The La Sportiva Lake District Mountain Trial, Sunday 12th September 2021

Planners' Report

Three courses were provided:

Classic: 27 km 2500m ascent 7 controls

Medium: 19 km 1600m ascent 6 controls

Short: 15 km 830m ascent 6 controls

Bad Weather courses were available, but not used. These were:

Classic: 20.0 km 1300m ascent 6 controls

Medium: 16 km 1190m ascent 4 controls

Short: 11 km 645m ascent 5 controls

This was supposed to be the 2020 race, but it got cancelled, like everything else that year.

Choice of venue, and constraints on courses

The Mountain Trial had never been to the Loweswater Fells (although it did visit Melbreak in 1978) so I fancied using the multiple ridges and valleys they offer for some interesting route choices. First choice of venue was the Ennerdale Show Field at Leaps, with good access to the fell and proven good parking. However, a preference was expressed for somewhere with a building for use by the organising teams, so we moved to Loweswater Village Hall. This has been used many times before for fell races and navigational events.

After some comment about 'orienteering' type controls at the 2019 event, I wanted to get back to bold route choices and a minimum number of controls. Controls would be on obvious features. This was largely achieved. The checkpoint on Hobcarton End was moved off the ridge to avoid an increasingly popular mountain bike and walking route.

It soon became apparent that the Loweswater Fells offer too small an area to contain the Classic course. I then looked for options to extend to Ennerdale. Crossing the Ennerdale valley made the course too long, and using the Ennerdale north ridge severely limited the route choice options. We had to go to the Northwestern fells, thus revisiting some ground from 2002. To avoid having two major valley crossings, we had a long run out to get started.

The Loweswater Fells offered enough scope for the Short course. This was kept fairly straightforward, to be suitable for people new to navigational events on the fells.

The Medium course was a bit of a compromise. Too long for the Loweswater fells alone, but a bit short to justify the big valley crossing.   I hope there wasn't too much valley running for the competitors.

The bad weather courses were planned to avoid running big ridges (though one did have to be crossed) and as far as possible stream crossings. There was no attempt at excellence in route choices.

<u>Maps and Printing</u>

Maps were prepared using the same principle as in 2019, and using some of the symbols developed by Dan Parker. Further work was done on vectorising logos, to make them scalable. The underlying map as a 600dpi tif file provided by Harvey Maps. Tourist Information and some names were removed by Harveys. A missing Public Footpath at the north end of Crummock water was added at our request. Map corrections, map furniture, and courses were added using OCAD. The basic map was 1:40000, enlarged to 1:30000 for the Medium and 1:25000 for the Short. All were made to fit an A3 sheet. The maps were saved as .pdf for the printer. As in previous years, the maps were printed by BML on waterproof paper, laminated on both sides. Purple cross hatching (orienteering standard) was used for out of bounds, as in 2019. The amount of out of bounds meant this was rather heavy, and obscured a lot of detail. The previous practice of using more widely spaced vertical lines may be preferable - although the visual impact is much less. There is a balance to be struck.

There were some major valley crossings. Harvey maps aren't designed for detail navigation through the fields. Now that Ordnance Survey are making their data more freely available, there may be an argument for moving back to the OS.

In addition to the three race maps, an 'all controls map' and a lower resolution map for use with Routegadget were prepared. Some display copies enlarged to A2 were also made – a blank at each scale and one with courses and planner's route on for each one. 12 maps in all. In addition, portions of the map were extracted for use by the marshalls and Raynet.

As in previous years, the maps were printed by BML on waterproof paper, laminated on both sides. The entry system gives a closing date, and says that late entries will be accepted up to five days after that, subject to the availability of maps. We had to put the print order in immediately after the closing date, so we added 15 for each course to the order. This was probably excessive, especially given the number of non-starters. This was an unusual year, with many unable to attend because of Covid-19 restrictions. We printed 127 Classic maps (86 starters), 78 Medium Maps (46 starters) and 134 short maps (101 starters including both members of pairs). In addition there were 10 blank maps and 10 'all controls' maps. We could have managed with a much smaller print run, but it is difficult to know what the no-show rate will be.

For Routegadget, a single blank map at reduced size (jpg quality 50%, resolution 150 dpi) was prepared. Two Purple Pen files were made – one for the normal courses and one for the bad weather courses. Sport Ident sorted Routegadget for us.

