



West Anglian
Orienteering
Club



JABBERWAOC

Vol.45 No 3

October 2017



Scottish 6 Day Presentation Ceremony

Our WAOC Junior Alex Weatherill winning Bronze



Editorial: Huge thanks to all who sent in their articles and maps to make this issue.

Congratulations to Alex Wetherill for coming 3rd in M14 and Rob Campbell for winning W50S at Scottish 6 Days. See Rob's discussion of Long versus Short courses, not only when injuries need consideration (p19).

Iain and Andrew Stemp give their account of coming 3/17 in the Family Generation Category of the gruelling OMM Original Mountain Marathon this past weekend [28th overall] on page 21. Ian Smith describes his best of the 6 Day (p8), Mike Capper attends more varied summer events than any other member (p 12) and hear of events in Norway from Ruth and Gjermund Vinderhagen (p 10) plus the usual sections from Peter Woods, Helen Bickle, Bruce's puzzle (p8), Peter Duthie and Ursula all squeezed into 28 pages giving you a bumper issue 3.

After the CUOC Cambridge City Race and WAOC Brandon Event this weekend, may you get into the swing of regular weekend orienteering events over autumn and winter when the undergrowth is of a more suitable height for running through woods. Plenty of urban, sprint and night events available as well, so whatever your favourite terrain, may you and all your family enjoy good orienteering over the autumn, Hazel Bickle

Please write an account of your autumn and winter events as soon as you like. Next copy date 27th January 2018.

WAOC Committee

Chairman:	Peter Woods peterWAOCwoods at gmail.com	Secretary:	Jenny Hunt secretary at waoc.org.uk
Treasurer:	Noreen Ives treasurer at waoc.org.uk	Captain:	Graham Louth captain at waoc.org.uk
Junior Captain:	Alex Wetherill juniorcaptain at waoc.org.uk	Fixtures Secretary:	Bob Hill fixtures at waoc.org.uk
Convenor:	Helen Hague convenor at waoc.org.uk	Mapping Secretary:	Neil Humphries
Membership Secretary:	Anne Duncumb memsec at waoc.org.uk	Equipment Officer:	Caroline Louth equipment at waoc.org.uk
Website Maintainer:	Rakesh Chandraker webmaster at waoc.org.uk	Publicity:	vacant – would you like to fill this role?
Clubnight Coordinator:	Helen Bickle clubnights at waoc.org.uk	Welfare Officer:	Peter Allen welfare at waoc.org.uk
Jabberwaoc Editor:	Hazel Bickle editor at waoc.org.uk	Awards Coordinator:	Ian Smith awards at waoc.org.uk

Welcome to new members

Lorant Farkas and Katalin Juhasz and family (Oskar M12) from Cambridge
Steve Groves from Impington
Yaroslav Shkarupa from Whittlesford
Tom Beskeen from Cambridge
Rich Kerswell and family (Sophie W12 and Eleanor W10) from Hauxton

We hope you will enjoy orienteering with us. **Anne Duncumb** (membership secretary)

2018 Membership Renewals. Thank you to those of you who have already renewed your WAOC/BOF sub - 5 individuals/families so far. We hope you will all want to continue your membership of WAOC. BOF members will shortly receive their renewal notices and **WAOC Club only** members will receive a renewal form by email.
Thanks - and good O-ing in 2018 **Anne Duncumb** (WAOC membership secretary)

British Orienteering Navigation and Racing Challenges:

<https://www.britishorienteering.org.uk/incentives> explains this new award scheme still based on completing 3 events of the same colour. The **Navigation Challenge** gives up to 5 stars equivalent to the Technical Difficulty level of the colour coded course. Remember to ask Ian for the colour cloth badge to wear on your O top! The **Racing Challenge** depends on time, with course length x 12.5mins for GOLD, x 15mins for Silver and x 20mins for Bronze.

Our first WAOC Members to receive their certificates:

Sue Hartley - Racing Challenge: Bronze Award *****

David Humphrey - Racing Challenge: Silver Award *****

British Sprint Championships 2017 - Peter Woods

At 6:35pm on Saturday 30th September 2017, a police car pulled off Avebury Boulevard in Milton Keynes and stopped in front of the gates to the Campbell Park Plateau. The lone officer got out of the vehicle and walked up to the gate, where she encountered a middle-aged male, white, slightly built, about 5'10". At that moment, the male in question, namely the author, had a momentary panic and imagined a long interrogation at the station resulting in the following report:

The officer was responding to widespread reports of punching in the park and also, earlier in the day, in the housing estate to the south.

Subsequent investigation has revealed an operation involving a network of accomplices over 5 counties with possible links to similar gangs (so-called "clubs") in the capital and beyond. There is no doubt that the incident was pre-meditated, having been plotted for longer than the previous 12 months. The modus operandi are only now becoming clear, but appears to have been roughly as follows:

Early in the planning, the accused admitted to having created a "No-Go" area in ostensibly public spaces where members of rival gangs were threatened with dire sanctions if they attempted to enter the so-called "embargoed" areas. We still do not understand what the penalty euphemistically referred to as "being rendered non-competitive" really means, but there is no doubt that those masterminding the operation could cause names to disappear without trace, from the results.

It appears that this was used to cover up the actions of a small group of gang members who worked in secret in what seems to have been some sort of counterfeiting operation called "the



map". They aimed to perfect a level of accuracy that even the most highly trained experts would accept. We have uncovered reams of test samples where many different inks and printing techniques had been trialled, and these efforts seem to have continued right up to a week or so before the incident.

There also appears to have been an internet scam, where people were persuaded to pay quite large sums to have their name added to a list appearing on a website. The gang used this income to fund a lavish lifestyle involving marquees, sound systems, and to pay off local landowners.

The incident on the day itself appears to have involved money laundering on a massive scale. Large quantities of gold, silver and bronze medallions were distributed to nearly 100 individuals (fences?) of widely varying ages based in towns throughout the UK, no doubt explaining the concern expressed by the accused on the need to bring in fence posts from all over the region.

The whole spectrum of enforcement services including police, fire brigade, and local council officers were persuaded to turn a blind eye to the goings on by having explained to them the so-called risk assessment, which made graphically clear the potentially horrific consequences of any action not considered desirable by the ringleaders.

Under further questioning, the accused admitted to having unlocked the access gates which had allowed the participants to flood into the park, but insisted that he had no connection whatsoever with a cortege of three vehicles from a wedding, which had driven up onto the plateau at approximately 5pm. He was completely unable to explain how this group would have known that the gate would be open on the day of their nuptials and denied collusion with their committing the offence of taking (photographs) and driving away.

Of course, in reality the police officer was just on the lookout for some tearaways and asked if I had seen anyone running across the park (!). I said no, which unfortunately was true, as I did not get the opportunity to see the actual races. I only heard descriptions second hand, for example from those who had watched the finals from the vantage point of the spire. The feedback from competitors on the map and the courses was universally positive, and there were no problems with complaints and protests which have proved problematic at similar events in the past, despite the fact that two control sites in the morning race were severely vandalised.

I am very proud of all who made this event a success, and this includes every one of the WAOC members who volunteered to help on the day. There were 40 WAOC names on the helper list – over 1/3 of the total number of helpers. I am greatly thankful to you all for this - I only needed to accept your offers to volunteer and I was spared the task of ringing round to find helpers.

I have no qualms about grassing up some of my partners in crime: Bruce Marshall was Equipment Officer who made sure that all the right kit was in the right place at the right time, but also acted as deputy organiser and was a great help to me in the weeks and months preceding the event as well as quietly making sure things worked on the day. Graham Louth was named as a planner, which is true, but he was also an essential resource on the technicalities of the rules of the Sprints and other matters. Caroline took on the team lead role for the junior heats starts relatively late in the day and did a terrific job, Helen Hague and her team made the registration task look easy, and my worries about the space available for parking on the plateau were alleviated by a great parking team led by Ian and Andrew Stemp. Special thanks are due to Sue who has been a "sprints organiser widow" for the last year and who also led the Heats finish team on the day, amongst other jobs

I would like to end this "confession" by saying that that I consider myself very lucky to have had the chance to be the organiser of a level A event on behalf of EAOA. I made many friends during the planning, and it was very satisfying to see teams from WAOC and the other clubs in the region work together to make the event a success.

THE BRITISH SPRINT CHAMPS – A WAOC VIEW – Ursula Oxburgh

The British Sprint Championships 2017 were an absolute triumph for both EAOA and WAOC. (<http://www.britishsprintchamps.org.uk/page/results>) They are the hardest of all the championships to organise, with a qualifying round in the morning and finals in the afternoon and all the calculations for the finals to be carried out after the last person has downloaded from the morning qualifier.

First of all I want to say a bit about the East Anglian Orienteering Association. It meets every 2 months or so, always on a Friday evening and in Newmarket. All 6 EA clubs (HAVOC, NOR, SMOC, SOS, SUFFOC and WAOC) send representatives. Newmarket is more or less in the middle of the region, which makes it an easy ride for WAOC but people come in from far and wide, battling through the Friday evening traffic, to make it to the meeting. We are an extremely co-operative Association so when the British Sprints were offered to EAOA and we decided to put them on it was always recognised that this would be an Association effort, with input from all the clubs and with any profit (or loss!) accruing to EAOA. A lot of planning went into them with the bulk falling on the organiser, Peter Woods.

Peter received 110 offers of help from all over the region including quite a number of non-runners, and coordinated everything so that the event ran amazingly smoothly on the day. The planners Graham Louth (WAOC) and Dorien James (SMOC) planned good courses on the areas (for those with long memories, Edward, Sophie, Thomas and William Louth were all there helping out on the day). Bruce Marshall (WAOC) managed all the equipment with the SI boxes coming from EAOA and WAOC. SMOC's locks and WAOC's gripples (all now transferred to EAOA) were used to ensure that the boxes remained secure when controls were indeed vandalised. There were trestles from BOF and start clocks from a variety of sources.



The big point of discussion in EAOA, apart from the budget, was whether the event should use regular SI punching, entirely SIAC (contactless) punching or mixed punching. In the end Peter decided on mixed punching, because the cost of supplying everyone with SIAC hire dibbers would have to be added on to already high entry fees. Peter then devised a scheme for WAOC to try out the mixed punching at lesser events. As I have described, we used it first at a Wednesday night training on Burrell's Field where we ironed out a few problems. Next up was the Royston Urban event, planned by Peter Duthie. Despite our care, we had quite a number of problems with the SI there with boxes failing during and after the race. The British Relays used mixed punching, where they had various problems with SIACs not registering, particularly at one control that was OK for the first part of the race but then suddenly failed. Bruce Marshall got in touch with Martin Stone of SportIdent who said that the one box had failed because runners were banging it with their SIACs as they went past and had broken the connection within the box in the course of the event. (At the Scottish 6 Days Sprint I was overtaken by a young woman who then banged the next SI box really hard with her SIAC, so it does indeed happen.) Peter set to work on the WAOC boxes. He soldered the connections in 4 boxes and THEN replaced some 20 batteries so now our boxes are just about as good as new and performed perfectly in the Sprints. In the Final Details Peter warned people not to bang the boxes and threatened that if they did he would know who had done it and would take appropriate action! People read the Details, WAOC's SI boxes survived and have ended up in a very robust state.

