NGOC Training Course
Revised November 2018

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

Course Planning
for an NGOC League event

Paul Taunton

Controller - Grade B (Middle),

Organiser - Grade D (Lowest),

Experienced Planner

but no formal planner qualifications yet set by British Orienteering!

Why are we here today?

Two Key Objectives:

• To help you plan a League event that is <u>easy</u> for you (the planner and organiser) to manage on the day.

• To help ensure that your planning provides enjoyable courses appropriate to the standard expected by the competitors.

What will we be discussing?

NGOC

Partly:

PRACTICAL TIPS to make planning and running the event easier.

Just my thoughts, not rules

and:

British Orienteering **RULES** that must be complied with, for both "Regional" & "Local" (formerly level C & D) events.

What will we be discussing?

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

- Event Levels and Courses
- Risk Assessment
- Planning Software
- Choosing Parking, Start and Finish
- Number of Controls
- Courses and Competitor Flow
- Control Site Checking and Tagging
- Map Corrections and Preparation
- Easy Control Hanging and Collection

Event Levels and Courses

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

- **MOST** future League events will be registered with British Orienteering as "Local" (formerly Level "D") events.

- **A few** may be registered as "Regional" (Level "C") events. The differences are organisational, no difference in course planning.

  Suitably experienced officials, a controller & toilets for Regional!

- **MOST** League events will be "Classic" races, but occasional "Middle" or "Sprint", so use the appropriate guidelines.

- Six courses: Yellow, Orange, Short Green, Green, Blue & Brown.

- Read and follow BOF Rules and Guidelines (& other guidance).

- Note the use in Rules of "shall" and "must" (OBLIGATORY) or "should" (best if you can comply, but not essential to do so).

Additional Trail Course 2019 - initial plans

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

We will offer a Trail run course in parallel with 2019 League events using the same facilities (parking, assembly area, registration, Start, Finish) but otherwise separately organised. Details not yet final, but initial thoughts are:

- At League 1 Doug Wilson will do the trail event planning
- Subsequently there will be ongoing assistance to ensure the trail event doesn't add to the League planner's workload
- Runners will be timed overall
- There are expected to be some intermediate control points, and some of these could perhaps be shared with the Yellow course, if appropriate.

Risk Assessment - Concept

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

- Risk assessment is a THOUGHT PROCESS during planning not just a piece of paper.

- You are required to DOCUMENT that an ADEQUATE Risk Assessment has been carried out.

- Use the BOF form to document the process and get a Controller or Coach to check it and sign to confirm adequacy.

- Never say that competitors MUST read it, as you cannot rely on them doing so. It's up to you to make sure that any necessary warnings do reach the competitors. Provide written & verbal warnings at Start (not just in Final Details).

We should have an emergency plan

Risk Assessment – Specifics

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

Use common sense to **consider risks throughout planning**.

- What is appropriate depends on event & course. Think about M10 and W80 as well as your own age group.

- Road crossings? (Major/minor? – Juniors?) Event traffic! *(Avoid manned crossings for League– insufficient volunteers).*

- Direction of approach to crags?

- Rivers, streams, ponds?

- Are risks different at night, or in very wet weather?

Plan out hazards- taping them is more work for you!

Planning software

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

- Please download and use the latest version of Purple Pen *(No CONDES licence held).*

Switch to PPEN for demonstration of setting up a new event:

Planning software

- Demonstration should have included:

- Set "event options" to ISOM2017 map, and IOF 2018 IOF descriptions standard.

- Always check the scale of a "dummy" course along the scale bar – there have been errors!

- View map at a sufficiently large size to see that circles are <u>exactly</u> centred on the feature!!

- Add "Blank" course for start lane maps.

Centring of circles

View map at a sufficiently large size to see that circles are centred on the feature.
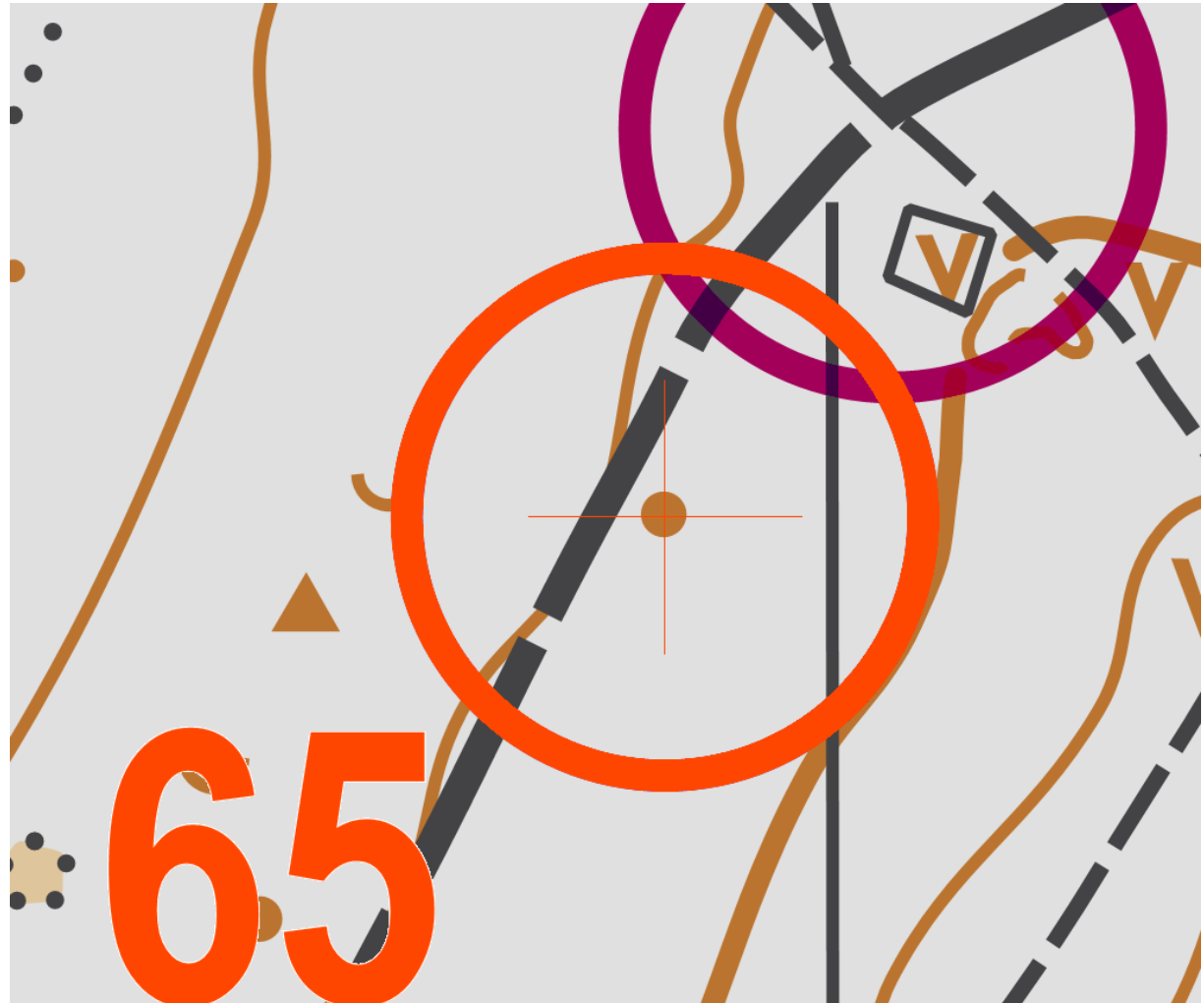
FC Parking Restriction

- Adequate parking is fundamental to an event.