<u>On the fell</u>

Once the courses were planned, I visited all the checkpoints over about seven visits. This was fairly hard work on my creaky knees. All checkpoints were photographed and recorded by GPS. Five of the less obvious sites were marked with orange tape, but only one of these tapes survived until the event. I was glad of the GPS backup when putting the controls out.

A late visit to the Newlands valley showed that a crucial footpath for one of the route choices does not exist on the ground (or on the OS or definitive map). The map was corrected, but it damaged one of the major route choices (Classic 3 to 4)

The Controller, Mark Seddon, had an epic day out testing the courses. He made a couple of useful suggestions. After implementing them, the courses were finalised. Mark did feel that the courses might be a bit long.

<u>Calculations</u>

Courses were made within the parameters of the entry form, for distance and climbing.

I used a spreadsheet that takes account of height gain, distance, and rough ground. Speed per km and per 10m climbing were calculated as an average from the last five events. They were remarkably consistent over all the events for the Classic and the Medium. Short was more variable.

- Classic: 5.3 min/km, 0.3 min/10m climb
- Medium: 5.4 min/km 0.4 min/10m climb
- Short: 5.5 min/km, 0.5 min/10m climb

before adjustment for rough ground and steep descents.

Alternative route choices were assessed using this method, and the courses rebalanced.

After the Controller expressed concern that they were a bit long, I applied the same analysis to the courses for the last five events for which I had data, and the calculations gave a good approximation to the actual winning times. This gave confidence that the courses weren't excessive.

The same techniques were used to work out the checkpoint opening and closing times. Ideally checkpoints would close after the last runner had been through. Looking again at previous events, the last finisher on the Classic and Medium courses takes about twice as long as the winner. The Short course is very variable, but the last runner takes about two and a half times the winner's time. This is a bit of a circular argument, as slower people tend to get timed out anyway, but gave a basis to work on. Applying these ratios to the expected winner's time showed that if the slowest people started last, they would finish long after the race closing time. The race entry system says *if you might take a long time you must request an early start.* We had to hope that the slower entrants chose wisely.

For each of the manned controls a file was created containing opening and closing times, a map fragment, gpx file, and photo.

<u>Immediately before the event</u>

Printing of the maps was on a fairly short timescale. The print order was put in on Tuesday 31st August, after entries closed on 30th August (Bank Holiday). This gave 9 working days for printing, laminating, and delivery. Two nominal deadlines were missed due to the company doing the laminating being busy. The maps arrived on the Tuesday before the event, in time to get some out to the marshalls who would go straight to their checkpoints.

Control boxes and a few stakes were collected from Sport Ident at Shap on the Wednesday.

14 controls were used, including a Bad Weather Control. The latter was not put out, as the forecast was good. Most of the controls were put out in a long day (13 hours) on Friday. The last three remoter ones were put out on Saturday (7 hours) and then the two marked routes to map issue and the run in were taped. This was quite onerous – more time should have been taken. At 0630 on Sunday the last control on the fell gate was given a final check.

The Controller visited all the controls on the Saturday – another big day.

<u>On the Day</u>

After two wet days on the fell in the clag, it was a relief to see the rosy dawn over the Loweswater Village Hall. A clear day makes the navigation much less challenging, but it's a lot pleasanter for the competitors and far less worrying for the organisers.

75% of the Classic starters completed the course, 90% on the Medium, and there was only one non-finisher on the Short.

All competitors were accounted for within half an hour of the courses closing.

<u>How did the courses work out?</u>

Course	Winner's time		
	Actual	Predicted	Historic Average*
Classic	4:29	4:39	4:33
Medium	4:08	3:39	3:56
Short	2:25	2:25	2:45

*Average is average of the last 5 valid years: 2014,2015,2016 2018,2019 for Classic and Medium; 2012, 2015, 2016, 2018, 2019 for short