Thank you, Peter, WAOC and the whole of EAOA - we did it!



Wednesday Autumn and Spring Term Training Nights



Date	Location	Skill
1 st Nov	Lucy Cavendish, Castle Hill and St Edmund's	Planning ahead
8 th Nov	Centre for Mathematical Sciences	Moving Controls (remember your watch!)
15 th Nov	Girton College	Catching features/compass
22 nd Nov	Sidgwick Site and University Library	Relocation
29th Nov	Churchill Adventure Race	Every skill
Thurs 18 th Jan	Indoor Micro O – New mystery location	Indoor Micro O
24 th Jan	Jesus Green and Northern Street 	League event
31 st Jan	Newnham	Visualisation
7 th Feb	Churchill	Compass
14 th Feb	Wandlebury	Distances
21 st Feb	Coe Fen Outdoor Micro O	Micro O
28 th Feb	Histon and IVC	League event
7 th Mar	Burrells Field	Race techniques - start practice
14 th Mar	Cambridge West Long O 	League event



League competition event: 2k, 4k & 6k courses
All training session subject to permission so please check website:

<https://cuoc.org.uk/calendar/#filter=wed-o-training>

Junior evening training

- Wednesday 29th November Churchill Adventure Race.
- Thursday 18th January: Indoor Micro O.
- Wednesday 14th February: Wandlebury.

Older juniors are welcome to join in with any adult training and run in urban areas, if accompanied by an adult.

Timings: Please aim to arrive at 6.30 p.m. so that you are ready to start at 6.45 p.m.

Costs: Regular: £1 per adult, 50p per junior or student.
League: £3 per adult, £1 per junior or student.
Yearly subs: £30 per adult, £15 per junior (email Noreen at [treasurer at waoc.org.uk](mailto:treasurer@waoc.org.uk) for payment information).

New to training: The first session is free!
If anyone would like to be added to (or dare I say it - taken off) the training night's weekly email list, please email [clubnights at waoc.org.uk](mailto:clubnights@waoc.org.uk).

Junior training at Mildenhall

➤ **Sunday 19th November** training at Mildenhall South event.

The training, being led by Caroline Louth, will start at 11.45 after the Juniors have had a chance to complete a course. The focus is on contours with Use of Compass for less experienced juniors.

Please email [equipment at waoc.org.uk](mailto:equipment@waoc.org.uk) if you would like your child or children to attend and include their ages and which colour each child currently runs.

Training tip: Remember to **warm up** before your race:

The science bit:

Increased blood flow through active tissues increases metabolism and muscle temperature. Haemoglobin releases oxygen more readily at higher temperatures so warmed muscles utilise more oxygen. The flow of synovial around the muscle joints is increased and this reduces wear on the joints and warmed muscles allow greater economy of movement because of lowered viscous resistance.

Warm muscles work better.

Also it may help you get in the right frame of mind for orienteering before your start.

So before races why not jog to the start incorporating a few dynamic stretches, such as those used at training nights (e.g. high knees, bum flicks, touching the ground on alternate sides, strides with the back knee nearly touching the ground)?

[Don't do static stretches cold. They do not reduce muscle stiffness and can reduce the rebound capability of the muscle so actually increase the risk of injury.]

And **cool down:**

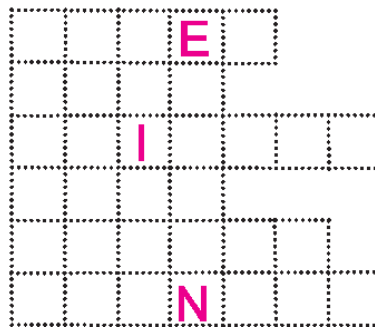
It aids the dissipation of waste products and could improve your flexibility.

So why not jog, or walk quickly, from the finish to download and try a few static stretches? This time static stretches are recommended as after exercise they do help muscles to relax, realign muscles fibres and re-establish muscles normal range of movement.

Puzzle 26 – Bruce Marshall

From the supplied list of orienteering terms find words which fit into the six rows.
Find a seventh word leading down diagonally from top left.

contour	league	paces	green
thicket	fence	scale	yellow
gully	corner	crag	white
copse	ditch	foot	brown
clearing	result	magnetic	orange
knoll	control	route	bridge
hill	stake	choice	junction
reentrant	flag	track	score
compass	marker	path	kite
bezel	clock	forest	suffoc
north	lost	sprint	banner
south	relocate	club	wood
east	follow	rowney	woodland
west	retire	wimpole	park
platform	compete	maulden	stream
download	helper	croxton	river
dibber	planner	training	fight
punch	controller		
punching	organiser		
start	sport		
finish	legend		
metres	boulder		
pacing	ride		
event	sprints		
veteran	slope		
junior	rootstock		
senior	run		
running	walk		



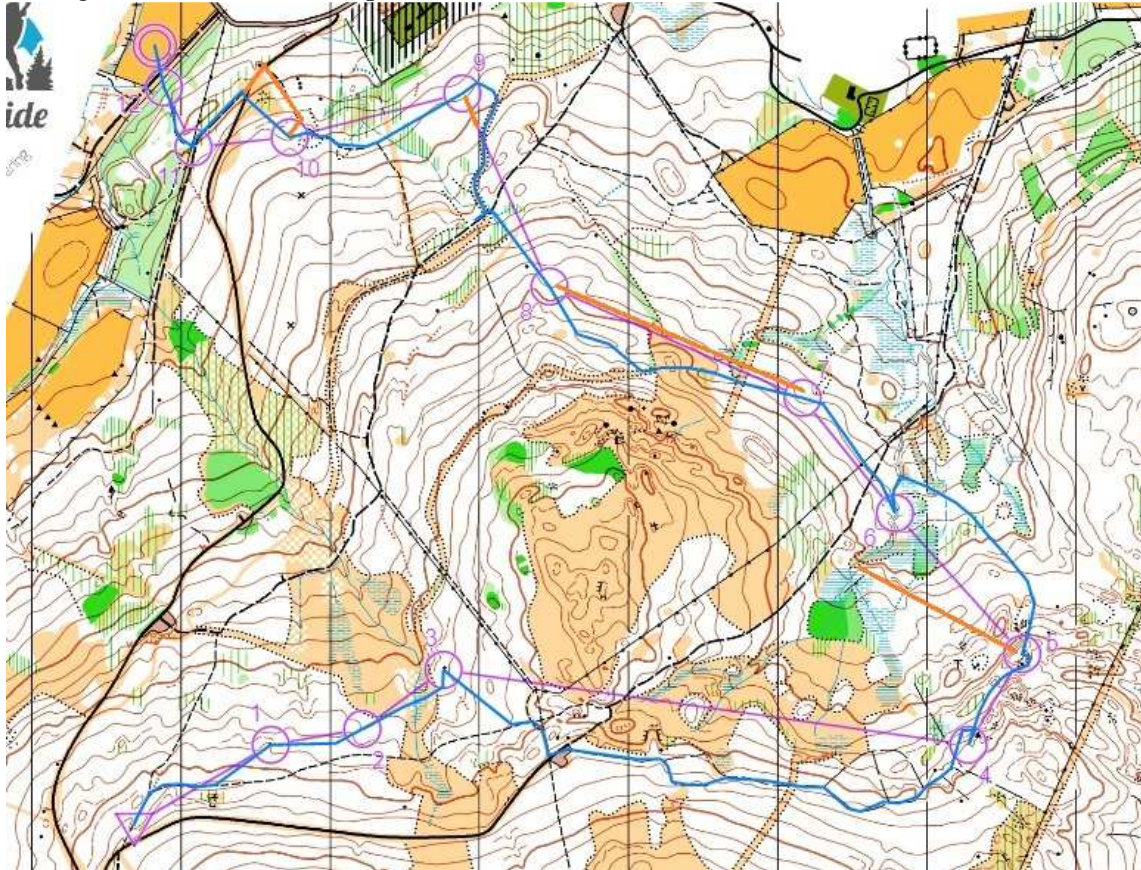
[Solutions on page 27.]

Royal Deeside 2017 Day 2 M60S – Ian Smith

I had two very slow controls on day one which I later realised were both caused by my pace counting being badly wrong. Even with the mental correction I had made before the start, the conversion from paces/100m in Thetford Forest to paces/100m on the rocky Deeside hills clearly needed more adjustment.

So I was a bit wary when the first control of day 2 required leaving a rare path at the right point. Rather than revert to my 'Thetford' pace counting I tried to use the 'top' of the elliptical contour the path crossed as the attack point. Even though the terrain is hard work for those of us who are no longer mountain goats the visibility was good and control 1 came into view as expected which is always a relief. Control 2 was straightforward as the open area beyond it was visible and served as a guide as long as I was careful not to drift down the slope too far.

Control 3 was simply a matter of going to the NE extremity of the wood and crossing the open marshy area. Once in the woods on the other side the visibility and control position meant another control was ticked off. The route to control 4 was along an extraction lane, when the track came to an end I went downhill too far and ended up north of the control but the big boulder in the NE of the control circle made correction nice and easy. The contour features between 4 and 5 all made sense, so far so good. Setting off for control 6 I was conscious of being pushed north and east by the undergrowth. I crossed a couple of small watercourses and



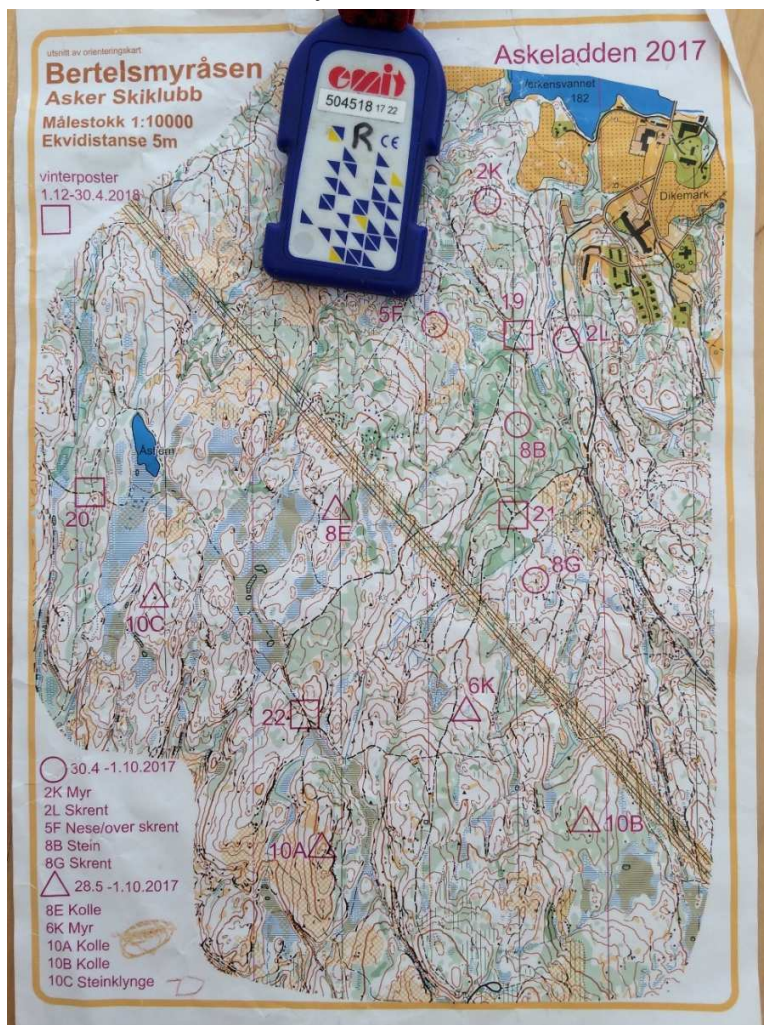
was worried how I would identify the 'real' stream but knew I had to keep going NW with the major path as a catchment. The obvious 'real' stream came into view and the belief I was too far north meant I knew which way to turn. In retrospect I should have set off from control 5 on a much more NW bearing and stayed south of the really nasty ground and pick up the stream in the open area, hindsight orienteering is so much easier. Control 7 was easy as the vegetation boundary in the NE corner of the control circle was obvious. Control 8 was hard work across the open area but getting to the control worked out well as the elliptical hill north of the 'ride' was obvious and taking care down the slope for 100m worked as expected. Looking back I should have been braver and contoured around the NE edge of the open, it would have been more direct and use less energy. From 8 it was down the hill to the main path. The ride going NW wasn't very obvious where it met the path but I soon convinced myself I was where I thought I was and set off down the ride. I didn't trust myself to use the rather vague bend in the ride as the attack point but carried on until I could see the much more distinct turn to the right and headed carefully down the slope. Even though this may have involved a bit more distance there was now a voice in my head telling me 'don't mess up now!' Control 10 was