- The Forestry Commission announcement that we will no longer be allowed to park on forest tracks has already disrupted 2 events.

- Negotiations in progress.

- It appears likely that, contrary to previous practice, a fixed parking place will need to be established some time well in advance of the event and the Planner will be forced to use that location.

Choosing Parking
(If you have a choice)

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

- Park close to useable terrain – long (500m plus) walks acceptable for National events, but not for family-friendly League events.
- For smaller events (e.g. night events with low numbers) it's good to try new, different locations that might not work for a larger event.
- But for League events there may be large numbers of competitors, perhaps 100 cars, so use somewhere reliable.
- Think about weather and vegetation at the date of your event. (Linear? Fields?).
- Try NOT to use the exactly the same place as the last event.
- Maybe consider parking off-map on an adjoining area *(but may need a manned road crossing?)*

Choosing the Start Location
TIPS

- Reasonably close to parking.

- Use one start only (otherwise a manpower problem).

- Don't block paths used by walkers/bikes.

- Field check required to ensure sufficient area free of vegetation for start lanes and map boxes etc.

- Start must give access (via tapes if necessary) to distinct linear features for the Yellow course to follow.

- "Start high finish low" – on steep areas a walk uphill to the start can reduce the climb on the courses and make it more acceptable.

- For mass start events (NOT League) in centre of map - many possible "first" controls, to split up runners.

Start Location – RULES

28.1 - The position of the centre of the start triangle shown on the map must be on a mapped feature and identified on the ground by a control banner.

28.2 - For TD1 and 2 courses this feature must be a path or similar feature; it must not be at a junction or intersection.

B4.1.3 - The position of the start kite or master maps **should** be such that competitors waiting to start cannot see, or have minimum visibility of the route taken by competitors who have started.

B4.1.3 - The map issue point **should** be such that all competitors will visit the start kite.

B4.1.4 - The courses **should** be designed so that competitors are unlikely to return past the start on their way to the first control site.

(And later in their course too!)

Don't forget that the start does need a control description

Choosing the Finish Location TIPS

- Competitors must be able to see Finish banner easily!
- Consider uphill run-in to slow runners
  - (be kind - maybe only last part uphill?)
- Safe route for juniors back to parents?
- Should be manned, so use just one Finish, unless it's in the assembly area and plenty of people around.
- Take care that route back from Finish to Download does not pass a clear station on the route to start (e.g. that used by string course).

Don't forget that the Finish does NOT have a control description, so must be easily found, not hidden!

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

30.1 - The precise location of the finishing line or point must be clear to all competitors approaching it.

B5.1.2 - It is important to ensure that the Finish is easily located. A common last control with taped route to the Finish will ensure this. This will also ensure that competitors all approach the Finish from the same direction.

B5.1.3 - The Finish should consist of a punch unit and control flag, preferably with a prominent Finish banner.

B5.1.3 - There should be no possibility of a competitor being unable to find the Finish.

B5.1.4 - The Finish should be manned as it may often be the first place a competitor can report an injured competitor.

Choosing the Finish Location
A REAL EXAMPLE

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."
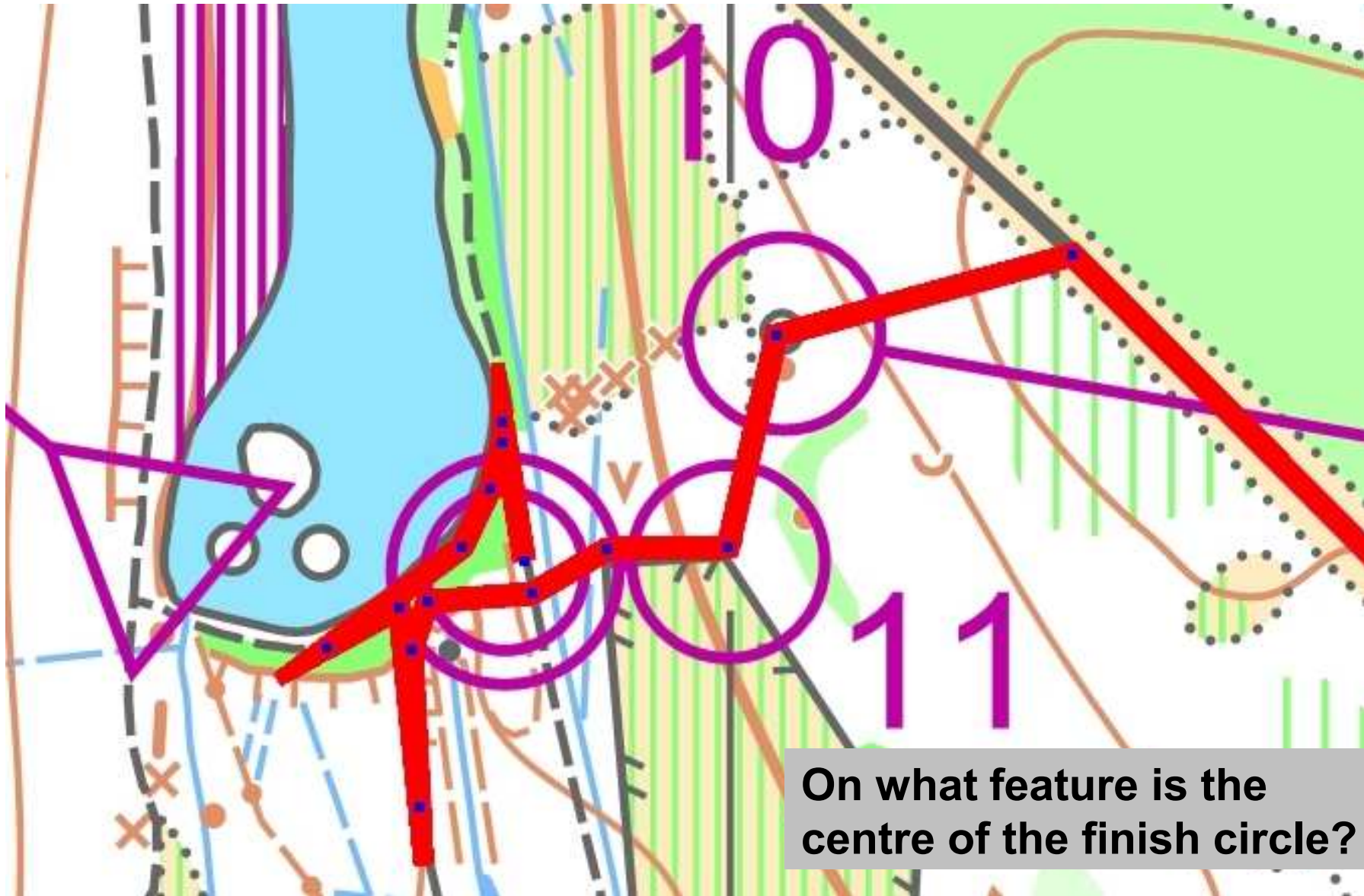
On what feature is the centre of the finish circle?