Winning times came out ok. The Classic was about 10 minutes faster than I predicted, and the Short was exactly the predicted time. The Medium came out rather long, apparently because I overestimated the speed for the long valley crossing.
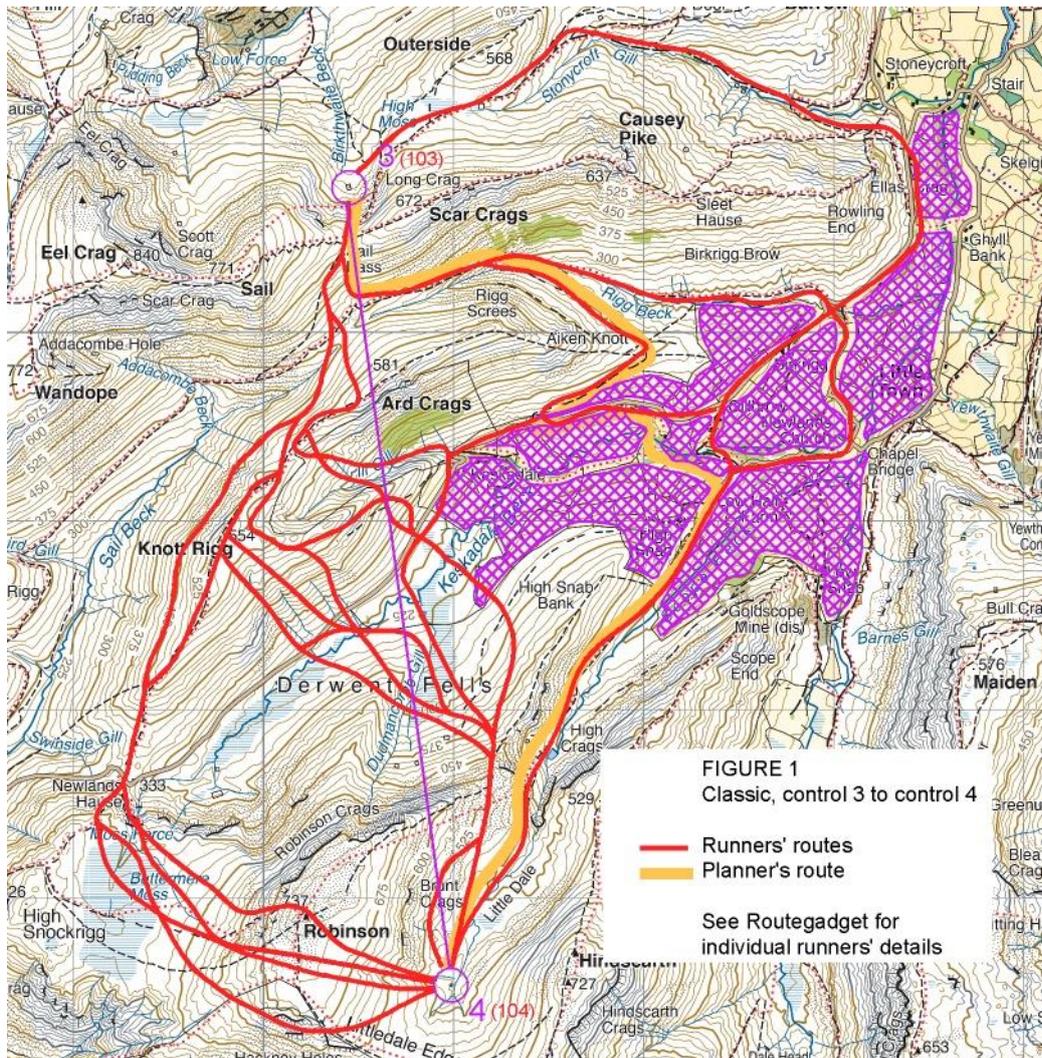
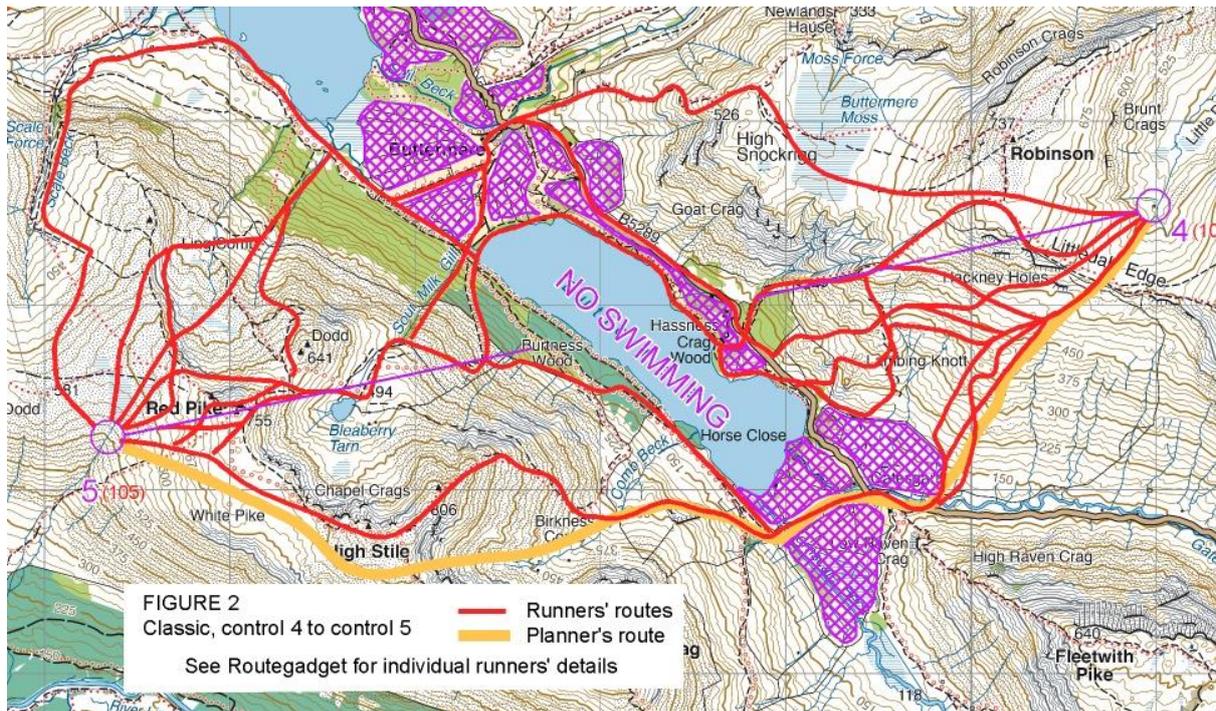This discussion is based on those runners who'd put their courses on Routegadget two days after the event.

