What's different about Sprint

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JK08 Sprint Planner

Presentation given to 2008 Major Events Conference at Lilleshall – updated February 2009

Sprint features

- Winning Time 12 – 15 minutes
- Map – scale is 1:5000/4000 plus 2.5m VI
- Map – ISSOM and not ISOM
- Terrain – predominantly park or urban maybe with some (fast runnable) forest
- Start interval 1 minute
- Controls are technically easy but route choice is difficult requiring high concentration
- Running is “very high speed” – NB seniors?

The majority of this presentation relates to “IOF-style” Sprint races. However, it is recognised that many events in the UK are being planned with longer winning times than 12 -15 minutes and, for the purpose of this presentation, will be referred to as “Urban” races. More about this appears later.

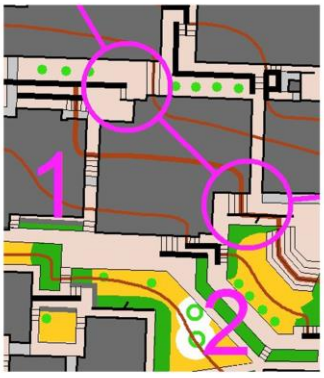
Map scale: an enlargement for 45+ competitors may be appropriate, e.g from 1:5000 to 1:4000 or from 1:4000 to 1:3000; the VI can be 2.0 m also

Terrain: Sprint is meant to be **different** from Middle and Long so it is inappropriate to hold a Sprint race in conventional forest terrain (where it would become merely a short Middle race)

Seniors: Sprint is “sprint for the mind” for those whose legs don’t move as fast as they used to! It is the sheer rapidity of decision making which makes this discipline “Sprint” rather than the pace at which the runner moves.

Planning issues

- Minimise legs with obvious route choice



- Clockwise route = 63 m
- Anticlockwise route = 91 m
- Difference obvious to runners who will take the clockwise route, especially as they are likely to be arriving at 1 from the west and will carry on the same direction

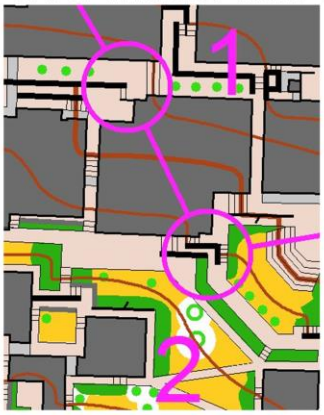
For the JK Sprint, my aim was to make **every** leg a route choice leg. I think I got close to this.

Any leg which had little or no route choice was regarded as a poor leg and was rejected.

The next slide shows a better leg from the same number 1.

Planning issues

- Minimise legs with obvious route choice (2 now inside wall corner)



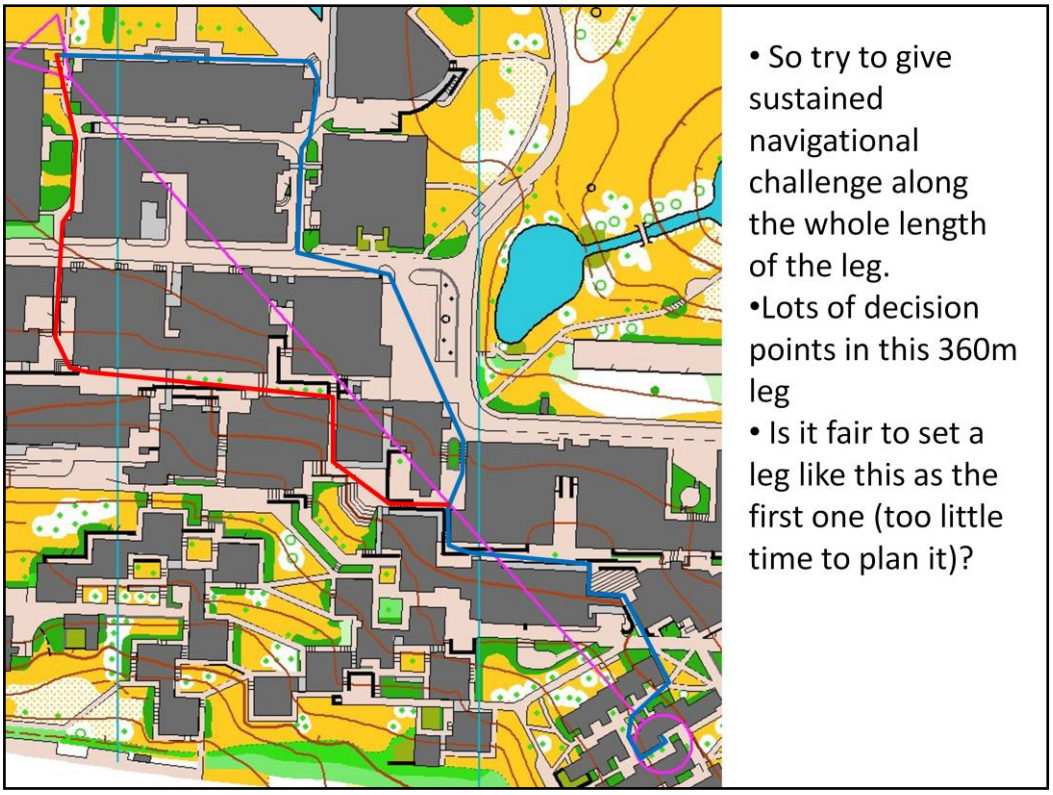
- Clockwise route = 91 m
- Anticlockwise route = 77 m
- Difference not so obvious to runners, especially as best route involves 145˚ direction change at 1
- "The most obvious way out from a control should not necessarily be the most favourable one" - IOF