Choosing the Finish Location
Finally...

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

If your finish is not in the assembly area, and you ignore rule B5.1.2 so that competitors approach the Finish from more than one direction, and you also ignore rule B5.1.4 which says the Finish should be manned, you risk people following incorrect (and potentially hazardous) routes back to download.

It is imperative that you ensure competitors know which way to leave the Finish, towards Download.

- If people approach the Finish from several directions basic taping may be confusing.
- If there are busy roads nearby make sure people don't try to walk along them rather than follow the authorised route.
- If the return route is complex, consider showing it on the competitors' maps.

IT'S BEST TO MAN THE FINISH IF POSSIBLE

Initial Visit to Area

- Inspection of the map should allow possible locations for the Parking, Start and Finish to be selected (based on Rules and tips given above).

- Ideally visit the area at this stage, before spending too much time thinking about details of courses.

- Consider whether parking likely to be adequate at season of event (and possible alternatives?)

- Is there adequate space for Assembly tents and String Course near Parking/Start?

- Look for any major changes to map near Start/Finish.

Concept of Technical Difficulty

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

Refer to Table in Section 2.3.5 of Appendix B – Course Planning for full details

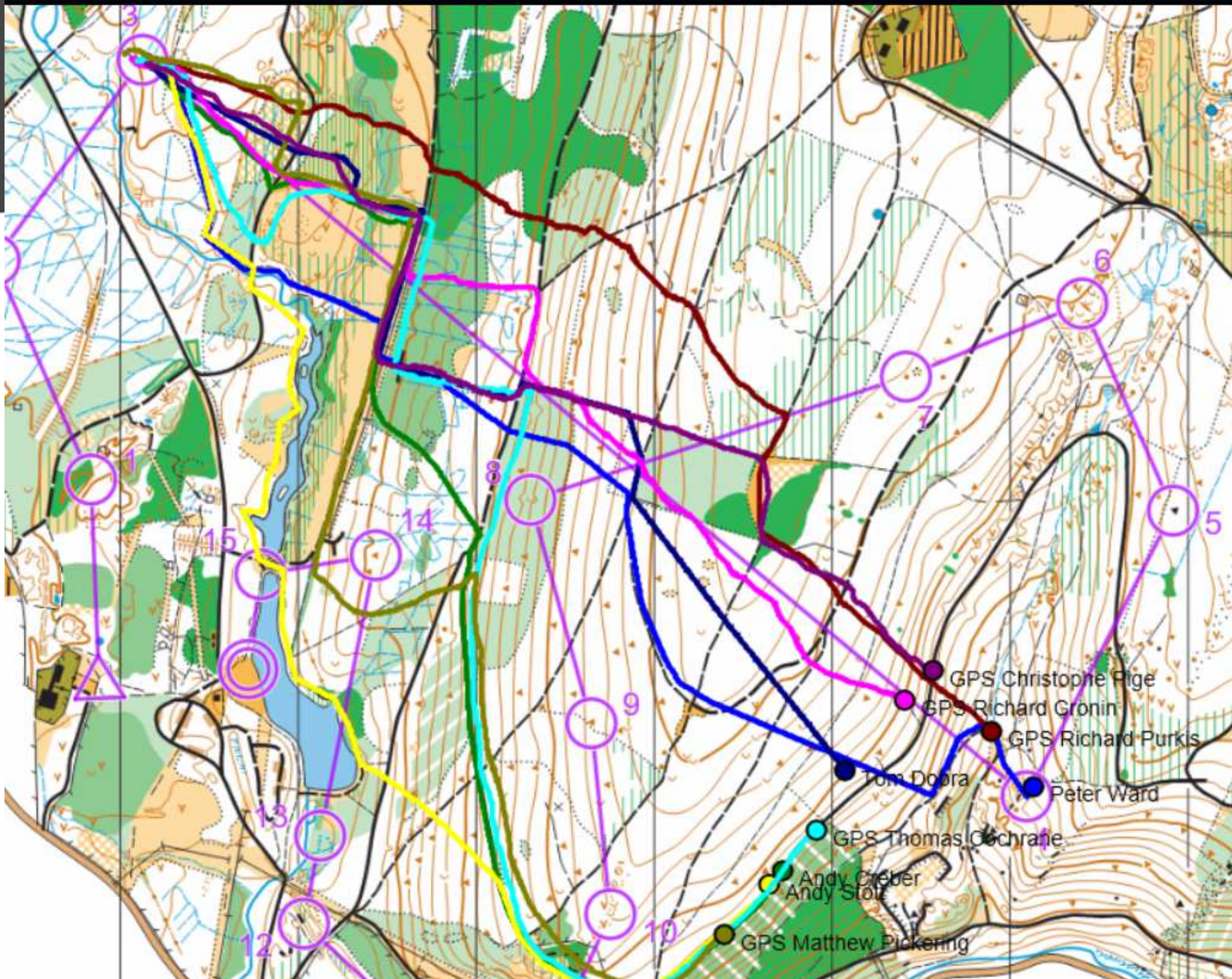| TD	Courses	Key Points for this Colour course
TD1	White	All along paths; a control at every decision point; max. 200m leg.
TD2	Yellow	All along distinct linear features; at most 2 decision points per leg; can use point features if close to and clearly visible from the linear feature; no route choice; max. 350m leg.
TD3	Orange	Controls not on a linear feature must be readily found from a DISTINCT attack point on a linear feature; catching feature behind any point features; simple route choice, e.g. corner cutting; varied leg length.
TD4	Light Green	Controls on any feature provided that no need to interpret complex contour detail to find; significant route choice; catching features to ensure time lost not excessive if a control is missed.
TD5	Short Green to Black	Any feature, but the banner must not be hidden; not excessively isolated (no Bingo controls); errors can result in a large time loss!