easy given the path as a guide. I dropped straight down to the road on the way to control 11 but the ground made progress very slow, it would probably have been quicker to go back to the path although it seems like the 'chicken option'. Controls 11 and 12 were simply guides into the arena.

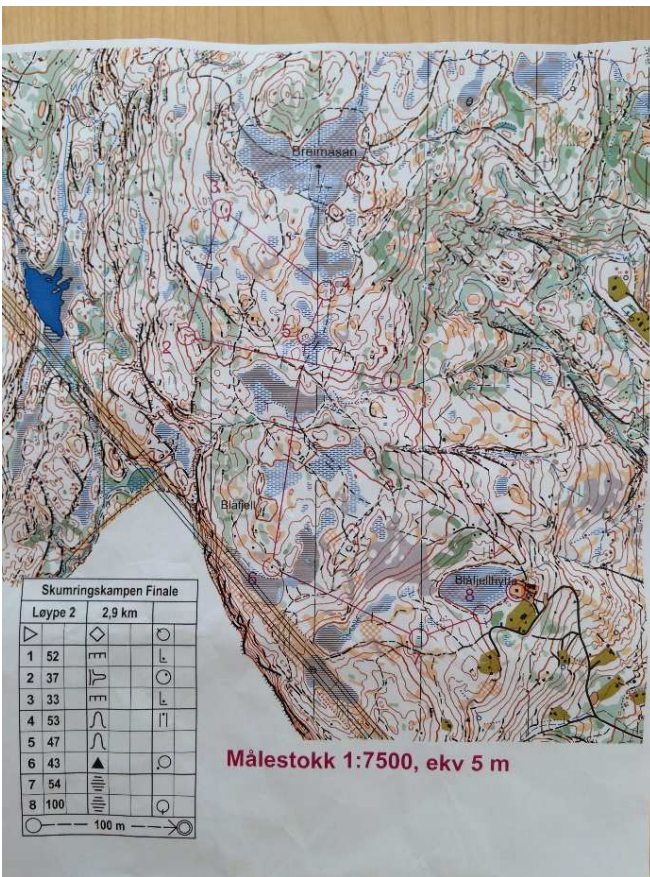
I was happy to finish in less than an hour, 15min/km would be considered a disaster in East Anglia, but I found moving across this terrain at any speed very difficult. After this I was looking forward to day 3, but sadly that turned out to be my disaster day so the less said the better.

Norwegian Wood - Ruth and Gjermund Vingerhagen

After orienteering in regions where some maps don't even bother with contour lines, we were happy to pick up our envelope of 11 'Turorientering' maps to get used to the new terrain just south of Oslo in Asker. These are maps with posts marked on them that you can do in your own time. Each has a code and a difficulty level and you can register how many you've been to and collect points. Perfect for training and even managed to get the children round some of them. We started too late in the season to visit all the mapped areas (managed 96 of 190 posts) but several of the maps have winter posts next to the cross-country ski tracks to extend the season



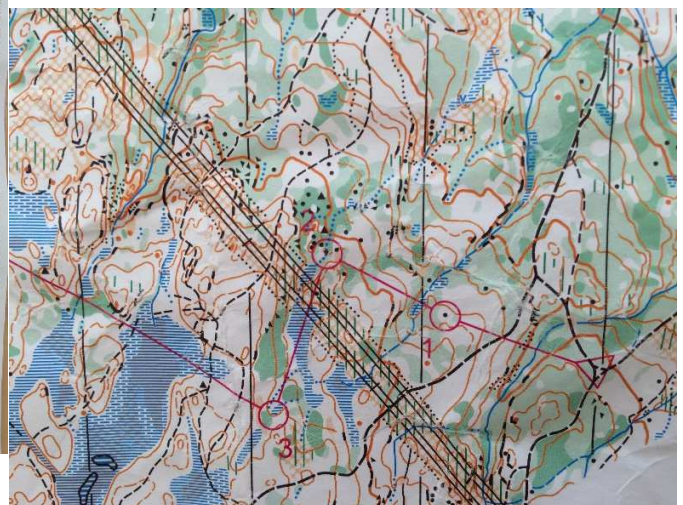
After familiarising myself with contour lines again, I turned up to the club's local evening race, only to find out that the battery in my old brick was dead (it hadn't been used in over five years). But thanks to Hazel, Mike and the isotope geochemistry group at Cambridge University, I could use my leaving present and buy a shining new Emit brick and registered for a series of five night races: Skumringskampen. Even though the posts had big reflective strips on them, it doesn't help if there are lots of trees in the way, and it is also hard to see what is up and down in the forest in the dark! I learnt the hard way not to try and be clever and take short-cuts, best be safe and stick to paths (if possible) and marshes are good for navigation even at the expense of wet feet (map 2). In one race I even managed to run right under pylons without noticing (map 3). The last race was a pursuit start and I managed not to get too lost (just visited post 4 (map 2) three times...).



Map 2(left): Lots of marshes.

Map 3 (above):
When running from 1 to 2 (in the dark) I failed to notice I'd crossed under the pylons and gone too far.

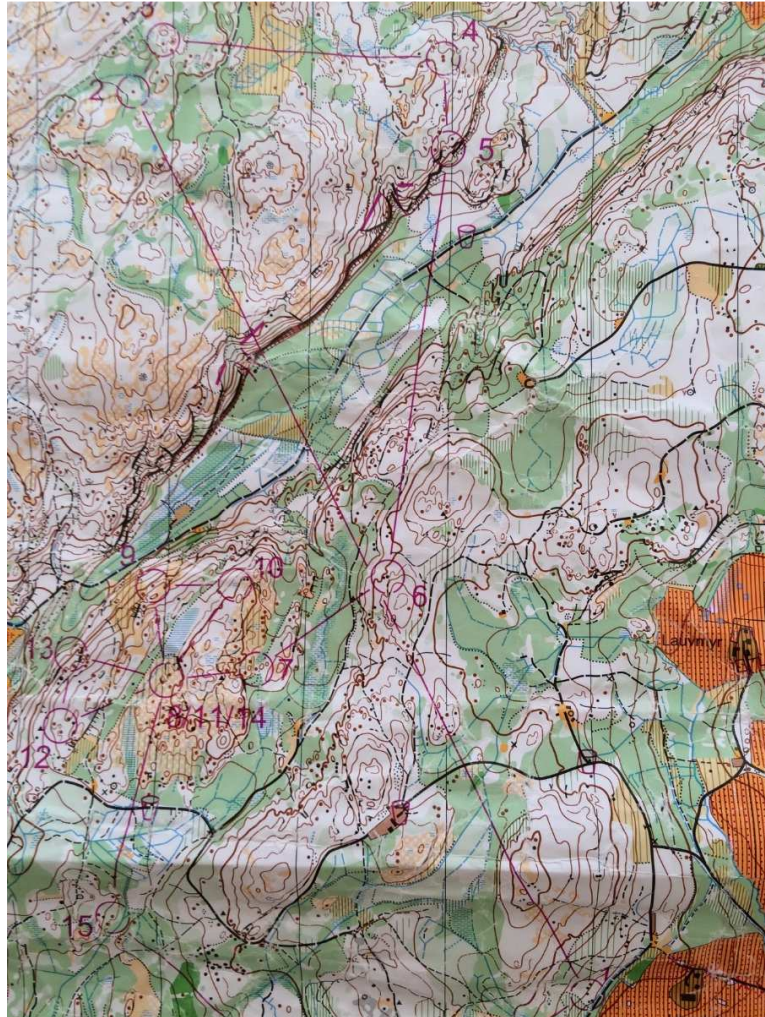
Map 1: Example of 'Turorientering' map. Note the winter posts (vinterposter) and my new Emit brick! Askeladden is a boy from a Norwegian fairy tale.



Then it was time for 'Blodslitet', which can roughly translate as 'the bloody struggle' with over 1300 participants. Each category is a mass start and for me (womens open) this meant 47 other competitors and 8.6 km. Seeing as my navigation is not the best, my tactic was to follow and they went fast. No chance to check my map before we were nearly at the second post (and that was a huge leg from post 1 to 2).

Gradually there were less and less people and by the time we were on our way to post 6 we were down to a group of 3. Then I did know where I was and went a slightly different way ending up on my own, but as the forest was full of orienteers I was soon back in a stream of people.

The butterfly section was the same for several maps so post 8 was extremely crowded and everyone was doing the same loops. Made it into the finish in 20th place, 23 minutes behind the winner, who turned out to be Marianne Andersen. She came 2nd place in the 2017 world championship middle distance (she must have felt she needed a day off from the elite category).



Map 4: Excerpt from Blodslitet. Note the huge leg from post 1 to 2!

No Routegadget here (they use Livelox) so I have had to resort to pictures of the maps. Hopefully they give a good idea of the terrain. If you're tempted, Ryanair fly cheaply to Oslo. We look forward to welcoming a WAOC contingent to a future orienteering event here or we will no doubt meet again at a UK event! Thank you for the fantastic two years we had orienteering in West Anglia.

Summer Travels! - Mike Capper

In my never-ending search for the perfect run, my summer took me far and wide. Highlights being 5 days in Poland, the Scottish 6-Days (of course) and 5 days in the Pyrenees on the French/Spanish border (mainly in soon-to-be Catalonia!!).

