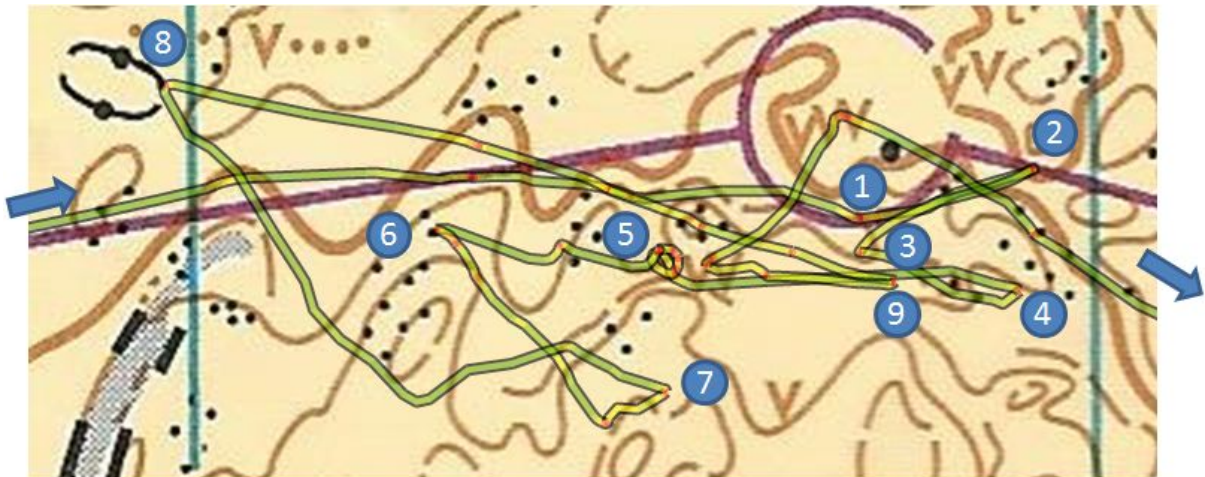


Distance judgement & relocation in the control circle

Introduction

Have you ever done this?



I have - and you can read the full, nasty, saga (and some more) at the end of this article!

Have you ever said “I was 15m from the control and missed it”!

- How much time did you lose? 4 minutes, 10 minutes, 20 minutes...?
- How much extra distance did you run?
- How much energy did that take out of you for the rest of the course?
- How many places did you drop?
- Was your mind messed up afterwards?

I've looked over my courses for the past year and EVERY major mistake I made was at the control circle. Here are my thoughts following this distressing discovery. I propose a plan, suggest some exercises and relate my tales of woe!

The plan

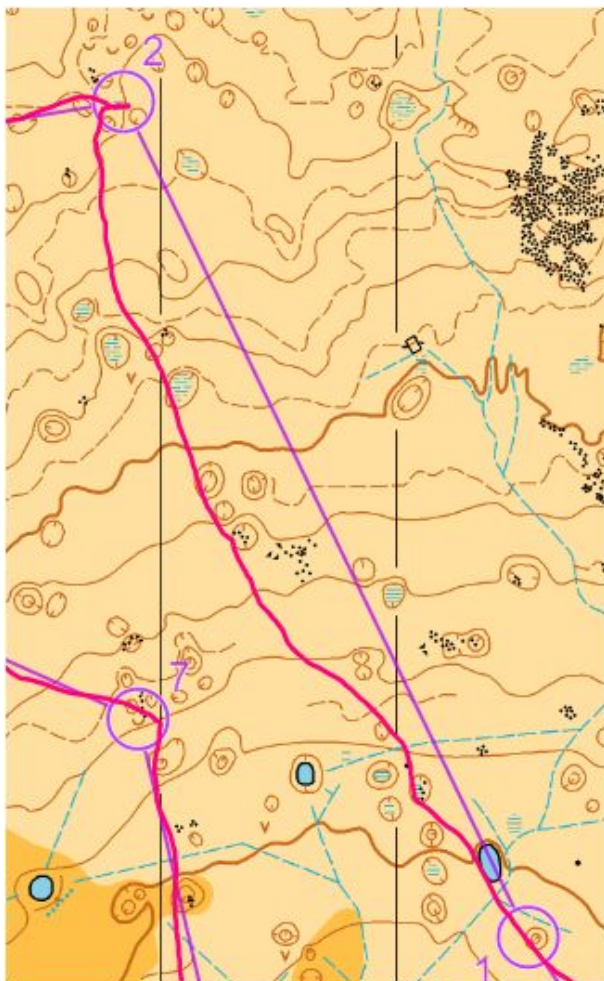
1. Understand the size of the control circle.
2. Have a plan for the control circle.
3. Develop YOUR control circle relocation checklist.
 - What I describe below is a suggestion.
 - You can develop a checklist that works for you.
 - There's only one rule - have a checklist.