Number of Controls for League events

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

<u>To make things easy keep the number of controls to a minimum!</u>

- If you are at a control you know exactly where you are!

- Planning of TD5 Classic courses should include <u>long</u> route choice legs:

  - single leg should not be >20% of course length;
  - but two longest legs totalling 33% is good;
  - plan long legs first, then fit rest of course around.
  - no need for controls in every part of map.
  - need to be sure map OK for ALL route choices!

GPS Christophe Rige
GPS Richard Cronin
GPS Richard Purkis
Tom Dobra
Peter Ward
GPS Thomas Cochrane
Andy Creber
Andy Stott
GPS Matthew Pickering

Number of Controls for League events

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

- <u>Controls</u> will be common to several courses.

- If you plan the Yellow course with some controls on point features alongside paths these can provide a more technical control if approached through the terrain.

- <u>Legs</u> can be shared, but best between a busy course (G or Bl) and a less busy one (SG or Br).

- Avoid legs run in both directions "contraflows"!

Number of Controls for League events

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

- Pre-SI only **27** pin-punch controls were available for three courses (Orange TD3/Green TD5/Blue TD5).
- Once SI in place and 4th course Yellow added, significant increase, because of need for TD2 sites, average **35 controls**.
- League events over the years show **INFLATION** in numbers!
- Average **39** controls for four courses over 9 events in 2017, *excluding League 2 (6 courses) and League 7 (Sprint).*
- Range over these 9 events **31** to **51 controls.**
- But 2017 League 2 Mallards Pike (6 courses) used only **32** controls.
- And 2018 League 2 Bixslade (6 courses) used only **33** controls.

I would suggest aiming for not more than 35 controls for the six courses

TD of Shared Controls?

TD5 courses do usually use some TD2/3/4 controls –
it is the leg that is important, not just finding the control.

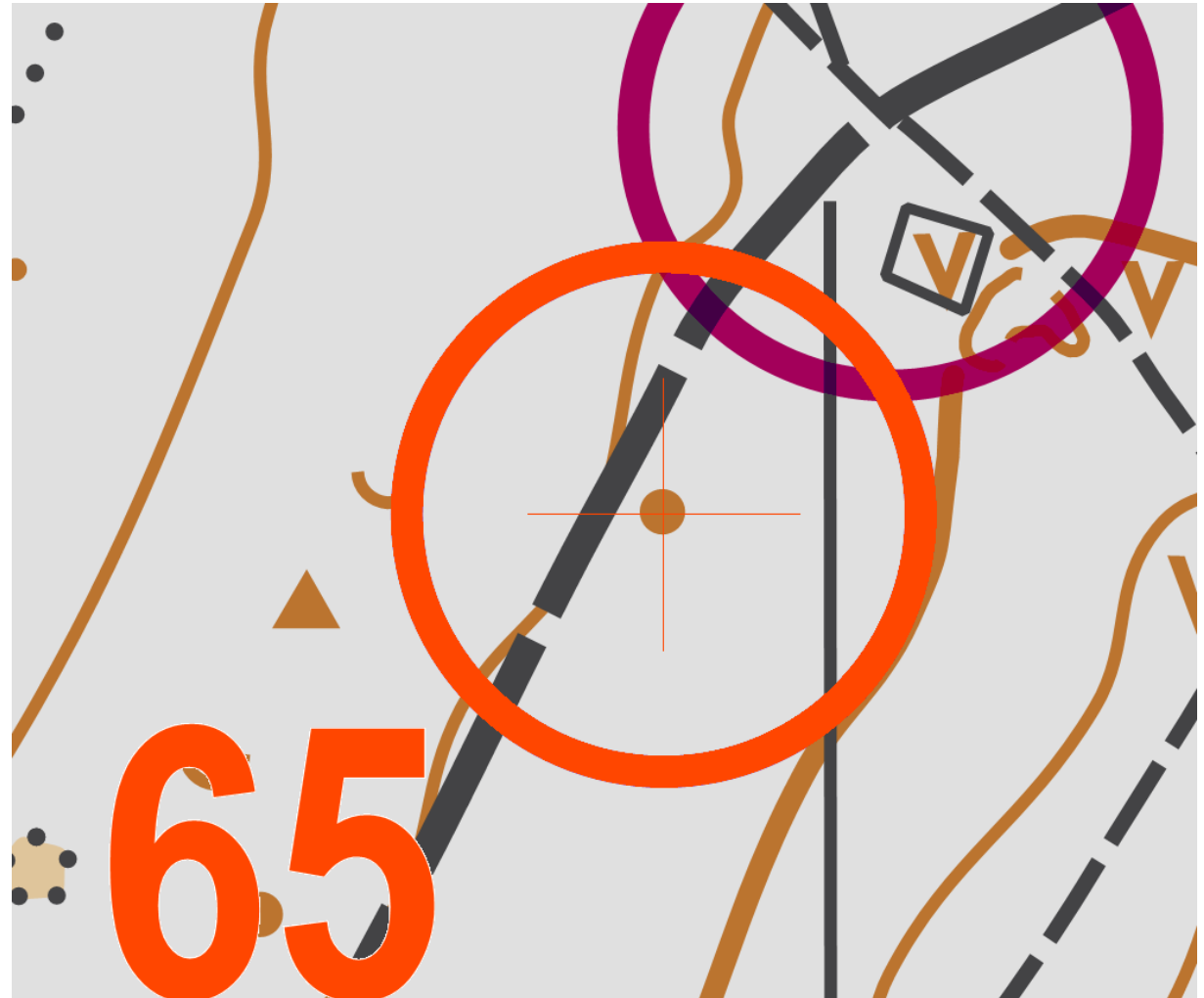**Actual leg taken from a Blue course at a League event.**

TD of Shared Controls?

Control 65 on Blue could also have been used on the Yellow course!