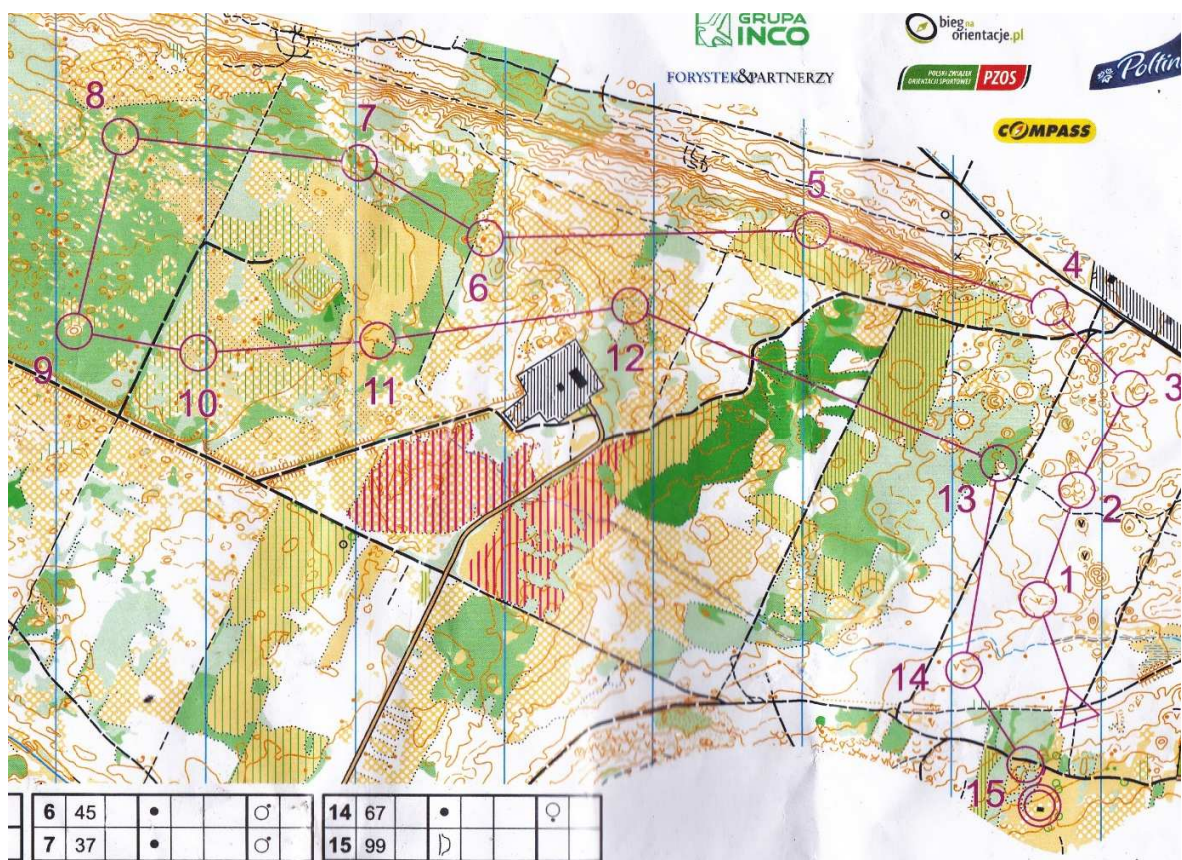
All great fun and a real mix of experiences...here are some of the best/worst parts..

The WAWEL CUP – Poland

I've been orienteering in Poland a couple of time before so knew what to expect. Poland is a great country for a holiday. Very friendly people – the organisers go out of their way to help by, for example, changing start times or allowing the only other 'Brits' at the event to use the assembly areas for their camper van each evening – very cheap (especially food and drink!) and really varied and enjoyable orienteering. The weather is usually good in July as well.

This year there was a fun day running on the Bledowska Desert (apparently the largest inland desert in Western Europe). It was certainly very sandy and made for some interesting navigational challenges.

My bete-noire was Day 2...another sandy (but not desert) day.



The first section was theoretically straightfoward – pleasant coniferous forest, small but clear features and some massively deep pits (the 'v's on the map) to relocate on, if necessary. Despite this, I made an error-laden start, meandering helplessly from hillock to hillock, with no real sense of what I was doing or where I was going.

With #6 eventually located (it took a while), we moved to the clearly most difficult part of the course. I think #9 was one of the hardest (or one of the worst bingo-controls) I have done in recent years! The 'green' was eye-poking young trees and the map was obviously 'Lidar' based, so the clearings that probably looked obvious from above were totally impossible to find on the ground. My first attempt at a compass bearing from #8 was, on reflection, always doomed to failure – I think I had hoped to

get close and then hear a beep or spot another competitor. No chance! Hitting the road beyond the control, I locate what I believe might be the small knoll (under the number 9) and headed in again...and again...and again. FAILURE! Pretty close to giving up at this stage, but decided to have one last go by heading to the north/south road and trying to head in via the two small knolls and the large semi-open/clearing. Success! 20 minutes binned. The winner did it in 4 minutes.....

This orienteering low was followed by one of the best day's racing ever! On the south of the previous day's map was a very small mined (silver) area, described thus by the organisers...

'The terrain for third stage is unique for worldwide scale. The area of 0,33 square kilometre is marked by 791 pits and depressions. It is worth noticing that almost every pit is at least 7 metres deep. In order for the map to be more legible, our mapper used symbols from 1:7500 scale (we run on 1:4000); road network not well developed, good runnability.'



It was worth going to Poland just for this. I feared it before I started, but once I had got into the map and especially the scale it was just brilliant orienteering and superb fun. Steady at the start and then lots of compass work, looking as far ahead as possible. The organisers were right...every pit was mapped and quite often you could tell from its shape, which pit it was. The large clearing in the middle of the map (near #4 and #15) was also quite handy as a safety feature!

I love this sort of orienteering – lots of controls in superbly runnable forest – and it was great to hit nearly every control spot on, with only mild meandering on #15 when I missed the aforementioned clearing that I had hoped to head off from. But this was a small error, in what was for me, almost the perfect run. ALMOST...so still searching and it was Scotland next!

The Scottish 6-Days – DEESIDE

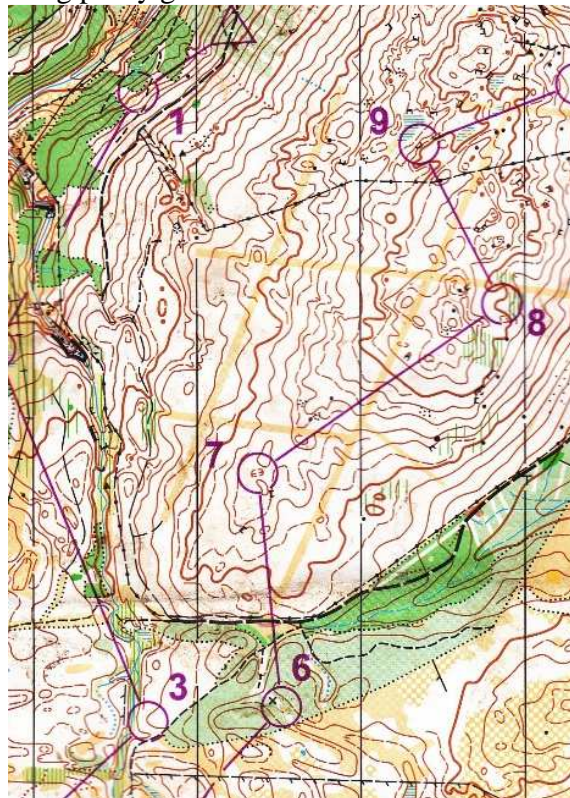
I've been to all but 2 of the 6-Day events over the years, and to be honest before I drove up to Braemar I wasn't really looking forward to this one. The weather forecast was absolutely dreadful and I was feeling really unfit! As it turned out, this was definitely one of the best!

It was extremely well organised with good car parks, superb assembly areas near the cars and plenty of toilets (these things matter!) AND the weather, especially given the forecast, was amazing. Indeed, there was only one day when I ran in rain right at the end of my Day 4 course.

The orienteering was brilliant. Very, very tough, with lots of heather and many steep climbs. There were lots of fine navigation legs but also some excellent route-choices, most of which it felt like I got right.

I quickly realised that accuracy was going to carry a premium, especially given my snail-like pace in the woods. This worked pretty well – steady as you go being the mantra for the week...avoid careless errors...and keep in contact with the map.

This all worked pretty well until Day 3. I was second off, so the early start meant that this was always going to be a discard day. There is definitely a massive advantage to starting late and on this day, early starters had to slog their way through head high bracken on the first few legs, I managed this pretty well and by #7 was feeling pretty good! Pride before and all that....

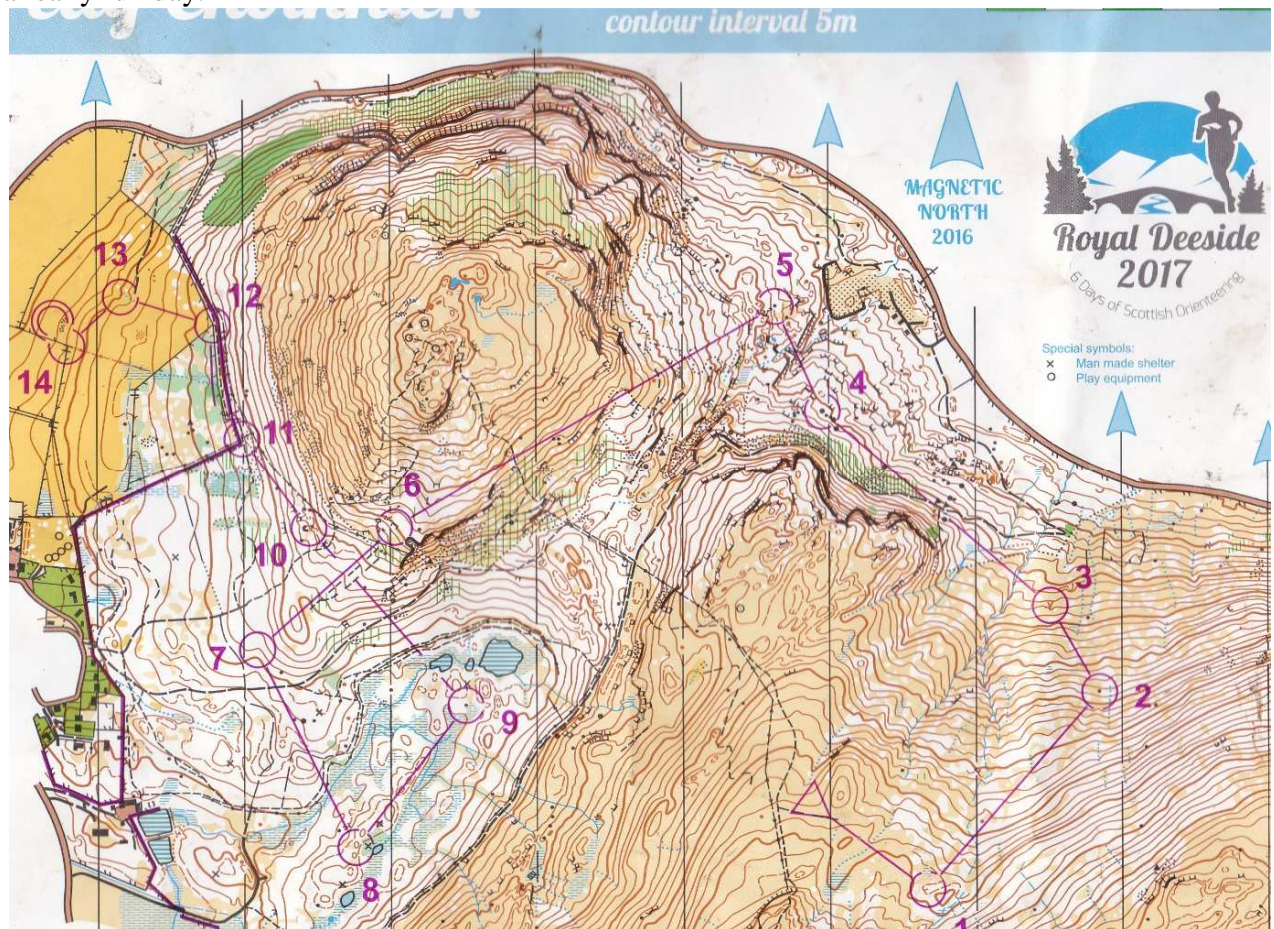


Now I think we'll all agree that #8 isn't necessarily easy but the ride is a pretty massive catching feature behind the control so even if you miss it, you shouldn't be too far off. I think it was when I hit the wall just south of #9 that I realised that something had gone wrong! Turns out that the yellow rides weren't quite as easy to see as I had expected so there was a lot more faffing around before I

eventually stumbled across a very welcome red and white flag. From there to the finish, it was downhill (both metaphorically and literally!). *Not my finest day!*