On the Classic and the Medium, the choice on the leg from 1 to 2 was a long hard traverse, or a lot more climbing and then a ridge run. Contouring looked best on paper, but only by about 2 minutes. Out of 40 routes on Routegadget, 38 ran the ridge.

The two courses were still together from 2 to 3. This time the theoretical best route was a combination of an early ridge run and then a traverse – about five minutes faster than direct through the valley. All but three chose this route, with a variety of interesting traverses from Coledale Hause.

The Classic then went off across the Newlands valley to Little Dale. The less attractive valley route through the fields looked a bit quicker, but there was plenty of good running on the ridges. The difference here would be the weather. Only 4 went through the fields, and there was an even split between those going over Robinson or through the upper Newlands valley. See Figure 1. To a course planner, this sort of pattern vindicates all the time put in trying to balance the choices.

FIGURE 1
Classic, control 3 to control 4

Runners' routes
Planner's route

See Routegadget for individual runners' details

There was a lake in the middle of 4 to 5. It was probably faster to go left, via Gatesgarth, and up Birkness Combe. No one took this route. One went over High Stile, a few over Red Pike, and a few went for rough routes farther west. See Figure 2.

FIGURE 2
Classic, control 4 to control 5
— Runners' routes
— Planner's route
See Routegadget for individual runners' details

The last real choice was from under Red Pike to Whiteoak Moss. There's a nice line under Floutern Crag, but in good weather I thought it would be better to blast along the ridge. No-one did.

After leaving the Classic, the Medium runners had to choose between ridge and plummet into Addacombe Hole, a seriously steep traverse, or drop down and back up again. Ridge was better, but no one went that way. A lot of people had a miserable time on the traverse.

Medium then had to choose between left or right round Crummock Water. Swimming was not an option, especially after a fatal accident in Crummock earlier in the summer. Left was about 10 minutes faster, and much more attractive than going back through the start. I spent a long time trying to make this leg better, but it was always a compromise. On the day, everyone went left.

The Short Course was independent of the other two. It was designed to be suitable for people who hadn't done much fell navigation. The most significant route choice was to number 1, with three ways out of the valley. The best way for a strong runner was out of the SE end of Holme Wood then up the NE spur of Carling Knott. No one went that way. After that, the choices were between easy ridge and fence running, or more complex traverses. Good navigators were rewarded with faster times on the traverses.

So as a planner I was rewarded with a lot of variation of chosen routes and a few compliments afterwards. It wasn't necessarily wise to greet the bloodied and battered runners right on the finish line, though!

Acknowledgements

It all went very well, partly because there is such a depth of experience and knowledge to draw on. Thanks particularly to:

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Pete Nelson

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