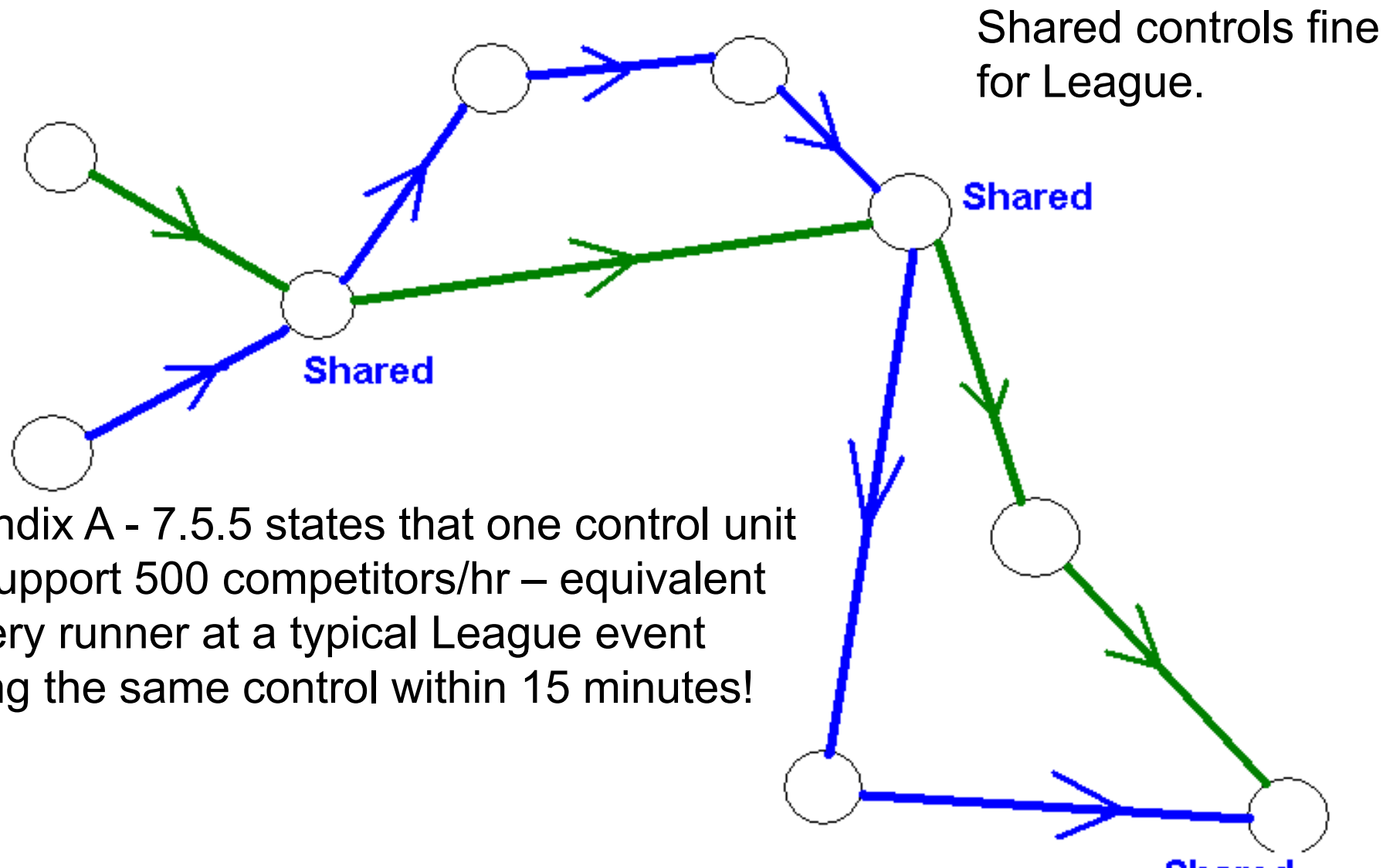*(instead of actual location at path crossing to NE)*

Competitor Flow

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

• Safety - keep junior courses within the overall area used by senior courses, not in a separate area elsewhere.

• Environment - leave some areas unvisited by any course, so that deer / boar have a refuge.

• Avoid direct contraflows!

• If two courses share the same control they should ideally approach and leave in similar (but different) directions.

Competitor Flow

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."
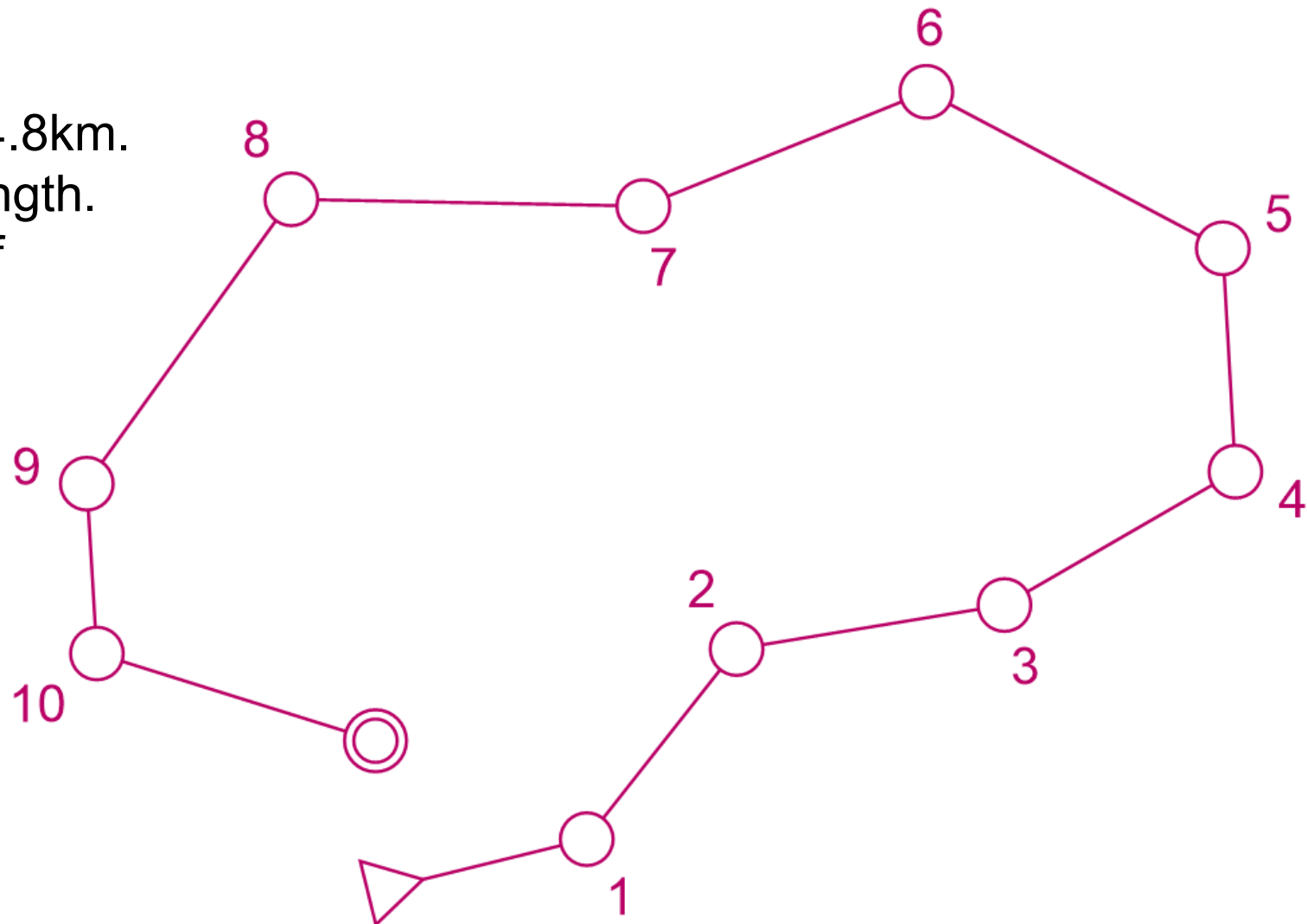
Shared controls fine for League.