The following day was much better. A late start. Yeah! The route to the start passed my cottage so no morning panics. Yeah!

Creag Choinnich had loomed over me whenever I left my cottage and I was expecting a really tough and probably quite unpleasant day of orienteering. Fortunately, excellent planning meant that this was a really fun day.



The first few legs were brilliant. Mike Bickle led me into #1 (thanks, Mike!) and then it was compass bearing diagonally down a steep slope to #2, taking it very steady as the one thing I didn't want to do was go too low. Bang..hit the reentrant just to the west of the control, spot the long clearing and straight down to the flag. I lost my SI Card for a short while going down into the deep depression at #3 (thank heavens it is orange and highly visible!) and then messed up #4 – there were several WAOC-ers floundering around on this slope. Unfortunately none were looking for my control!

Pleased with my route to #6 – contours round to the north/south path, up to the top of the massive crags and then round the top. Another good leg! From then, it was a fast run through extremely pleasant forest, finishing just as a massive rain storm hit the assembly field.

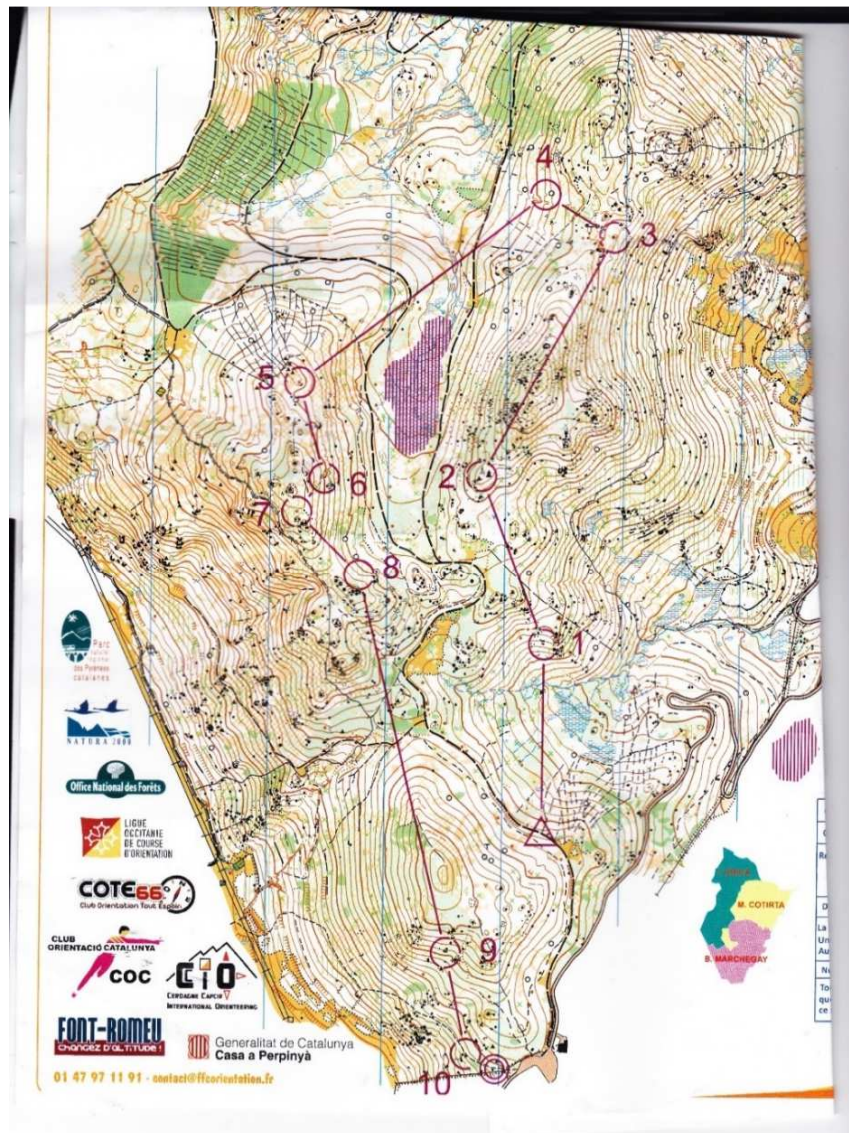
All-in-all a great 6 days of orienteering...but no perfect run...

O'Cerdanya 2017 – FRANCE/SPAIN

We were staying in a ski-chalet just above Font-Romeu. This is where Mo Farah goes altitude training, so pretty high and the races were all 'up' from there. A lack of air-to-brain is my excuse for my mediocre performance for most of the week.

There are so many 'misses' I could describe. For most of the week, I wandered round with a slightly befuddled air, not really sure what I was doing or where I was going!

It all started so badly! Its always nice to 'hit' cleanly the first control of five days of orienteering – it kind of sets the tone for the week. Sadly...I didn't quite manage this!



I was so close! Played safe...along the track, head in from the corner of the large open area. Even managed to find the 'knoll' just north-west of the control (the knoll even had a control on). So 95% of the leg perfectly completed. Now, IF I had realised that 'knoll' was the one on the map all would

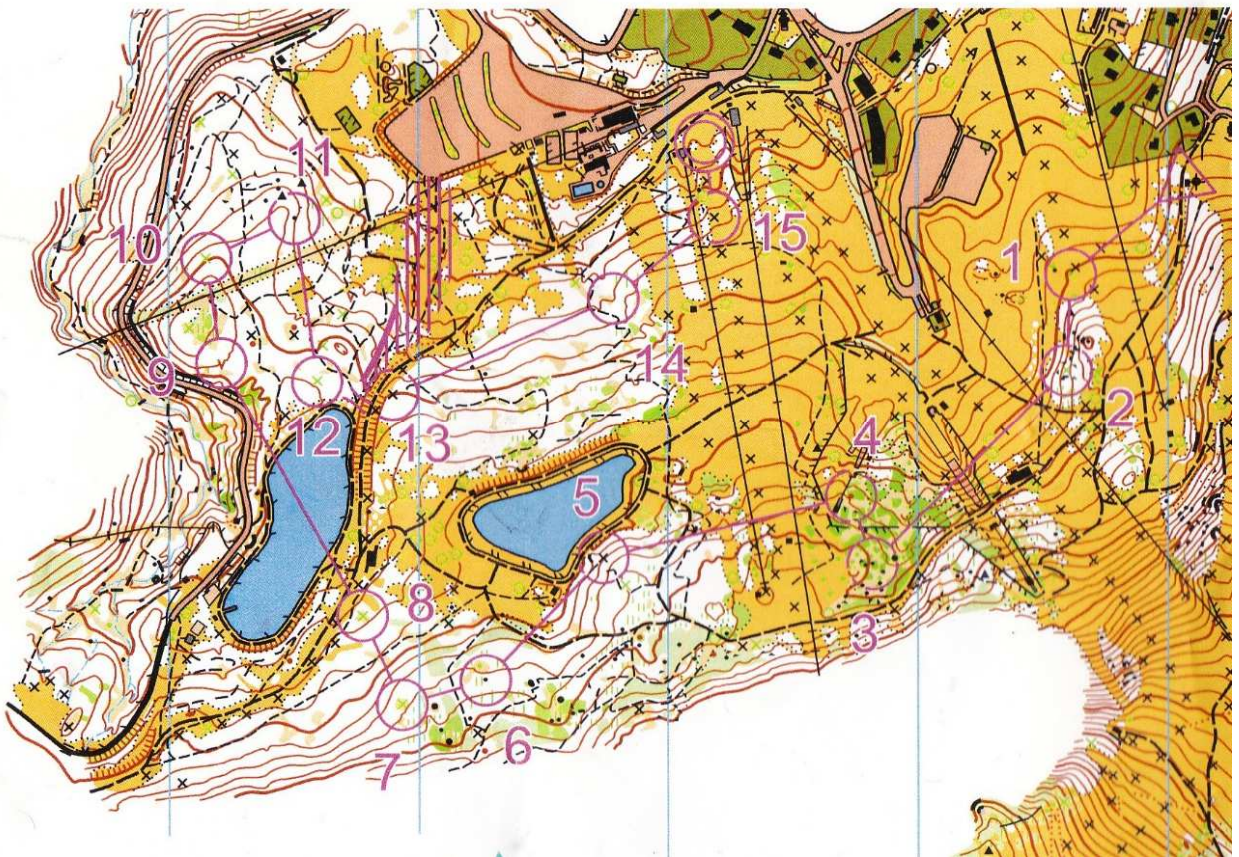
have been good. Unfortunately, the knoll didn't look much like a knoll (and don't get me started on the 'rootstocks')

It's really disheartening when you see your friend (on a different course) heading up the hill in the right vicinity of your control, hoping that they will confirm that 'this is really difficult', only to be told that they've found their first three controls and 'it is pretty straightforward'.

I found it eventually. 26 minutes. Some took longer. One of my 'rivals', Nick Campbell took 69 minutes (yes really, and he wasn't injured) – worth a look....

<http://omaps.worldofo.com/index.php?id=215099>

And that really was the story of the week. The odd triumph but usually followed by a massive fall. The woods in Spain were delightful, and the mix of middle and long races meant that there was plenty of time 'relaxation'.



The final day (above) was definitely my best run. It was set in a ski village, high up. The longest courses took a ski-lift to the start and then had a slightly dull run straight down the hill again. We started lower and worked our way along the slope. Good fun, played safe early on (but should have made more use of the paths to #3) and by #4 I was suddenly thinking I was doing okay. Time for an effort – concentrate, don't mess up...this could be half-decent...