Sprint planning in urban terrain involves constantly nudging control circles around to maximise route choice challenge

Long legs

- Are boring if there's not much navigation

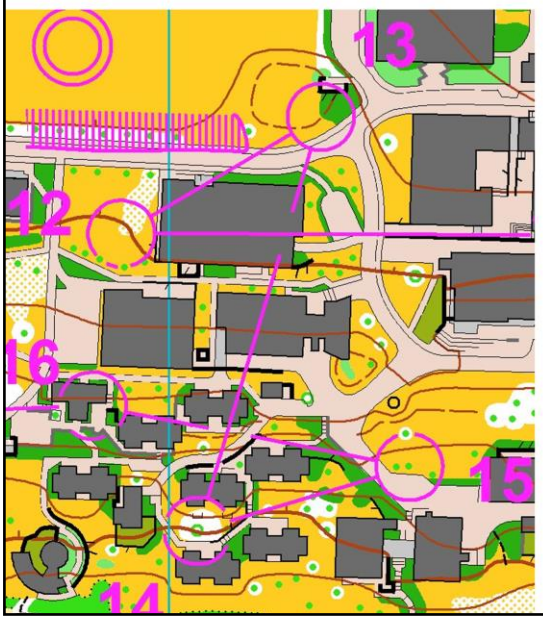
Apart from deciding whether to go north or south of the large building, there's little challenge in this leg.



A much better “long” leg.

However, it was criticised by some as giving too little time to pre-plan the route (the start triangle was only 30 m or so from the map delivery point). In retrospect I think I would have given a longer time for this. It’s a moot point however ...

Direction changes



Crossovers give:

- Big changes of direction
- Greater use of small areas/best parts of terrain

But:

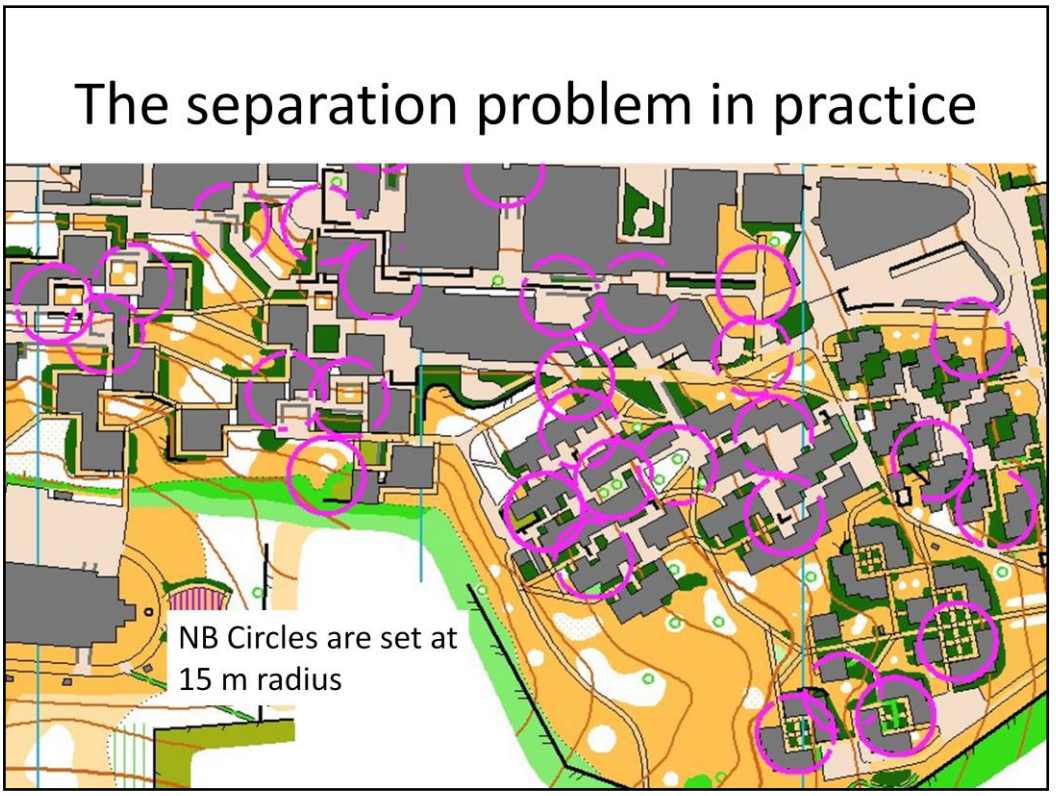
- Increased chance of competitor collision!

Big changes of direction give a much greater mental challenge and are definitely encouraged. I had crossovers as above on every course at JK 2008.

Close controls

- IOF: “controls shall not be sited within 30 m of one another” (if map scale not 1:10000 or 1:15000)
- BOF: as IOF plus “controls within 60 m of each other should not be positioned on similar features ...”
- But Rules not written with Sprint courses and maps in mind!

A Sprint map at 1:5000 has features three times further apart than the same map at 1:15000 scale. In addition, Sprint maps are ground surveyed to higher accuracy than forest maps. It doesn’t make sense that the same control separation Rule applies to these widely different scales.



With 10 courses to plan in the same small area and for 1500 competitors too, it was important to use more control sites than had the event been much smaller. In addition, the exact placement of sites is critical to providing good route choice and this often means that controls need to be closer than the Rules allow.

The map shows a selection of the controls used at the 2008 JK Sprint, modified so that the circles have a diameter of 30 m. This means that where two circles overlap, the control separation is less than the minimum 30 m allowed by the 2008 Rules. This happens 10 times approx above yet, in each case, the sites are clearly distinguishable and cannot be confused with one another. They can be navigated to with 100% confidence that the right site has been reached.

The problem is even more dramatic for an event such as WMOC 2008 in Portugal where some 3000 runners competed on 30+ courses on each of two days!

Solution

- Rules Group deviation: controls on dissimilar features could be 15 m apart
- 36 of the 57 JK08 control sites used were < 30 m from nearest adjacent control
- Detailed analysis of mispunches showed rate to be no different from similar Sprints with “proper” control separations
- Conclusion: fairness not compromised

Rules Group approved a request for a Rules deviation, allowing a halving of the separations proscribed by the 2008 Rules

Maximise the mental challenge

- JK08 M21E – 20 controls in 2.7 km
  - Average leg length = 130 m
  - Approx 5 to 7 decision points per leg, or a decision point every 20 to 30 m! (6 to 9 s at elite pace!)
- Sprint = sprint for the mind not necessarily for the legs!

In general, more controls means more challenge!

Other issues

- Safety – is city Sprint an accident waiting to happen?
- Control site
  - Protection – might need guards in public places
  - Mounting – stakes don't go into concrete
- OOB – how to minimise runners going OOB
- Competitor unfamiliarity with ISSOM
- Few Controllers know Sprint

Safety: JK Sprint Guidelines specify an environment in which traffic can be controlled or is at a minimum.