Understand the size of the control circle

The size of the control circle is a good unit of measure to keep in your mind. For example the area below is a limestone area covered in large sinkholes...but can you tell how large before you approach them? Had I thought about this I would have navigated completely differently. It was a foggy day with visibility of 100m or so. I moved slowly, taking careful bearings and pacing. However, the sinkholes are BIG - many are at least half the diameter of the control circle. On this 1:10,000 map they must be 30m+ diameter.

This orienteer has had the confidence to thread their way swiftly and accurately across a considerable distance. They probably didn't need much compass or pacing work - rough bearings and distance judgement have allowed them to just bounce off the large sinkholes, using them as stepping stones.

Croeso 2016, day 4, Mynydd LLangynidr, course 7



Generally control circles have a 6mm diameter on our maps (there seems to be [debate](#) on the correct size). A 6mm control circle on a 1:10,000 map represents 60m on the ground. At 1:15,000 it's 90m. This is a BIG area. At 1:10,000 if you stop 20m short of the control circle

you will be 80m short of a distinctive feature at its far side! That's a long way on a boulder strewn, intricately contoured hill.

Have a plan for the control circle

Approach to the control circle

Before you reach the control circle

Before you reach the control circle read the control description.

1. A control will always be at a feature. Know what the feature is. The orienteering rule is that controls should not be closer than 30m. Controls on similar features should not be closer than 60m.
2. Know where the kite is in relation to the control feature. Will you be able to see the kite on approach? The orienteering rule is that if you are at the right part of the control feature you must be able to see the kite, kites must not be hidden.
3. Know the control code. The orienteering rule is that on a course the control codes should not be in order (e.g. 101,102,103 through to the finish is wrong).
4. Visualise how the ground will look as you approach the control circle.

As you approach the control circle

1. As you approach the control circle be like a meerkat. Keep tall, alert and look all around.

When you reach the control circle

1. Be like a meerkat again.
2. When you reach the edge of the control circle is it as you had visualised?
3. Do you need to relocate?
4. If you need to relocate do so calmly and systematically by following YOUR checklist.

At the control

Check the control code

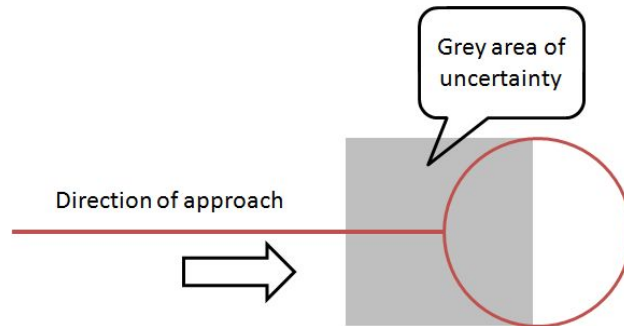
1. Planners and controllers are not infallible. Sometimes controls will be too close together. Your insurance is to check the control code.

Control circle relocation checklist

1. Check the control sheet.
 - a. are you looking for the right feature?
 - b. are you looking for the right part of the feature?
2. Where in the “zone of uncertainty” would your most likely error have left you?
 - a. Work out if you are there.
3. Work systematically around the corners of the zone of uncertainty
 - a. Ask yourself “are you there?”.
4. If you have failed to relocate...
 - a. look for features outside the “zone of uncertainty” that can help you.
5. If all has failed...
 - a. Do not hesitate, return to your last known point and resume from there.