Shared

Shared

Appendix A - 7.5.5 states that one control unit can support 500 competitors/hr – equivalent to every runner at a typical League event dibbing the same control within 15 minutes!

Course Shape

Circular route 4.8km.
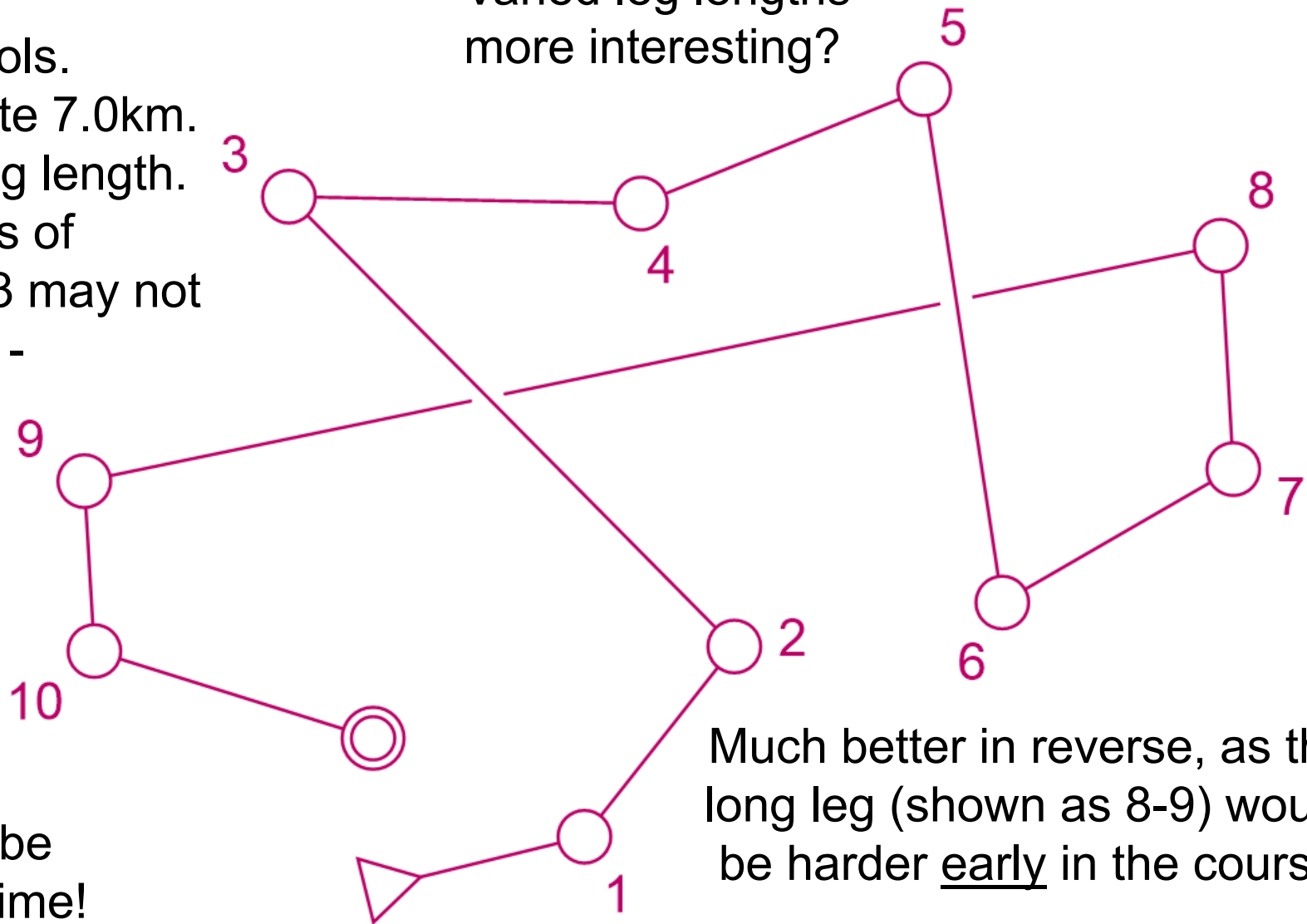Legs similar length.
Little change of
Direction.

Course Shape – Better?

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

Identical controls.
Crossover route 7.0km.
More varied leg length.
Sharp changes of
direction (but 3 may not
be acceptable -
dogleg?)

Varied leg lengths
more interesting?

