



Pacing

A Navigational Aid

Pacing is a technique used in navigation to estimate distances travelled over individual legs of a hike. It can be extremely useful to hikers in poor visibility or on a route which provides few landmarks to use as checkpoints. For example, if your patrol's route card requires you to hike 100 metres along a featureless plateau in dense fog at a bearing of 120° and then make a turn and walk 200 metres on a bearing of 55° , how might you decide when to turn? One way of estimating when you have covered the initial 100 metres would be to time yourself and based on your average pace (e.g. 4km/hour), you might guess that by walking for 1.5 minutes ($4 \text{ km/hour} = 15 \text{ minutes per km} = 1.5 \text{ minutes per } 100\text{m}$), you will have covered the distance. This method of using average speed and time to measure distance can be very inaccurate however, which is why we use pacing.

How to Calculate your Pacing over 100m

Pacing works by calculating how many paces it takes you to travel 100 metres on flat ground, on an uphill slope and on a downhill slope. The average person will walk 50-70 double paces over this distance. We measure pacing in double paces so you will only count your pace every time one of your feet touches the ground (usually your prominent foot). Measure out and mark a 100 metre distance on flat ground. You should then count the number of double paces it takes you to cover this distance. By repeating this exercise a number of times, you can take the average of your results to use as your pace. The gradient of the land will have a huge influence on your pacing as we tend to take smaller steps travelling on slopes. If you can, measure 100 metres on a hill or sloped area of land and repeat the above process for both uphill and downhill pacing. Memorize or jot these numbers down. A handy tip is to keep a record of your pacing numbers in your map case!





Putting Pacing to Use on the Hills

Not all legs of a hike will be as straight forward as 100 metres. When covering longer distances, the trick is to break the distance down into smaller 100 metre parts and count every time you cover 100 metres. A good way of keeping track of how far you have travelled is to pick up small sticks or pebbles and drop them at 100 metre intervals to denote how far you have left to go. For example, if you needed to walk 500 metres on a bearing, you would pick up 5 items to drop every 100 metres. Pacing beads are also used for this purpose. By securing 5 or 10 beads to a short length of paracord or rope and tying it at both ends, you can pass one bead from the top of the rope to the bottom every 100 metres. Tie this rope to the chest strap of your rucksack to always have it to hand!



Remember: Pacing is only ever a means of estimating distances. The gradient of the land, obstacles and nature of the terrain underfoot will always have an effect on your pace. Where possible, try to keep your pace consistent and allow a few extra paces at the end of the leg if you had to avoid any obstacle in your direct path.