Exercises to Try

1. Put chalk marks 30m and 60m from your house so you see them every day and get the size of a control circle radius and diameter into your head.
2. Decide what YOUR control circle relocation plan is going to be.
 - a. Write it out and stick it in your control holder.
 - b. Think of a mnemonic for it.
3. If you have a GPS watch look back at controls where you touched the control circle but then went wrong.
 - a. Look to see if you could have relocated if you had applied the checklist.
 - b. If the checklist wouldn't have helped, look to see if you can come up with a better checklist that would have worked.
4. If you don't have a GPS watch look at Routegadget for courses you have done.
 - a. You will find examples where people have hit the control circle and then gone wrong.
 - b. See if you can work out what they could have done to avoid the mistake.
5. Search the web for “orienteering relocation” and “orienteering control circle” (I haven't found many links).
6. Develop an image of the area of uncertainty
 - a. Let's assume you're approaching the control circle and aim to slow down at the edge of it.
 - b. Let's assume that you may be accurate to +/- 30m in distance.
 - c. Let's assume your directional accuracy has taken you +/- 30m either side of a straight line.
 - d. Here is the “zone of uncertainty”.



- e. Have a look at this map from Croeso 2016, day 4, Mynydd LLangynidr, course 7 with a “zone of uncertainty” marked.
- Pick a point and think what you would see in front of you, to the left, to the right and behind.
 - What way would the land be falling?
 - What feature(s), if any, have you just passed (e.g. the form line).



- f. Develop an image of margin of directional error
- Holding one finger up at arm's length obscures roughly an angle of about one degree.
 - Estimate how accurately YOU can walk on a bearing - how many degrees do they think YOU keep within?
 - Hold up this number of fingers up at arm's length and look at what size of object is obscured at 100m, 200m and 300m.
 - Ask yourself how far away from a control circle you would have to be to obscure all of it. This is the maximum distance you can run on a bearing to hit a control circle.

My tales of woe!

JK2016 Long Distance, Kilnsey, 27th Mar 2016, control 7

- Missed by 30m,
- 7 min 20 seconds lost,
- 1.1 km extra run.



1. I believed I had reached the control circle but didn't see the the feature I was looking for. Got confused.
2. Wandered on a bit and saw a kite which I knew in my mind wasn't mine. I didn't have a better plan so went to check it out.
3. Went back to more or less where I had been.
4. Thought maybe I hadn't gone far enough so wandered on a bit, this time drifting further off the correct direction.
5. Went back with no particular plan, found a small depression. Thought I could relocate from it and spent ages trying to but couldn't.
6. Wandered back to the spur as a definite point. I had lost it totally by this point. I considered going back to the sheepfold but thought that was just too much of a retreat.
7. Saw a bunch of people and with no better plan went in their direction.
8. Finally gave in and went back to the sheepfold.
9. Got the distance right again but direction was further off. I was probably shying away from going back 1 where I had been unsuccessful already.

Finally I saw somebody emerge from a pit and went to investigate. It was my control.

What actually happened was that I had misread the map. I had read the three pits where the control was as a zigzag contour. I was looking for jagged edged raised ground. Had I systematically gone through a relocation checklist at point 1 I would have read the control description, realised it was a pit and quickly relocated. Sadness!

Divis Mountain

- Missed control 14 by 3m,
- 2 minutes 47 seconds lost,
- 265m extra run.

...and then

- Missed control 15 by 5m,
- 5 minutes 25 seconds lost,
- 416m extra run.

Total of 8 minutes 12 seconds lost, 681m extra run to go 8 metres!



Control 14 - first disaster

1. I stopped 3m from the control. I felt sure I was very close but I didn't see it.
2. I went on a bit but stopped because I was getting too close to the path.
3. I went back. I still didn't see the control. I began to wonder if it had been moved.
4. I decided to relocate from the road junction.