Control site mounting: JK 2008 used wooden tripods into which conventional SI stakes could be secured

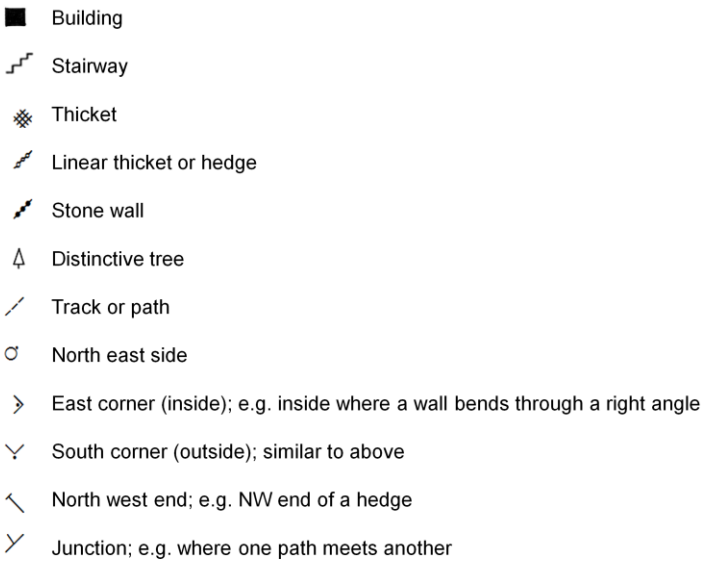
OOB: the **big** issue! If a competitor can cross an impassable barrier then they will, so tape all hedges, walls, etc to deter this. Big competitions will have marshals in the terrain who could record bib numbers of those going OOB

JK programme/ISSOM symbols

Symbol	Colour	Meaning
	Black	Passable fence
	Black	Impassable fence
	Grey	Passable wall
	Black	Impassable wall
	Medium grey	Building – not to be entered
	Light grey	Canopy – may be passed under
	Black	Steps of a stairway
	Green/black	Impassable vegetation – not to be crossed
	Green/yellow	Forbidden access (as for "forest maps")
	Green	Large tree (more than 0.5 m diameter)
	Green	Small tree (less than 0.5 m diameter) or bush

These were the ISSOM symbols used at Guildford for JK 2008 and which are different from ISOM symbols. They were printed (unfortunately in greyscale) in the programme to give competitors maximum chance of familiarising themselves with these symbols beforehand.

JK Course 9 (M/W10A) symbols



We decided not to supply written descriptions for the TD2 course sp we printed all the IOF symbols used on this course in the programme in advance.

OOB

- Plan to minimise temptation
- Tape all OOB
- Reinforce what is OOB in programme

  JK programme extract:

  "As above, no impassable wall or fence may be crossed, neither may vegetation (often hedges) mapped as green/black be crossed – even if there appear to be passable gaps therein. Also, areas mapped by a green/yellow (olive green) "settlement" colour are also not to be entered. Such areas might be flower beds or railway areas.

  Other out of bounds areas are marked on the map by the normal vertical purple line overprint"

- Marshal

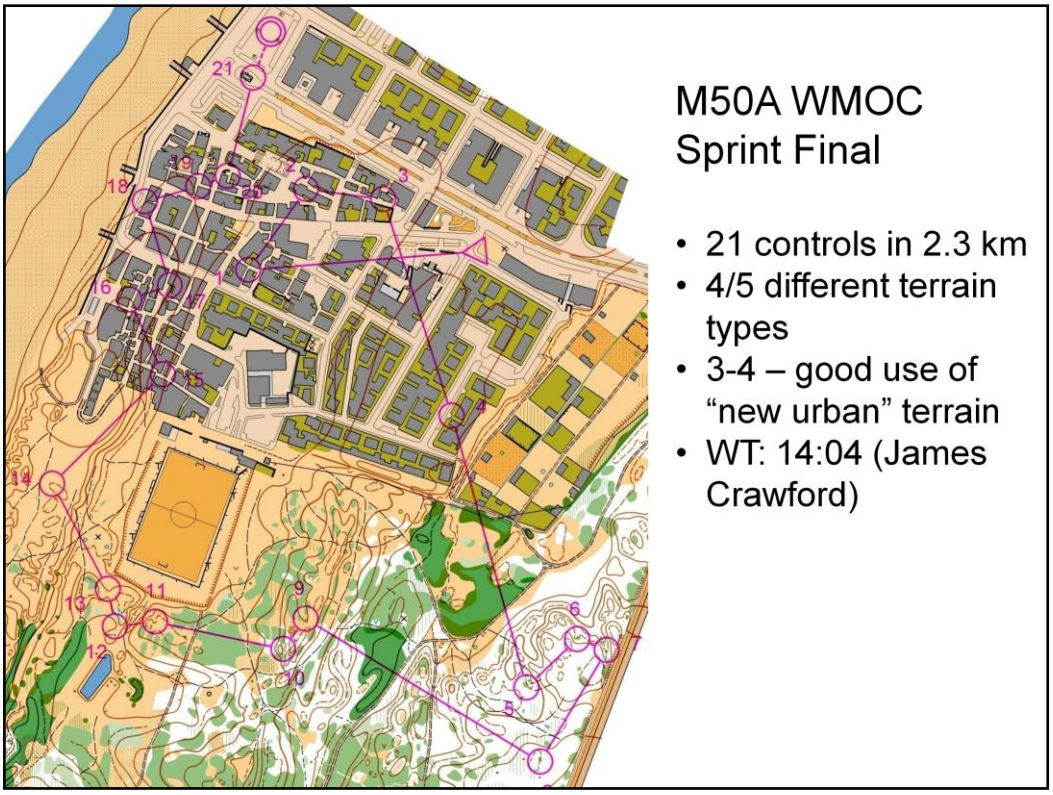
The map shows an extract from the WMOC2008 Sprint Qualification race in Leiria (Portugal). Many courses went into some ornamental gardens near to the Finish, both the olive green flower bed colour and the impassable hedge symbol indicating that runners could not follow the red lines.