Maybe I should have gone north around the lake to #9 but apart from that clean, clean, clean. A 'storming' sprint down to hill to the finish...and YAY at last a half-decent performance. Not the 'perfect run', but 'okay' - I'll take that.

Time to call it quits...until the next time!

The Long and the Short of It - Robert Campbell

So I arrived in Scotland for the 6-day woefully lacking in fitness. The demands of 3 intense days of competition at the JK had badly aggravated my dormant hamstring injury and caused damage higher up the leg in the 'glutes'. A right pain in the... Fortnightly physio sessions and some other non-running training meant I got to July in a decent enough shape to venture north and 'get round' (jog) the 50L courses I'd originally entered.

I took it easy on Day 1, but the terrain was unforgivingly physical and the lack of running in my legs meant I finished way down. Worse, I could feel the injury rearing itself again. I could abandon any competition and feel miserable the rest of the week *or* take the sensible option and move down to the Short course. Probably the best £10 I've ever parted with. I spent four days enjoying the orienteering and getting round the 4-5K courses in about 45 mins each day: much better for the body and soul. Not only that, I found myself up there towards the top of the field and approaching Day 6, was actually leading overall. I was self-conscious of this - I'd always taken the slightly less-than-compassionate view that Short courses are the embarrassing kid brother of the 'real' courses - the Long. Subsequently, I opted to miss the final day, partly to get home sooner, but also to try and sabotage a probable victory by not turning up in the hope that Dave Peel (another Long-course regular forced through injury to do Short) would triumph. In the end, Dave did the Long again and I 'won' the Short. Never has a first place felt less of a victory!

Why is this the case? We're brought up as orienteers to view Longer as (always) better. Anyone who is anyone (orienteering wise) does the Long. If you run Short, you're somehow a lesser beast. It's an interesting psyche. Is a sprinter seen as less an athlete than a middle distance runner? Or a marathoner the best of them all? I've noted that week-in-week-out (in Local/Regional events) most orienteers run the same course, come what may. When I was fitter (i.e. younger!), I did Brown regardless of how I felt, because to do otherwise would have been just, well, not cricket. Even the guidance from BOF suggests we should run particular courses. Yet such an approach isn't the best way to develop as an athlete. When I was a road/track athlete, I would vary competition distances to improve my condition - as short as 800 metres and as long as half-marathon. I was mostly a 10K runner, but only targeted a set number of these each season and would prepare best for them by running under *and* over distance sessions and events. In other words, variety is the spice to a better athlete.

As an orienteer, one of the disappointing features of ageing is that my course lengths have come down so dramatically. Actually I'm stronger (stamina wise) than I've ever been - it's the running speed that's declining. I would like the occasional 2-hour course! It's a shame this isn't done (unless I choose to run the odd 21E!). I wish planners would offer genuine Long-Os more often. Conversely I can (and will!) still do Green or even Short Green because it places a challenge on the body and mind that's different to a 45-50 minute course - you only have 25-30 mins and running faster invites more mistakes: mistakes are seriously costly over these shorter distances.

Interestingly I stayed at the Ballater Hostel for the week and there was a family of excellent Norwegian orienteers staying as well. Stein (Arne Olsen) was 5th on 50L and had once placed 3rd on 21E in the 1980s - clearly an exceptional athlete. He and his family offered an interesting view on the Short/Long debate. They suggested Scandinavians have a more flexible view (and will often choose Short rather than only resorting to it if injured) and even noted that it might be the British love of a

'good deal' which drove us to do Long all the time to get better value for money! This I could well believe.

So I hope we can do something about this Long/Short issue and invite more variety by lengthening (some) courses and encouraging running shorter as the training programme demands. Running the same course week-in-week-out can be monotonous but it's typically done because of the apparent prevalence of attitude amongst us (myself included!).

Parkrun and WAOC – Peter Duthie

(with apologies to those diagnosed with real Obsessive Compulsive Disorder)

When I was control hanging for the recent British Sprints heats, I found myself suffering from withdrawal symptoms from my regular Saturday 5km free parkrun fix. That I had a run in the finals thankfully spared me working out whether I could fit in a run in the Milton Keynes or Linford Wood events before or after.

I have written previously in JabberWAOC about the growth of parkrun (now at 478 events in the UK) and WAOC participants (now 34 not counting those running under other club names). Though we have sadly lost John Marshall to Glasgow, WAOC now has two club members with over 200 parkruns to their name, and Peter and Sue Woods have both recently joined the 100 club. I've not worked out how to compare WAOC with other O-club parkrun clubs (the 'largest clubs' list only goes down to 493 members!) but for a relatively small club overall I think we are doing our bit to help publicise orienteering as a (mostly) running sport. James Haynes (over the line) and Sue Woods (percentage handicap) regularly achieve top three placings to show our strength in depth. Our numbers there on the day do swing - a week ago there were (unusually) no WAOCers at Wimpole (though there were WAOCers at Cambridge, Catterick and Bury St Edmunds), but this week there were no fewer than ten at Wimpole, plus members tempted away from home at the events at Cardiff and Castle Park (the replacement for Hatfield Forest). With a new event in SUFFOC-land at Clare there always seems to be somewhere new to try.

It is chastening that parkrun's growth has continued unabated, while orienteering still agonises about event formats and apparently risks throwing the baby out with the bathwater with the likes of volunteer 'qualifications' (my old bugbear). The chart at <http://www.parkrun.org.uk/results/historicalchart/> perhaps suggests that a parkrun plateau may now be approaching, and with maturity some events (such as Hatfield Forest) are sadly lost, often victims of their own success. As events get bigger (Wimpole regularly tops 400 while Cambridge can reach 600) parkrun can struggle to find enough volunteers, so some familiar issues never go away. Age and gender demographics comparisons can be interesting – the community aspect seems to attract more young women than orienteering, but runners of all ages are also there in good numbers and valued with the handicap system. It may be hard to compete with the social appeal of a mass start and the convenience of a local event every Saturday, but it seems to be friendliness which sells parkrun to runners who might be intimidated by a club roadrace, so perhaps we need to

work even harder on building on the likes of clubnights as promoting orienteering as a friendly sport.

If you have not yet enjoyed the delights of Wimpole (or Milton, or Ferry Meadows, or Hinchingsbrooke ...) at 9.00 on a Saturday morning, then why not register for your barcode and come and join us? As parkrun areas are often O-mapped, you could even combine it with some O-technique training afterwards.

So what of this coming weekend? I have an entry for the Cambridge City Race on the Saturday, and I don't think Steve Hinshelwood has, so my narrow lead in events completed (206 playing 205) may well have evaporated by the time you read this. I'll have to console myself with different events completed (48 events currently playing Steve's 26) and aiming for my 250 club before I reach 60 or my knees finally wear out. But with 880 orienteering events now completed it would be at least $(880-206)/52$ years before my runs with a bar code overtake runs with a map and compass, even if I retired my dibber tomorrow. Perhaps I should major on the friendliness rather than the numbers ...

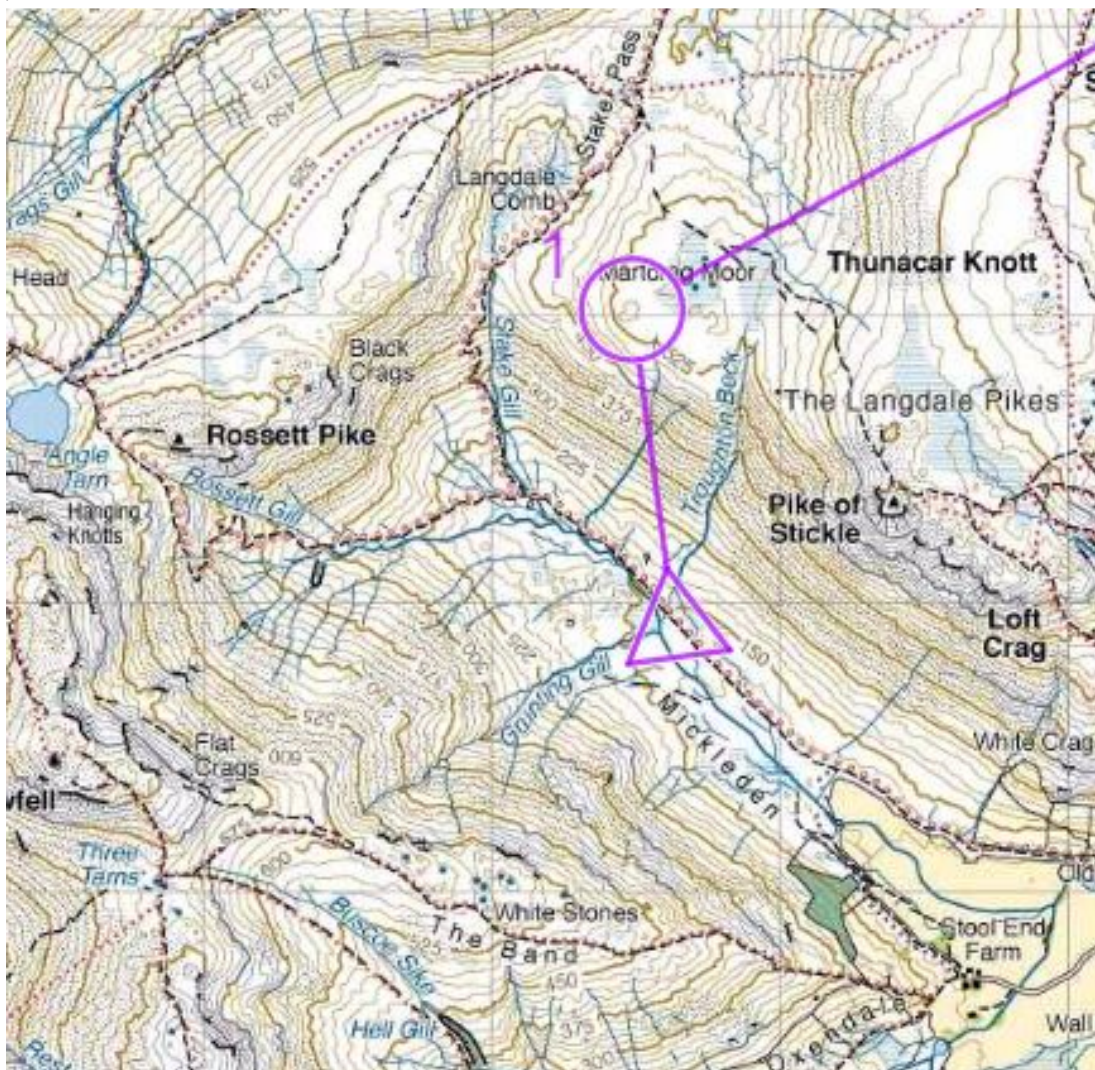
Our OMM experience - Iain Stemp (with input also from Andrew Stemp)

At the back of my mind I always had wanted to do the Original Mountain Marathon (OMM), or KIMM (Karrimor International Mountain Marathon) as it used to be called, so when Andrew suggested back in April that we do it this year then I jumped at the chance as there would be no one better to compete with. Planning then got underway. For those who don't know the OMM is a two day orienteering event in a remote mountainous area of the UK, it involves being self sufficient for 36 hours carrying all the gear needed to be out in the mountains including tent, stove, food, survival gear etc. The exact location of the OMM is a closely guarded secret until 3 months before event by which time the entries are usually full. All we knew was that it would be NW England. We reasoned that since this was to be the 50th running of the OMM and that it had not been held in the Lake District since the abandoned race in Borrowdale in 2008 that it would indeed be in the Lake District. Sure enough when it was announced that it would be held in Langdale then this confirmed our hunch and also had the bonus that it would be close enough to my parent's house (Bowness-on-Windermere) that we would not need to camp at the event centre on the Friday night. Now all we need to work out was how to get there from Cambridgeshire and for Andrew to get over from Durham but that all resolved itself. Also then the minor matter of trying to get fit enough for two long days in the fells.