I finally reached the control. My navigation had been correct to the control circle but there were rushes in the circle and I wasn't enough of a meerkat to see the control on the other side of the rushes from me. The control wasn't hidden. I just didn't look carefully enough.

Control 15 - second and larger disaster

1. I left control 14 thinking how had I messed 14 instead of concentrating on 15. Nevertheless I got the right distance and angle to the edge of the control circle.
2. When I got there I had doubt because I hadn't been concentrating. I continued forward and saw a pit, checked it out. It was wrong.
3. Felt I had gone far enough but was maybe too high. Started downhill but realised I was getting too close to the track.

4. Started going back, swept past the control circle again and got distracted by a couple of small features.
5. Saw a kite which definitely wasn't mine but my head was messed up so I went to it to relocate.

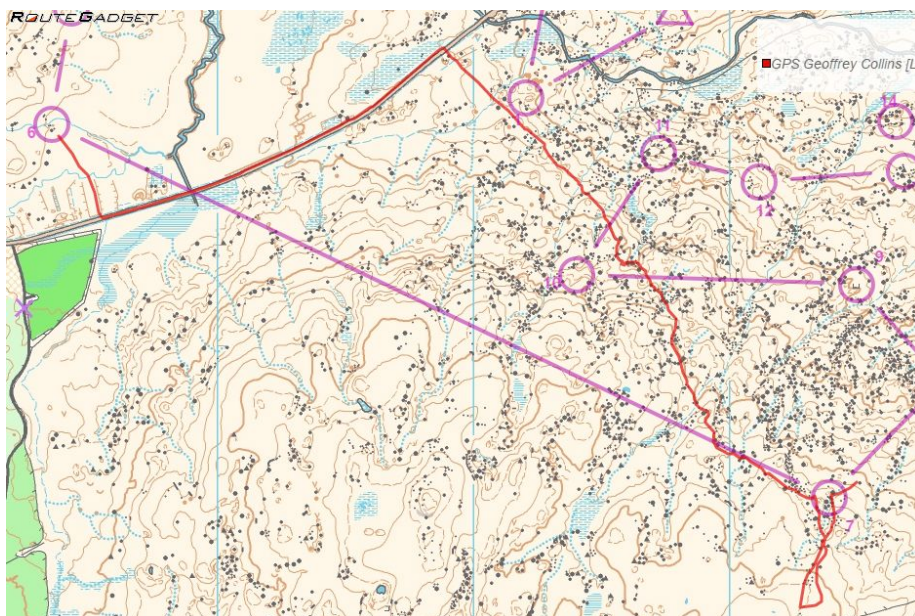
This control should have been so easy. I was surrounded by relocation clues. I was on a distinct spur, there were fence lines, a track and it was only a short distance from my previous control.

Irish Orienteering Championships 2017

Sruth an Iolra & Log an Chaortain 30-Apr-2017, Course 4. "It could have been my finest hour".

Despite the eccentric but deliberate route choice at the start of the leg I had navigated the longest, most intricate, piece of orienteering country in my career. I reached the control circle without incident...and then, oh dear.

1. I felt I was in the right place. Everything on the approach matched.
2. There were even a couple of orienteers in the area!
3. But...I couldn't quite believe I'd got this far accurately and those orienteers seemed to be moving on having not found something (bad psychology - getting distracted by others).
4. And...I knew I had always had a fall-back plan to relocate from the fence to the south.
5. I did not calmly relocate in the control circle - I took the "safe" but silly option to relocate from the fence. 300m extra travelled when I was 30m from the control!
6. After this the rest of my course fell apart. Sigh.



Creoso 2016 day 1, Kenfig, course 7, control 4

- Missed control 4 by 30m,
- 8 minutes 26 seconds lost,
- 250m extra run?

How hard could it be, really!



Leinster 3-day Day 2, Lough Firrib

- Missed by 30m,
- 4 minutes 47 seconds lost,
- 280m extra run.

Bounced off that control circle like it was a wall!

