I consider a GPS unit genuine survival kit, it can't pick and choose its moments to work. Garmin offer a range of units for all levels. They're rugged, waterproof and come as simple or feature-rich as you

want. All GPS units provide waypoints - stored coordinates. Select a waypoint with a basic GPS and it'll direct you but won't give you the information a map will to anticipate and chose a safe route. A top-end GPS unit will. They support digitised topographical mapping with all the contour lines and land features you want. GPS units with built-in electronic compass give direction headings when standing still. Buy a unit without this feature and you'll have to be on the move for this information. Purchasing points to consider are USB compatibility, built-in base map and MB memory for extra maps. These aren't gimmicks, they're there as safety back ups.

## **Q.** Can I use a GPS anywhere in the world?

**A.** Guaranteed global coverage, 24/7. Just make sure to offset your GPS datum to correspond with map choice. A datum is a model of the earth's surface based on a surveyed network of physical points. There are over a 100 map datums in use throughout the world. Select the map datum on your GPS and you'll automatically set UCT (Universal Coordinated Time), GMT (Greenwich Mean Time) to you and me.

## **Q.** What extremes will a GPS tolerate?

**A.** Mine's been faultless throughout a temperature range of 81°C (+30°C to -51°C) and it's had the crap knocked out of it. I favour Garmin's eTrex Vista because of

its dot matrix grey scale screen - it might appear crude but performs better in cold. Batteries matter cold or no cold; alkaline batteries contain water rendering them useless below

-35°C. Energizer e2 lithiums are fearless. If you want a coloured screen then TFT screens provide the best resolution, but they do drain batteries more.



On flat sea ice a GPS is essential. Photo: Gary Rolfe.