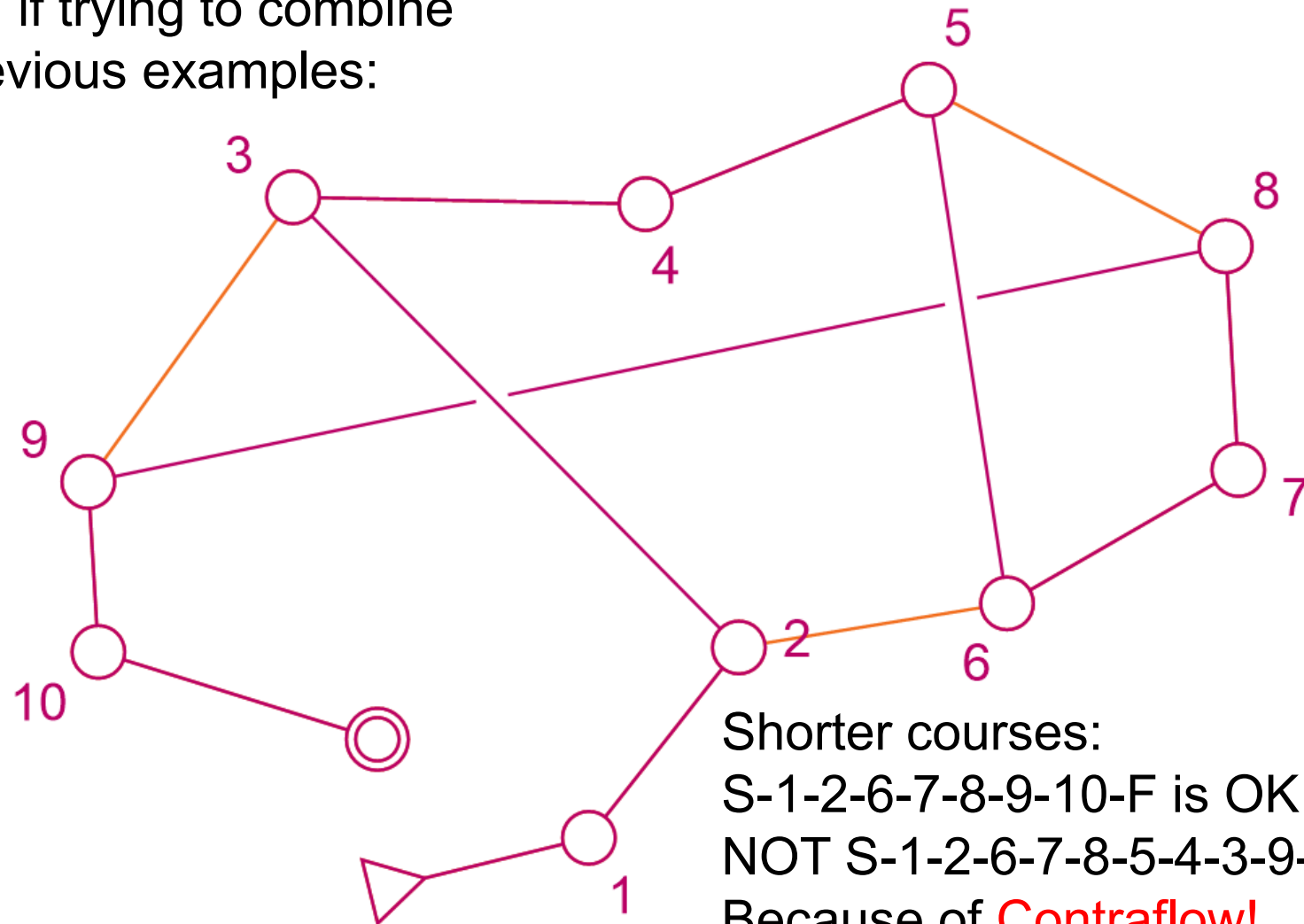Course 45%
longer but can be
hung in same time!

Much better in reverse, as the
long leg (shown as 8-9) would
be harder <u>early</u> in the course.

31

Careful if trying to combine
two previous examples:

Shorter courses:
S-1-2-6-7-8-9-10-F is OK
NOT S-1-2-6-7-8-5-4-3-9-10-F
Because of Contraflow!

Yellow Course Planning - Tips

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

- Not good practice to use control numbers 31 to 39 in order for the Yellow. Better to use random numbers to train runners to check their descriptions.

- Understand the differences between White & Yellow - ensure that Yellow course DOES have decision points.

- But there should be NO route choice!

- Use controls on point features alongside the linear feature being followed (can share with other courses).

- Use a path junction control (& sad face?) at any critical point where Yellow runners might go off map!

Short Green Course Planning - Tips

- Course is allocated to M75 and W65 (also a short course for some younger age classes).

- Avoid the need for older competitors to climb fences.

- Avoid very steep gradients up and down.

- Take care that this course is not excessively physical e.g. long legs through heavy brashings.

- Nevertheless, try to ensure that as many controls as possible are technically difficult!

Using the Green course but with part removed to reduce length possible, but may be too physical?

Brown Course Planning – Thoughts

- At NGOC galoppens over the last 20 years about 12% of field have run Brown (Bixslade only 4% but Highmeadow 11%!)

- **For discussion** – "It's probably not worth going to a lot of effort to plan the perfect Brown course for a Local event, as very few will run it".

- Could use multiple "Butterfly" loops in a relatively small area?

- Add 2 or 3 controls in a distant part of the map (that you can drive to) and give them a couple of long legs out and back?

Hot Potato – Course Lengths

Appendix B, Table 8.6		
Course	**Ratio**	**Length (km)**
Brown	0.85	8.5-12.0
Blue	0.56	5.5-7.5
Green	0.39	3.5-5.0
Short Green	0.33	3.0-4.0
Orange	0.25	2.5-3.5
Yellow	0.22	2.0-2.9

Hot Potato – Course Lengths

- The course length guidelines are not particularly clear, e.g. "Blue 5.5 – 7.5km"

- Not explicitly stated if these are actual lengths, or corrected for climb? **What do you think?**

- 22 NGOC Blue courses, 11/4/15 - 3/6/17, Min. 4.6km, **Av. 6.2km**, Max. 8.0km (uncorrected)

- 28 other clubs Blue courses, 22/2/15 - 27/8/17, Min. 4.9km, **Av. 6.2km**, Max. 8.3km (uncorrected)

- **Best to look at previous results on same area!**

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

The "Reports" tab in PPEN has a Dropdown Menu "Event Audit", a useful function to check that you have done a good job. The audit will identify:

- Controls that are too close together;
- Missing items such as climb, or parts of control descriptions;
- Contraflows (legs run in both directions);
- Any controls (or legs) that are particularly busy *(Providing you have set the likely number of runners on each course, using the "Course" tab and the Dropdown Menu "Competitor Load" to enter them).*

Control Site Tagging Checks

- Every Control site must be visited and tagged.

- For Regional events the Controller must agree every site, for Local events a second person should check them.

- Risk assessment – consider whether site is suitable for juniors, seniors, veterans.

- Environmental assessment – stream sources and marshes can be adversely affected! Mark OOB?

- Check that not only is the tag on the correct site, but also is the map correct within the circle, e.g.
  - No very similar but unmapped features nearby?
  - Bearing of feature OK from likely (and unlikely!) attack points?

Control Site Tagging - Reassess sites

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

- Be flexible at the tagging stage
  - Is the area around the control as you expected from looking at the map, or will you have to remap a large area?
  - Was it a pleasant experience finding the control, or was the terrain horrible?
  - Did you find the site with certainty, from a distinct attack point, or was it luck amongst many similar and almost indistinguishable features?

  IF YOU HAVE ANY CONCERNS THEN WHY NOT MOVE THE CONTROL BY PERHAPS 50m OR 100m TO A DIFFERENT FEATURE?

Control Site Tagging - Thoughts (Not Rules)

NGOC

- Unique *(consistent type/colour)*

- Visible *(but competitor must not see tag before control)*

- Durable

- Correctly numbered *(signed by mentor/controller?)*

- Timing?

- At <u>exact</u> site *(& height? or high tape & peg in ground?)*

- Beware duplicates/replacements!!!!!

Remember to ask control collectors to collect!