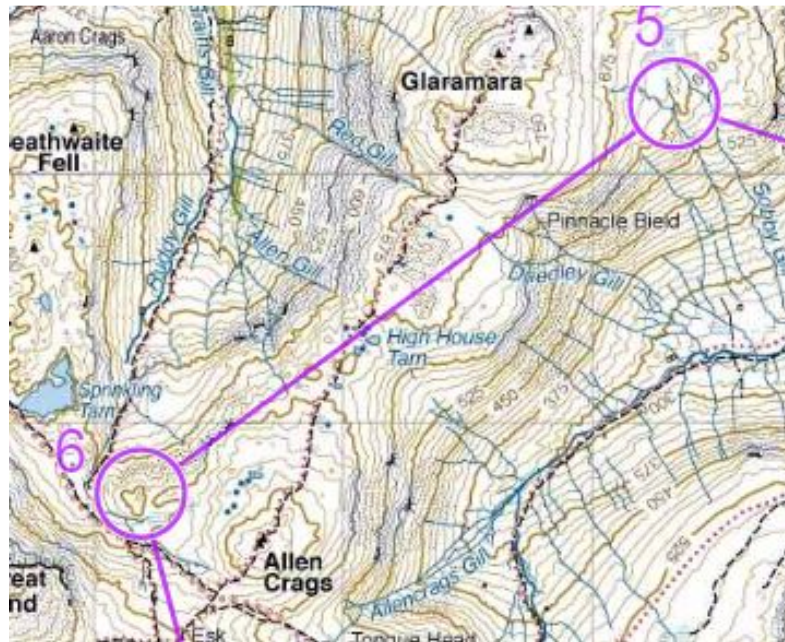
The OMM is a big event with about 1000 teams entered. Three linear courses are offered (Elite, A class and B class) and 3 score course options (long, medium and short) and a combined linear/score. Andrew and I entered the B class which they said had an approx distance of 45 km and 2000m ascent over two days.

Our training went well in the hills of Cambridgeshire (although Andrew was able to make use of the undulations around Durham during October), we then proceeded to reduce the weight of our packs to under 8Kg. This involved packing the minimum gear required adding lots of luxury items (e.g. spare socks, extra cereal bars) and then reducing it again to minimum plus necessary. The OMM stipulate a kit list which is seen as the basic necessities (spare trousers, base layer, warm layer, tent, stove, food

for 36 hrs, emergency bag, waterproofs, first aid, sleeping bag, gloves, hat). In addition to this we added 3/4 length inflatable sleeping mats, more cereal bars, buff, polythene sheet to go under tent. It was a glorious day on the Friday as we drove over from Durham, but on checking MWIS website later in the day we found out the grim truth that Saturday would have 45-65 mph westerly winds with clouds down to 400m and rain. The forecast for Sunday was looking good with a 20mph northerly wind, blue skies and sunshine. This was going to make Saturday a day of serious navigation and survival and then as long as we made it through the night without being flooded or blown away, the second day should be a lot more pleasant and navigation easier as we could see where we were going. Saturday morning we were dropped off at the head of Great Langdale (by Old Dungeon Ghyll Hotel) and then walked to the event HQ, dropped off our bags with dry clothes for our return and then walked the mile up the valley to the start. If it hadn't already been obvious to people, then it was quite clear that the only way is up and that meant an up of at least 400m whatever direction the planner had chosen.



We managed to pick a route that avoided the swathes of other starters for the first two controls, not deliberately, but we think our routes were good. The next few controls up to 5 there was one obvious route, which meant we were following a whole train of teams up ahead, something unfamiliar to us as orienteers.



Leg 5-6 proved to be the most critical in the entire race between the summits of Glaramara and Allen Crag, here we first truly experienced the extremity of mountain weather. We navigated to this control with no error, and it showed with a 5th fastest split, by far our best of the weekend. Many teams retired from the whole weekend here, it would have been a horrible place to get lost in the wind, rain and cloud. It was at this point that we were both starting to feel very cold and odd and knowing the signs of the onset of hypothermia we both stopped to put on extra layer, or buff and gloves, we then cracked on up Esk Pike, knowing this was our last significant altitude (highest point of the weekend at 885m) and hoping that we'd be out of the cloud soon.

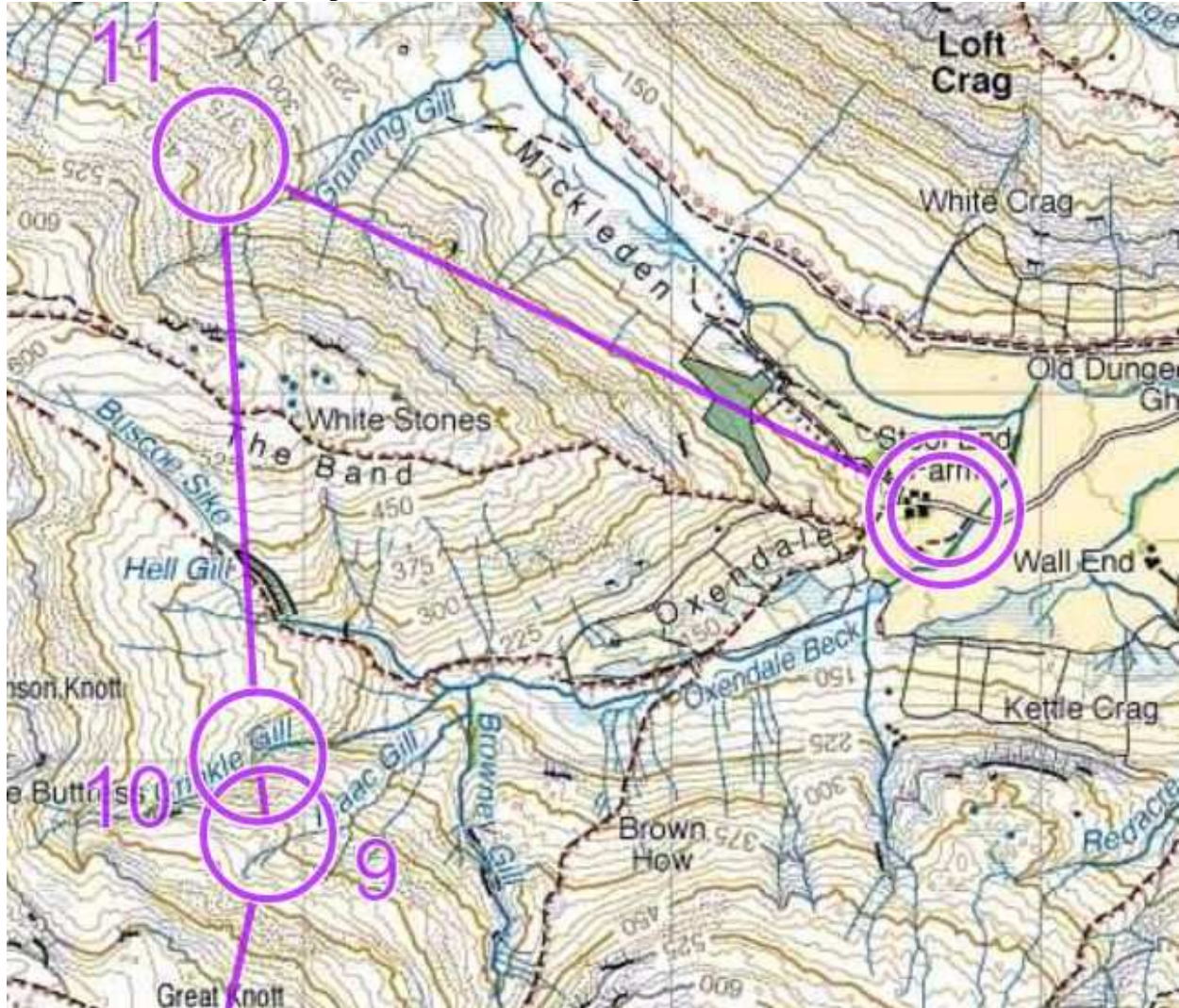
As we tired some errors crept in with our navigation, with time lost at 9 and at our last control 11 where we lost half an hour wandering in the cloud unable to relocate quickly. This was not helped by the map which had writing obscuring the contour lines of the land that we were lost on. This last control was particularly nasty given the closeness of the finish and the steep slope that needed to be climbed.



We arrived at our overnight camp after over 8 hours and quickly found a dry bit of bog and set up camp, delighting ourselves with our dehydrated foods, and instant noodles - the first instant noodles Andrew has ever had! After a very windy night which caused some of the portaloos to be blown over, the morning was clear and fairly still, but very cold when you don't have many clothes.

Setting off on the second day meant coaxing the legs to work again and although there were no clouds in the sky Andrew didn't warm up properly until 45 minutes in when we got into the sun.

Navigating was a lot easier since we could see exactly where we wanted to head a lot of the time. We think that our route choices for the whole day were optimum and we executed them well, but it's quite easy when you have so long to look at the map. We reached controls with a similar group of people for most of the day, but it was only on half of the controls that we were following/being followed by others. On the way to the pre-penultimate control (control 9) we could see the finish down the valley but we still had a brutal 11th and final control to do which involved a very steep climb and descent in sight of the finish



We finished the weekend by running the last mile along the valley to the finish, some of the only running we did all weekend. Cowbells, cheers and a few spectators greeted us at the finish line,

I was exhausted and Andrew felt like he could do it all again.

Overall we finished 28/156 starters, and 3/17 in our class, 100 teams retired showing how challenging the conditions were, and that we're proud to have finished it together.

Day one route: <http://www.omm.routegadget.co.uk/rg2/#96&course=3&route=50142>

Day two route: <http://www.omm.routegadget.co.uk/rg2/#101&course=3&route=50093>



"In the last kilometre"

The numbers:

Day 1: Course details: 20.9 km, 1680m ascent. We did 26.20 km 2025m ascent in 8:18:55 29th/75 finishers (149 started)

Day 2: Course details 17.8 km, 1340m ascent. We did 22.63 km 1585m ascent in 7:01:38 32nd/59 finishers (84 started)

Overall: **48.82 km, 3610m ascent in 15:20:33** to finish 28th out of 55 (156 teams started). **We came 3/17 in the Family Generation Category.**

Best times for our class were 5:57:09 (day 1), 4:55:26 (day 2) and 10:55:53 (overall)

The elite course was won again by Duncan Archer & Shane Ohly with Steve Birkinshaw & Andy Berry in second [10 finishers out of 42 starters].