Every boundary was taped beforehand to reinforce this.

Logistics differences

- Discrete tapes don't disappear!
- Checking and putting out controls can be done very quickly!
- Maps can change quickly – check re building work
- Check which doors/gates will be open and map as such
- Emit touch free controls vs conventional SI?

On the last point there are, as ever, fierce arguments for both systems. However, both SI and Emit touch free have been used at recent WOC Sprint races so, if either system is acceptable at this level, then either can be used in the UK ...

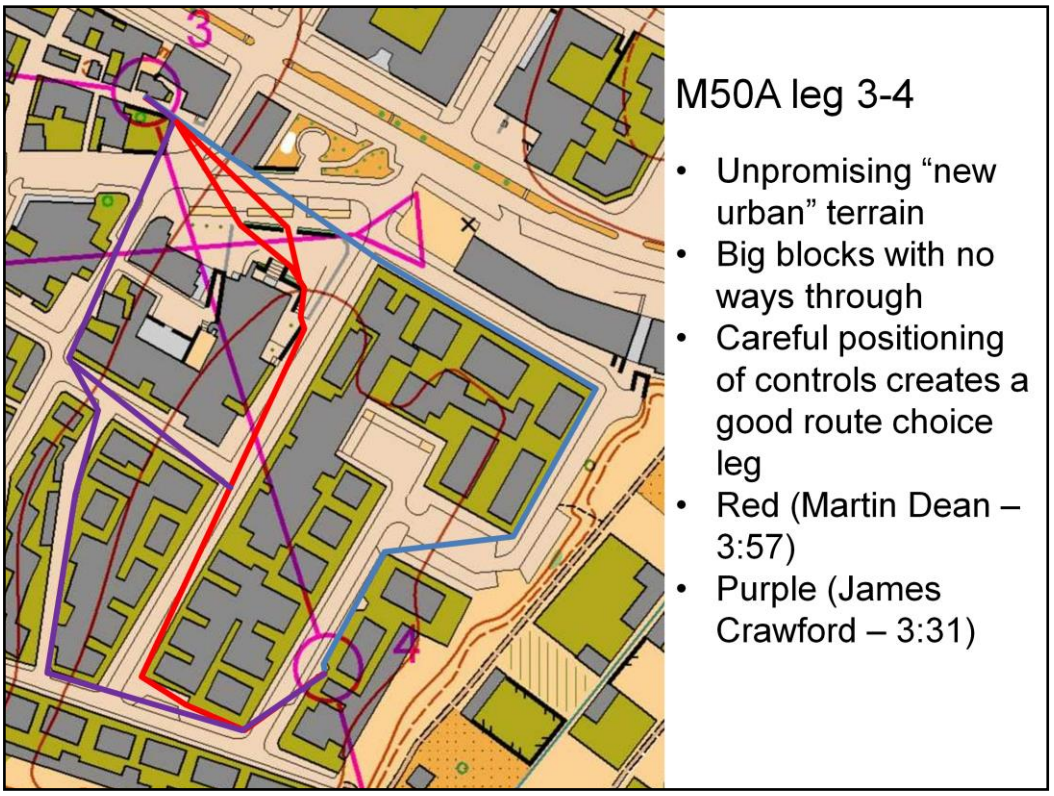


The perfect Sprint terrain – or a horrible mishmash? [a post-event survey revealed polarised views! Most, however, leaned towards the first]

The problem: the "good" terrain (the old town with narrow streets) was far too small to use for the whole competition.

