Coaching and Teaching Orienteering Using

By Gord Hunter
Suncoast Orienteering

Suncoast Orienteering and Florida Orienteering use Livelox to track and record the routes of willing participants. Others may add their routes for replay after the event.
This presentation is to help coaches get the most out of what they see.

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Livelox, developed by Mats Troeng in Sweden, is a service that lets us record and compare our orienteering races with family, friends and fellow competitors. Livelox allows event organizers to keep track of registered participants in the terrain and helps in finding those gone astray.

However there is so much more to Livelox as a training and teaching tool. This presentation will show you how to use it.

There are two ways for orienteers to get their competition routes into Livelox

1) Record their route in real time using a mobile app, or
2) Afterwards upload them from a dedicated GPS logger such as Garmin or Suunto.

The Livelox web site has an interface that automatically overlays GPS tracks on the competition map and course. Livelox then allows playback of the action, synchronized on the screen as if it had been a mass start. As you will see there are also many features built in to Livelox for the orienteer and instructor to rehash the course in multiple ways for multiple learning outcomes. But wait, there's more, as they say. Livelox contains important data and teaching tools even for those who are not being tracked by their app.

Full information on how to set up and use Livelox for live tracking is available on the Florida Orienteering website

http://www.floridaorienteering.org/Livelox_Info.htm

including

Short Video Tutorials on Livelox:

How to Get Set Up to Use Livelox: https://www.youtube.com/watch?v=urpc6pzE0f8

Livelox Video 1: Replay Demo https://www.youtube.com/watch?v=qU2JqZv4lEE

Livelox Video 2: Single Track Analysis https://www.youtube.com/watch?v=Ps_hOAGXCyc

My favorite!

Livelox Video 3: Using SplitsBrowser to prioritize which course legs to study https://www.youtube.com/watch?v=QLpC_ejP0YE

Livelox Video 4: Choosing competing GPS tracks to compare to yours https://www.youtube.com/watch?v=R2PDNjAKUms

Livelox Video 5: Importance of Participation https://www.youtube.com/watch?v=NFf-75REBAM

With that background we are here to offer suggestions on how to coach orienteering techniques using Livelox for replay and review.

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How to review multiple routes at the same time on Livelox:

Livelox allows anyone any time to review one route at a time for free.
However, to get the full benefit of replay it is necessary to have a subscription.
For anyone coaching an orienteering team or any participant interested in visual comparison to others a Livelox subscription is a must.

Cost? A whopping $8 per year to be part of the Florida Orienteering club subscription.

It is available at:

https://squareup.com/store/florida_orienteering/item/livelox-annual-club-license

You can copy and paste this link into your browser.

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Livelox Replay: It's like football game films!

Scenario: You and your team were at an orienteering event last Saturday.
Some of the team did well; some didn't. All want to know how they can do better.
Some carried their phones with GPS loggers and have their Saturday routes on Livelox.
Many didn't get their routes recorded.
Not to worry this training is for all.

Course replay is the orienteering equivalent of football game films. I cannot imagine having coached or played football without being able to review game films and use 'teachable moments'.

Those with the Livelox app and other GPS trackers get to have their route recorded automatically. Those without should be tracing their route on to a copy of their competition map.