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

Tags can be very hard to see:
Planners tag (red) and Controller's tag (yellow) less than 1m apart

Map Corrections

- Check map is correct close to control site during tagging.

- Distant from control site:
  Add significant changes affecting route choice.

- Print a map at 1:5,000 (or use PPEN) and mark any corrections then send to me.

- No need to try to remap whole area - only what's essential to your courses.

Preparing Course Maps

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

NGOC

Once the courses are complete, there are certain adjustments that need to be made in PPEN:

- In "All Controls" view (at large magnification) select each control in turn and cut the circle if any detail obscured;
- For each course in turn move the control numbers so they are clearly legible, but don't obscure important detail;
- On Yellow course move aside any connecting lines that obscure paths;
- Cut or bend any connecting lines that cross out-of-bounds;
- Consider whether connecting lines obscure any features important to navigation and if so, cut line.

Preparing Course Maps

As well as the courses, there are certain items that need to be shown on competitors maps:

- Show event date at top of Control Descriptions, format: "17 Feb 2018 – NGOC League 2" – *reason;*
- Special item, Text, "Course Name" - large purple letters;
- Event number (look up event in BOF list);
- Add "Courses Close" time as last line of descriptions;
- Emergency phone number *(if signal on area).*

Rule 18.8 - Map Must Show:

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

- Name of area & grid reference of a defined point on the map (or the centre of the mapped area);
- Scale, scale bar and contour interval;
- North lines, with the date of magnetic north;
- Date of the map;
- Names of surveyor(s) and cartographer(s);
- Holder of copyright of printed map and artwork;
- Standard access and permission statement;
- Any legal requirements for copyright of source material used to prepare the map (OS, EA for LIDAR);
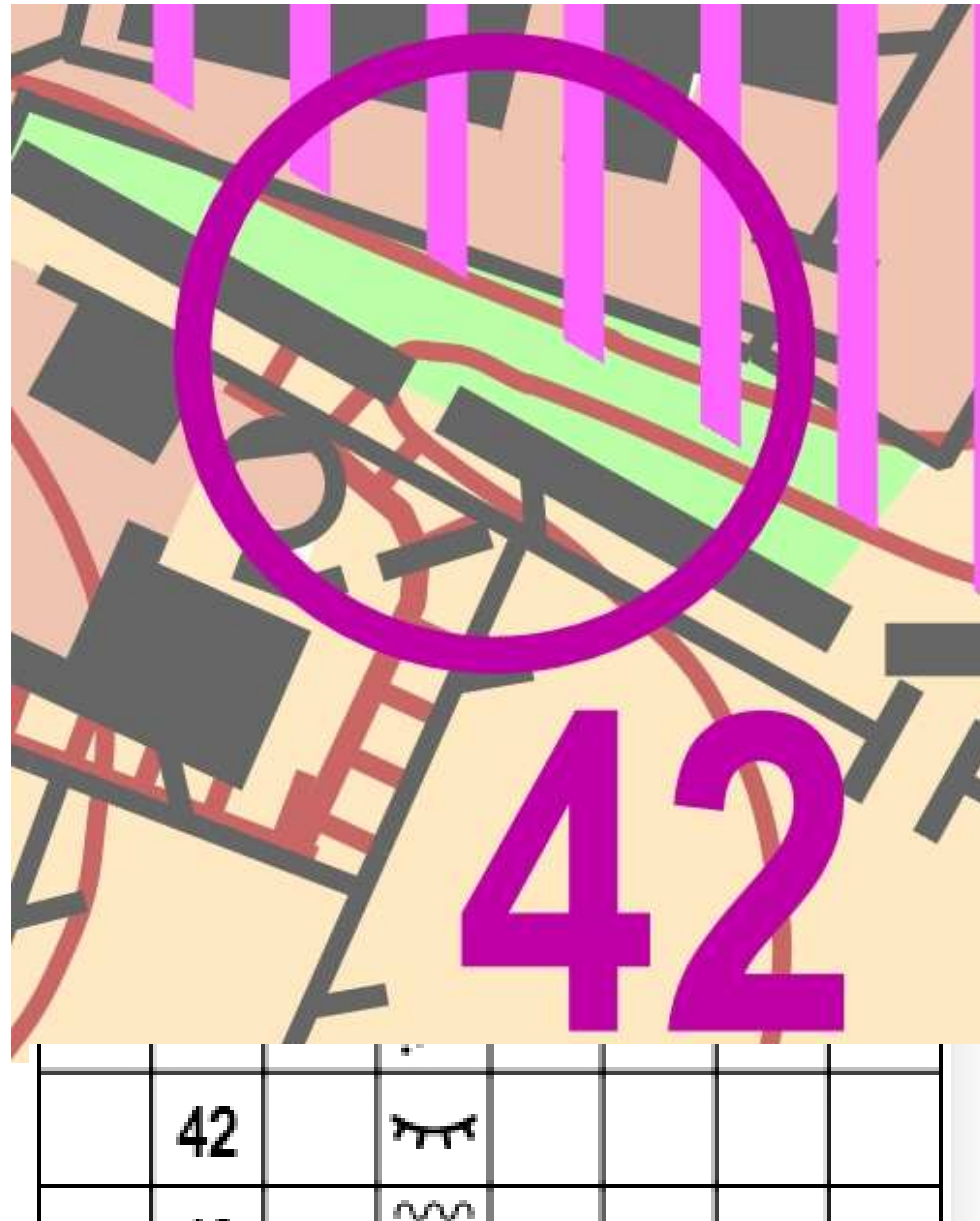- Specification used, whether ISOM or ISSOM and date;
- Legend!

Mapping officer will add if missing

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

Where is
the control?
Is it SW or NE
of the path?

The description
must refer to
**a feature shown
on the map!**

Control Hanging

- All controls must be woken up on the day if Regional (and preferably if Local).

- For reasonably hidden controls planner places beforehand (or just stake & kite).

- Day helpers - find control & place box (wake).

- EXACT as planner (not a helper) has placed.

- Hang/wake by area, NOT by course.

- Maximum 2 helpers needed for a league.

- On the day the planner places ONLY path controls, kite & SI box (yellow max. 10?).

Control Collection

- Have "All Controls" maps ready. Cut up?
- Optimum collection will <u>differ</u> from hanging as both path and off path controls to be collected.
- Tell collectors what your tags look like and remind them to collect!
- Take care not to collect in too early!
- Collect hazard tape?

Control Collection

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

Purple Pen – "Control cross-reference" function:

Control	Yellow	Orange	Green
50		10	14
51		7	
52		1	10
54		4	5

Summer Series 4 - Parkend

The End

"Orienteering is a challenging outdoor adventure sport enjoyed by people of all ages, abilities and backgrounds."

Thanks for listening!!