However, some lovely runnable and visible forest was identified (in the SE) and there was open sand dune terrain to the west. But the dunes next to the beach had to be avoided for ecological reasons.

The solution: link all the different terrains together, minimising the controls in the easy new urban (but have a good route choice leg to compensate) and finish the course in the prime old town terrain.

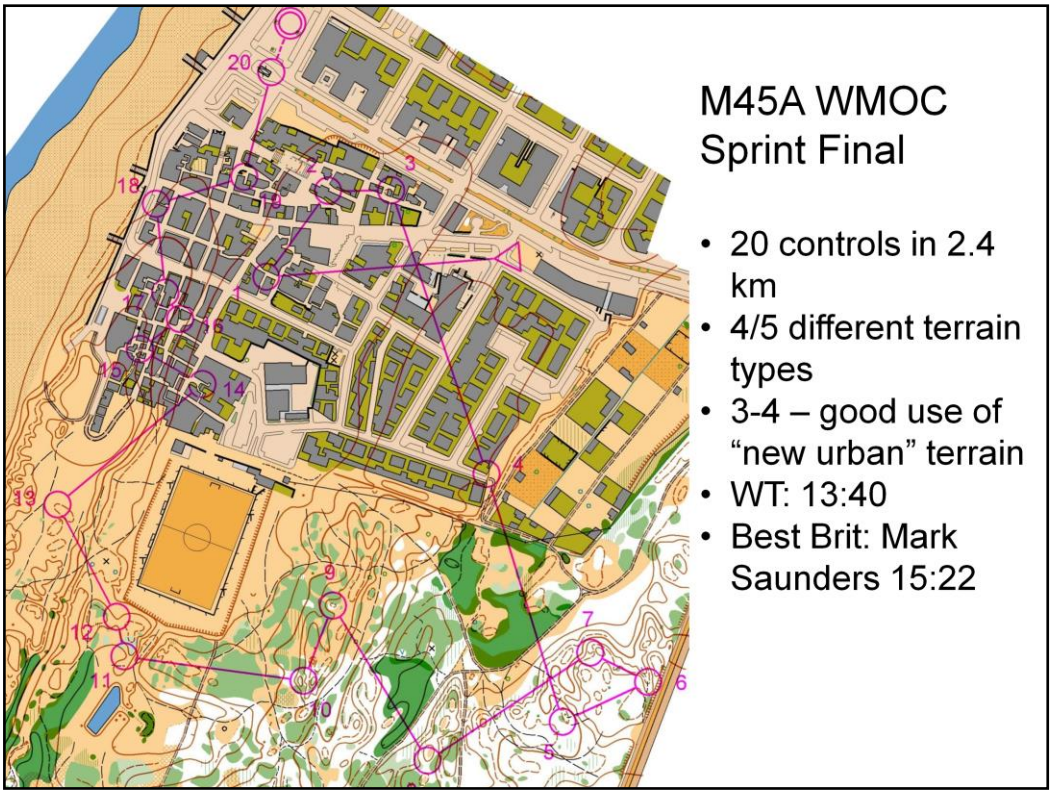


Routegadget routes for WMOC2008 Sprint Final leg

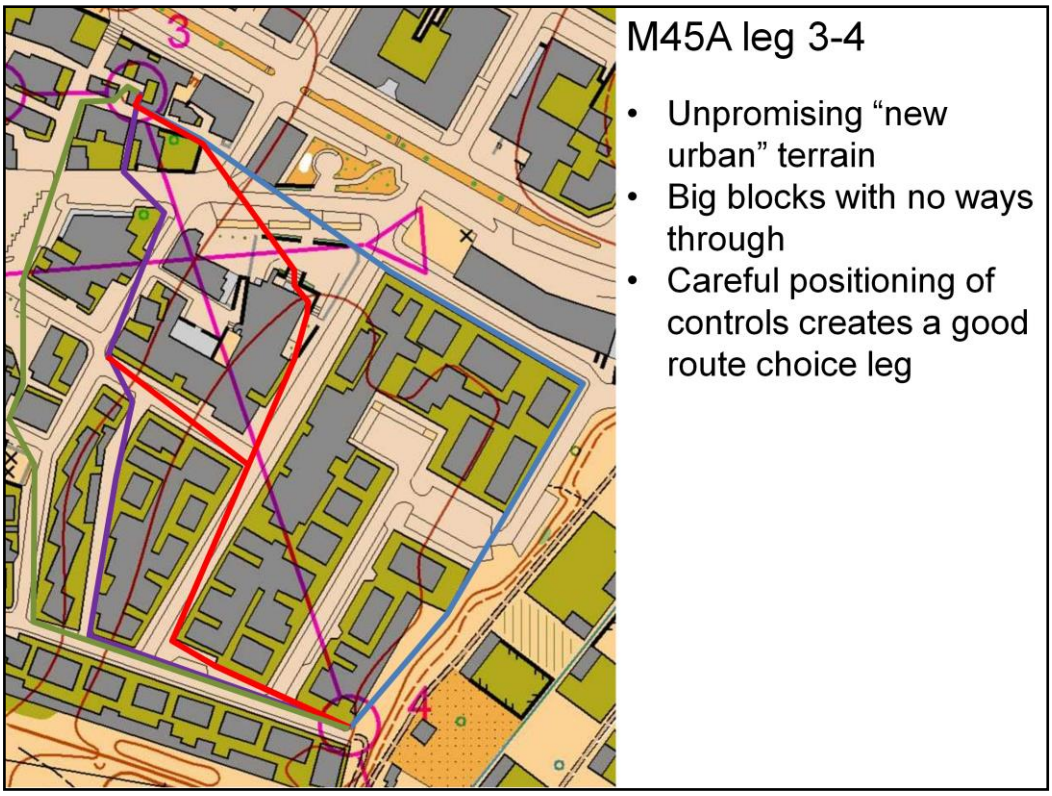
Blue route is plausible

Red route is faster; small variation on red taken by some runners

Purple route best; variation



A second (slightly longer) course



5 plausible routes

Start and finish controls for this leg are similar to but not the same as those for the M50A course.

Urban races

- Many similarities to Sprint
- Differences
  - Longer winning times (typically 2 to 3 times further course lengths)
  - Planning philosophy has to differ
    - 20 – 30 controls in longer distance means that leg lengths are longer
    - Rare to find terrain with sufficiently consistent challenge (except Venice?)

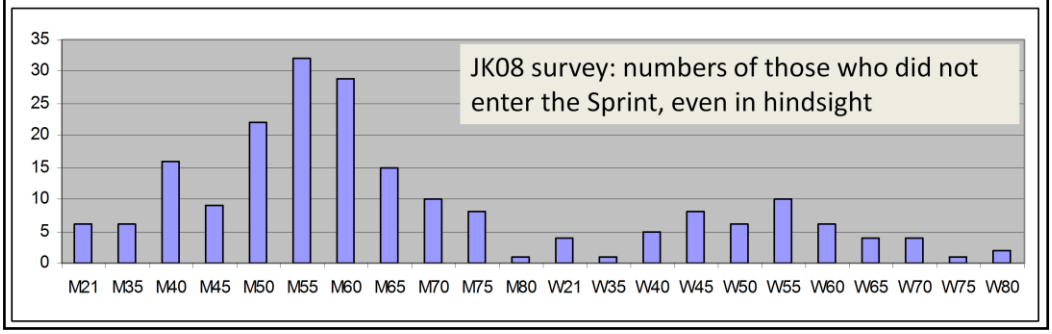
Urban races share the same ISSOM map as Sprint and will include some legs which are indistinguishable from Sprint legs.

However, the longer course lengths mean that average leg lengths are greater and some quite long route choice legs must be found.

There is also a greater chance of mixed terrain types and the risk of dead running

Finally, two quotes

- (M55) I don't do Sprint … those who don't do Sprint won't do it under any circumstances
- (M60) I thought Sprint was just for posers until I tried it. Now I am an addict!



Under 40s need little convincing of the merits of Sprint or urban racing but older competitors find it harder to break old habits and are much more resistant to even trying it.

The chart illustrates this nicely. Those doing the JK08 survey were asked whether, with hindsight, they would have entered the Sprint race; the results show the big bulge in the over 50s who remain unconvinced by Sprint.

However, there are signs that these barriers are gradually being eroded. For example, 90% of the WMOC 2008 entry also entered the Sprint Championships (one qualification race followed by the final next day) making this the world's biggest participation Sprint race to date.