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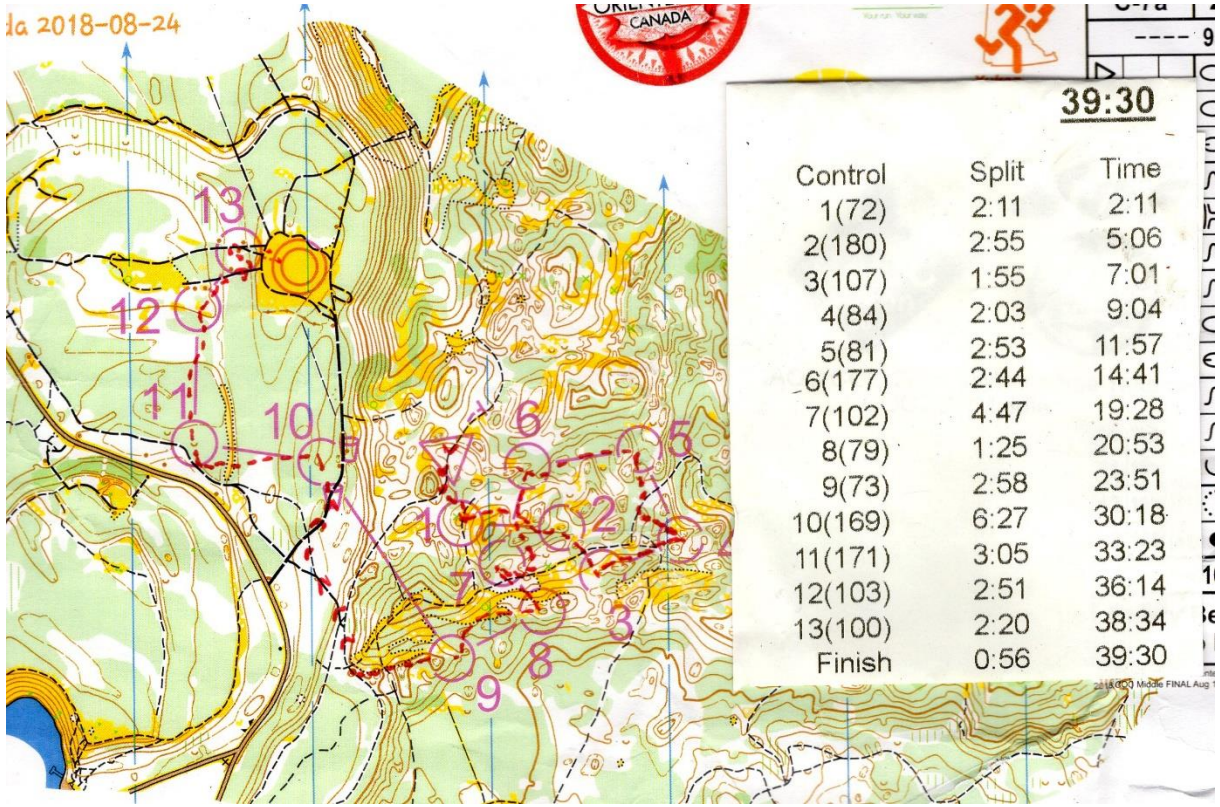
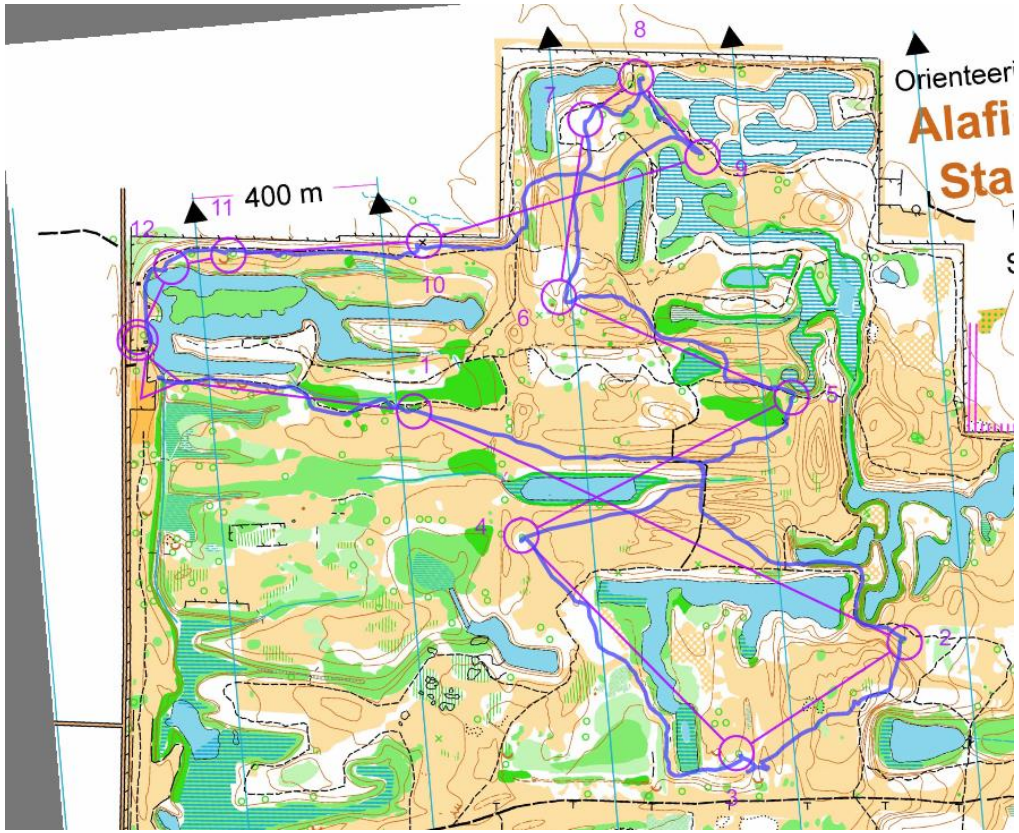