The A course was won by Quentin & Zoe Harding (SROC) who also won the Family Generation category in A class. Second were John Ockenden (ex-CUOC) & Iain Embrey. Matthew Vokes (ex-CUOC) was racing with his younger brother and were in 5th place overnight but failed to finish Day 2 due to Matthew being ill. [8 finishers out of 76 starters] The Long Score [7 hrs day 1, 6 hrs day2] was won by Nick Barrable and Darrel High.

"Overall it was an enjoyable weekend and a great experience of being out in the mountains in an area I know well. Even though I have walked, run, biked extensively in the Lake District for over 44 years, the route we did took us to parts that I wouldn't normally go to and discovered some interesting areas, steep uphill, steep downhill, bogs that Andrew pulled me out of! It was a privilege to be able to do an event like that in an area so good with a brilliant partner.

So would I do it again? I would like to think I would be able to, but have no immediate plans to do so. If I were to do it again then I would need a new partner as Andrew needs to be able to compete with someone who has similar ability to him (which if it had been the case this year would have seen him challenging for top spot)."

Ursula's (M)utterings

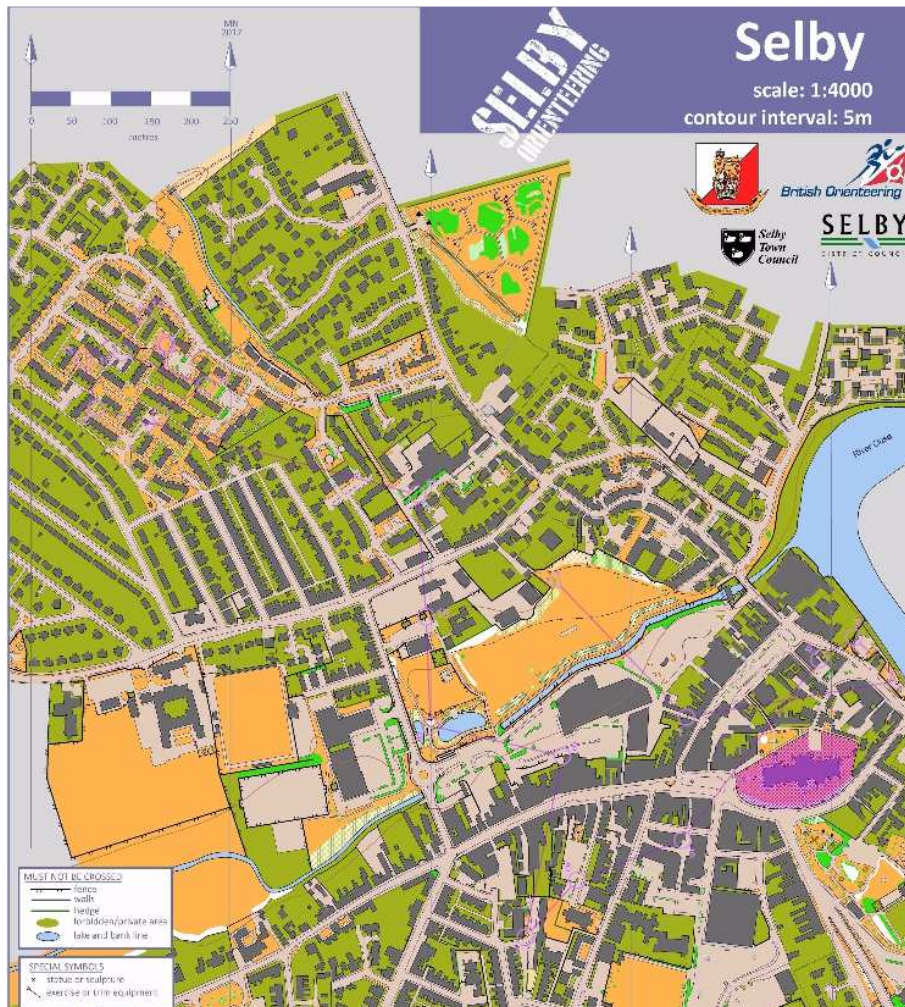
I have been travelling as usual. The Caddihoe Chase was held on the sand dunes at Hoyle, with a station and a Premier Inn more or less within walking distance of the area. I liked this year's event because it was accessible by public transport (+ 1 taxi on the Sunday) and it was not a Chase. When you are slow on the first day you wait for ever to go out on the second day and then you are slow again with no-one around so it can be very lonely! This was a middle race on the Saturday, with an excellent urban race, really a longish sprint, in the evening (my best ranking points here) and then a long race on the Sunday. I was offered a lift to Camborne for the Urban and then on to find somewhere to eat, meaning that I was not left with a choice between Brewer's Fayre and Macdonald's for my evening meal! I have good friends. The organisers and those who were camping had a rough time on the Saturday night as it blew a gale that flattened the registration marquee and some of the tents but I was OK in the Premier Inn!

On to the London weekend. Katrin Harding (formerly CUOC) planned Friday evening sprints at Wapping. What a transformation from my horrendous experience with the London City Race in Wapping a couple of years ago! That was dire, this was extremely good – just shows what good planning can do. The next day I had booked 5 Oxburgh/Rowes on to the London City Race in the Barbican but in the end only Rachel made it as Ron is waiting for another back operation and the grandsons had other commitments. The shortest course was again really good. I ran out of oxygen supply to the brain on a longish leg, leading to less than optimal route choice – well, just faffing around trying to work out where I was. In the end all was revealed by which time I was really tired. At least I managed to get back to the Finish from the other side of the water without any false starts. Maybe I'll get it all right next time we are there. Since I had been away on Sundays so much I decided not to do the Ultra Sprint, a particular regret as I am very keen on ultra sprints and I was not there to see Ben Windsor, formerly CUOC, now working on the Science Park and still involved in Wednesday training nights, win the M Open

An excursion up to Attermire and Malham by public transport was quite a challenge but then Ruth Ker of CLARO (formerly one of the gym kids in the club I ran in Oxford) invited me to spend the Saturday night with her and Tamsin in Harrogate. So off to Settle by train on Friday. On Saturday morning I set off from Settle up to Attermire, not forgetting my mini control kite on the back of my rucksack, and cars were screeching to a halt to offer me a lift. Orienteers are very nice. Attermire was pretty nice – my O nothing to write home about. Fortunately as Ruth was driving me through Settle on the way to Harrogate and I of course was talking 19 to the dozen, we went past the hotel where I had left my luggage and I was reminded that I needed to pick it up! Malham was a different kettle of fish. My obvious route to no 1 went over the limestone pavement and took me 32 mins – and I went straight to it. (I could and should have gone round.) I struggled to 2 that I could see from 1, looked at my map and decided that it would be a physical but not an orienteering challenge and gave up. I will not go to Malham again. Sitting eating lunch I encountered an O traveller friend from DFOK who had discovered that there was a Sunday Only bus that stopped just outside Assembly! I had not found that. Ruth took me back to Harrogate and then to the train.

I went to the British Sprints, where I helped (a little) on the Start and ran both races. I ended up 4/4 with 1 poor route choice – think I could have scraped a 3rd. Either way, I got ranking points out of the Final.

My last excursion was to Selby on Saturday evening, ready for the Sunday Urban Race. Selby is a lovely town with an amazing Abbey that is 11th century at the bottom (beautiful Norman W doorway) and somewhat more recent as you go up.



I met Ruth Ker who had taken a no of 14 year olds from CLARO and AIRE and who was critical of her Wvet course, particularly the necessity to cross a piece of rough ground twice. I loved mine: only the first control was boring and after that there was a continuous challenge, with the necessity to run one reasonably tricky leg while working out how to tackle the next, equally tricky, leg. After no 11 the course went into a housing estate with lots of uncrossable walls so the end controls were like a class sprint with everyone tired after running the early part of the course. This was my best effort for some time. <http://www.ebor.routegadget.co.uk/rq2/#123&course=4>

Next up is the Cambridge City Race planned by a CUOC Irish international runner so it could be good.

I have just heard that the EUOC Big Weekend will have an indoor sprint race in addition to the City Race. I'll be there – what about you?

Quiz Solution: bezel, crag, thicket, wood, orange, planner

Date for your Diary: 28th April 2018: Come to TrailO, both PreO and TempO. in **Meldreth** for the afternoon and end with a BBQ in **Anne Braggins'** garden. Full details later.

BO Ranking list: at <http://www.britishorienteering.org.uk/page/rankings>

Events

within 100mile radius of Cambridge which don't clash with **WAOC and EAOA events**

A full list of events is available on the British Orienteering web site where you can find more

information on the events listed below. **Always check** www.britishorienteering.org.uk **before travelling**

Date	Event Name	Level Club	Ass.		Venue	Nearest Town	Grid Ref.
Sun 12/11/17	NOR colour coded	Regional	NOR	EAOA	NT Blickling Estate	Aylsham	TG175285
Sun 19/11/17	WAOC colour coded event	Regional	WAOC	EAOA	Mildenhall South	Mildenhall	+ Junior training
Sun 26/11/17	Hylands Park, SOS Colour Coded & ESSOL	Regional	SOS	EAOA	Hylands Park	Chelmsford	TL680048
Sat 02/12/17	Southern Night Championships	National	TVOC	SCOA	Penn and Common Wood	High Wycombe	SU923957
Sat 02/12/17	HH Saturday League & Youth League	Local	HH	SEOA	Verulamium	St Albans	TL142064
Sun 03/12/17	SCOLA TVOC Level C & Regional Event	Regional	TVOC	SCOA	Penn and Common Wood	High Wycombe	SU923957
Sun 03/12/17	SUFFOC West Harling	Regional	SUFFOC	EAOA	West Harling Heath	Thetford	TL962835
Sun 03/12/17	East Midlands Urban League	Regional	NOC	EMOA	University of Nottingham & Wollaton East	Nottingham	
Sat 09/12/17	WAOC Night Event	Local	WAOC	EAOA	Wimpole Estate	Arrington	
Sun 10/12/17	NOR colour coded & EAL event	Regional	NOR	EAOA	Lynford	Thetford	TL817990
Sun 17/12/17	Regional Event	National	SN	SEOA	Ash Ranges	South East	
Sun 17/12/17	East Midlands League	Regional	LEI	EMOA	Outwoods	Loughborough	SK516176
Sun 07/01/18	East Midlands League 2018	Regional	NOC	EMOA	Strawberry Hill	Mansfield	SK580600
Sun 14/01/18	NOR colour coded	Regional	NOR	EAOA	Horsford Heath	Norwich	TG184176
Sat 20/01/18	TVOC RAF Halton Urban (C) (SEOUL)	Regional	TVOC	SCOA	RAF Halton & Wendover Woods	Wendover	
Sun 21/01/18	HAVOC Harts Wood SWELL event	Regional	HAVOC	EAOA	Harts Wood	Brentwood	TQ606929
Sun 28/01/18	Baddow Ridge, SOS Colour coded and ESSOL	Regional	SOS	EAOA	Baddow Ridge	Chelmsford	TL770063
Sun 11/02/18	WAOC High Ash	Regional	WAOC	EAOA	High Ash	Thetford	TL813968

