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# STEVE BIRKINSHAW'S TOP 10 NAVIGATION TIPS

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With almost 40 years orienteering experience, Steve Birkinshaw is well placed to give advice about navigation. Here are his top 10 tips!



I started orienteering by myself aged 7 and at the beginning I was absolutely useless. I would get very lost and regularly take over 2 hours to complete a 2km course. However, I improved and I have won a wide variety of events in orienteering, mountain marathons, adventure races and fell races, including over 20 wins in elite classes at Mountain Marathon. Despite nearly 40 years of experience I am still learning and still sometimes make navigation mistakes. These mistakes annoy me intensely but the important thing is to learn from them and not make the same mistake again.

Here are my top ten tips – mostly obvious but hopefully they will be useful for some people. They are mostly focused on mountain marathons and adventure races but some are applicable to fell running, orienteering or walking in the hills.

**1. By far the biggest majority of my mistakes these days are when I stop concentrating on navigation. For example if I am in a fell race and I cannot be bothered to get out my map and compass and I am just focused on running, which happened at last years Borrowdale Fell Race. Or else I might have my map and compass out but I start chatting with someone and stop looking at the map and compass.**

**2. Love those contours.** Contours are the key to navigation in the hills they can tell you so much about your route. They tell you not only if you are going to be going up or down, but also how steep the terrain is and even the type of underfoot conditions to expect. The best technique is to use the contours on the map to create a 3-D picture of the terrain in your mind then it is possible to look ahead and see the hills on the ground. It makes navigation so much easier. Unfortunately, some people are never able to do this however much they practice. Another great thing about contours is they never go out of date (unless someone builds a huge quarry), however old the map is.

**3. Orientate the map.** Navigation is a lot easier if instead of holding the map with north pointing upward (like you might if you were looking at a road atlas) you turn it so that the north arrows point in the same direction as the north arrow on the compass. In fact I find it surprisingly annoying when I see people do not orientate the map. If you do orientate the map it means if you look at something in front of you on the map it will be in front of you on the ground so navigation becomes much easier. [In the UK the magnetic declination is currently almost zero, e. north using the grid lines on a map is currently almost in the same direction as the magnetic north. In other countries a correction can be needed].

4. Know how to use some sort of distance estimation. Most of the time I do not bother with distance estimation but it is a great technique to have available in certain situations like at night or running a set distance along a track. The standard orienteering technique is pace counting. You know many steps it takes to run 1000m over a variety of different terrains and from the map you can work out how far you want to go and so how many paces. Personally I do not like counting paces but if I need to be precise I will use it. My more normal technique is to use timing. It is similar to pacing as for a variety of terrain you work out how many minutes it takes to cover 1000m. Then it is simply a matter of working out the distance on the map, and working out long it should take.

**5. Go out at night or in bad weather. Being out when the visibility is greatly reduced is a great test of navigation and great fun. Instead of being able to see several kilometres into the distance and running there, the map, compass and distance estimation become really important. In these conditions I make sure I use all the available techniques. At night with the fog down your headlight will reflect back at you, under these conditions take it off your head and hold it at knee/waist level pointing forward.**

6. Know how to use a GPS. I personally prefer a good old map and compass and in many races having a GPS with you is not allowed. However, when a GPS is allowed it is great to have one with you (together with spare batteries) as a back-up and also to know how to use it. When I am supporting on a Bob Graham Round I always have one with me and I have used it on several occasions. For example one time on the Helvellyn ridge at night with visibility down to less than 2 meters we were running over the main paths without even seeing them. It saved a lot of time having the GPS out and using it.

**7. It is obvious but the more you go out practicing with a map and compass the better you get. Instead of running your normal routes how about going out with a map and trying to find new footpaths and routes or go Orienteering.**

8. Look around. When I go out running with people it amazes me sometimes how certain look straight in front of them themselves the whole time instead of looking around. Looking around at the views makes it more enjoyable but can also help with the navigation. For example you might see some trees which will be on the map and tell you where you are.

**9. Trust your compass. On many occasions I have got completely disorientated in the fog and if the ground is fairly flat then you need to rely on your compass. It can be hard sometimes as it may feel like it is taking you the wrong way but you need to trust it. [In certain places, such as the Cullin in Skye the rocks are magnetic in which case you should not trust your compass. Mobile phones and other electronic things can also affect compasses so it is worth having a backup just to check].**

10. Learn to relocate. At some point we all get completely lost and it is important to know what to do under these circumstances. The main thing is to not panic but just be calm and rational about it. Firstly, orientate the map. Secondly, look around, are there any obvious features on the ground that must be on the map? These might immediately tell you where you are. Thirdly, look on the map to when you last knew where you were. Then remember which features you have crossed and seen since then and look for them on the map. Fourthly, if you still have no idea it is worth following a compass bearing to a major feature (e.g a road).

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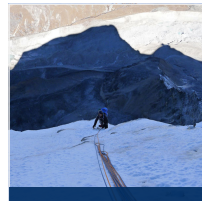
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