Example of hand-drawn route



Example of route generated by Livelox

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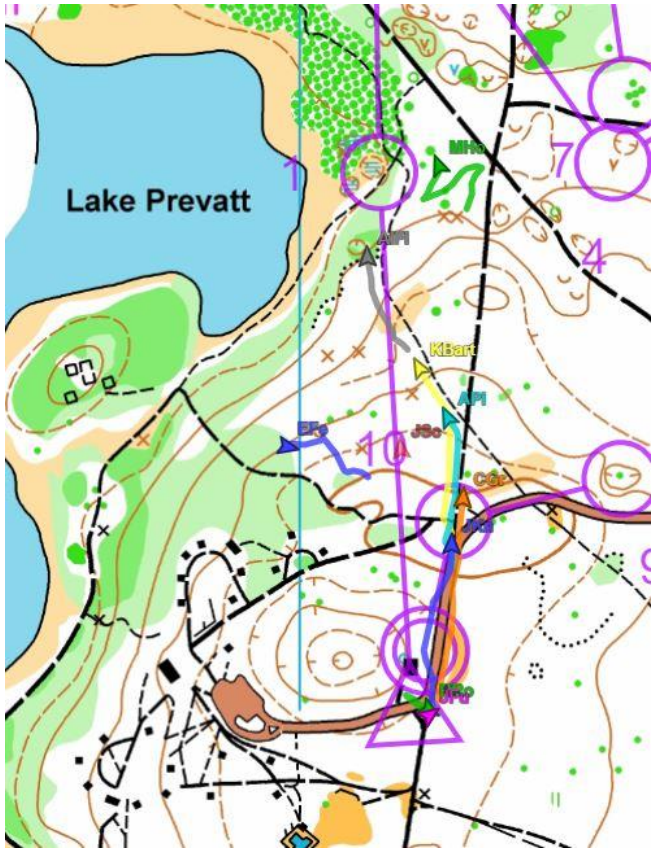
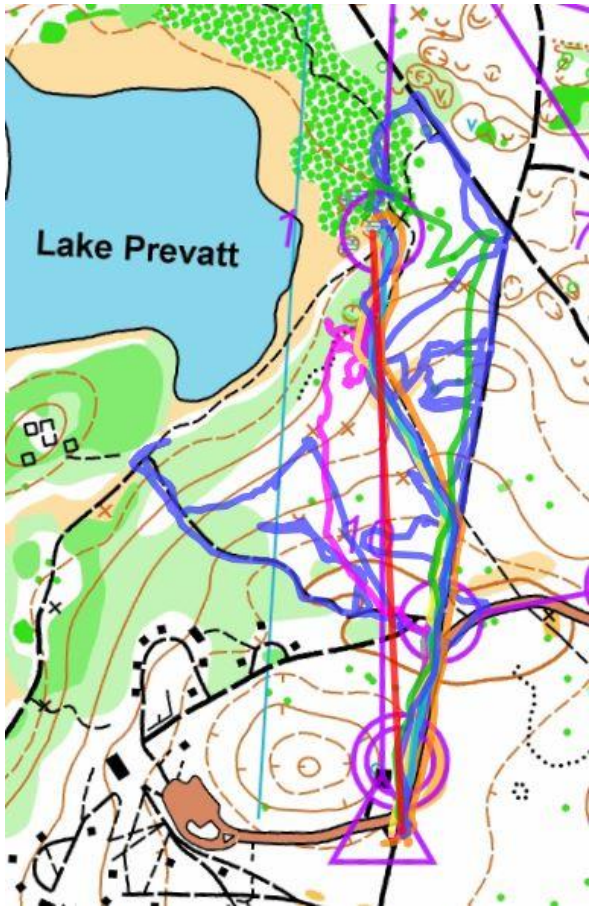
Putting LIVELOX to Use in Coaching

By now most of us are familiar with the replay function in Livelox. Those with the club subscription may review all recorded orienteers on one course at the same time.
Each orienteer is represented by an arrowhead figure and initials.
This is the ‘sexy’ part of Livelox.
There are always lots of comments such as ‘What the heck is EFe (darker blue) doing over there?’ (Laughter follows)



My favorite Livelox teaching tool is found on the Livelox top toolbar and is called Legs.
This allows us to pick each leg on a course as which routes we will review. Look at that route in blue, the same EFe. Livelox also tells us that he covered 4.3 km in 39:20 on a 558 meter leg.
A lot of teaching and learning can be done there.
Let’s look at more examples.



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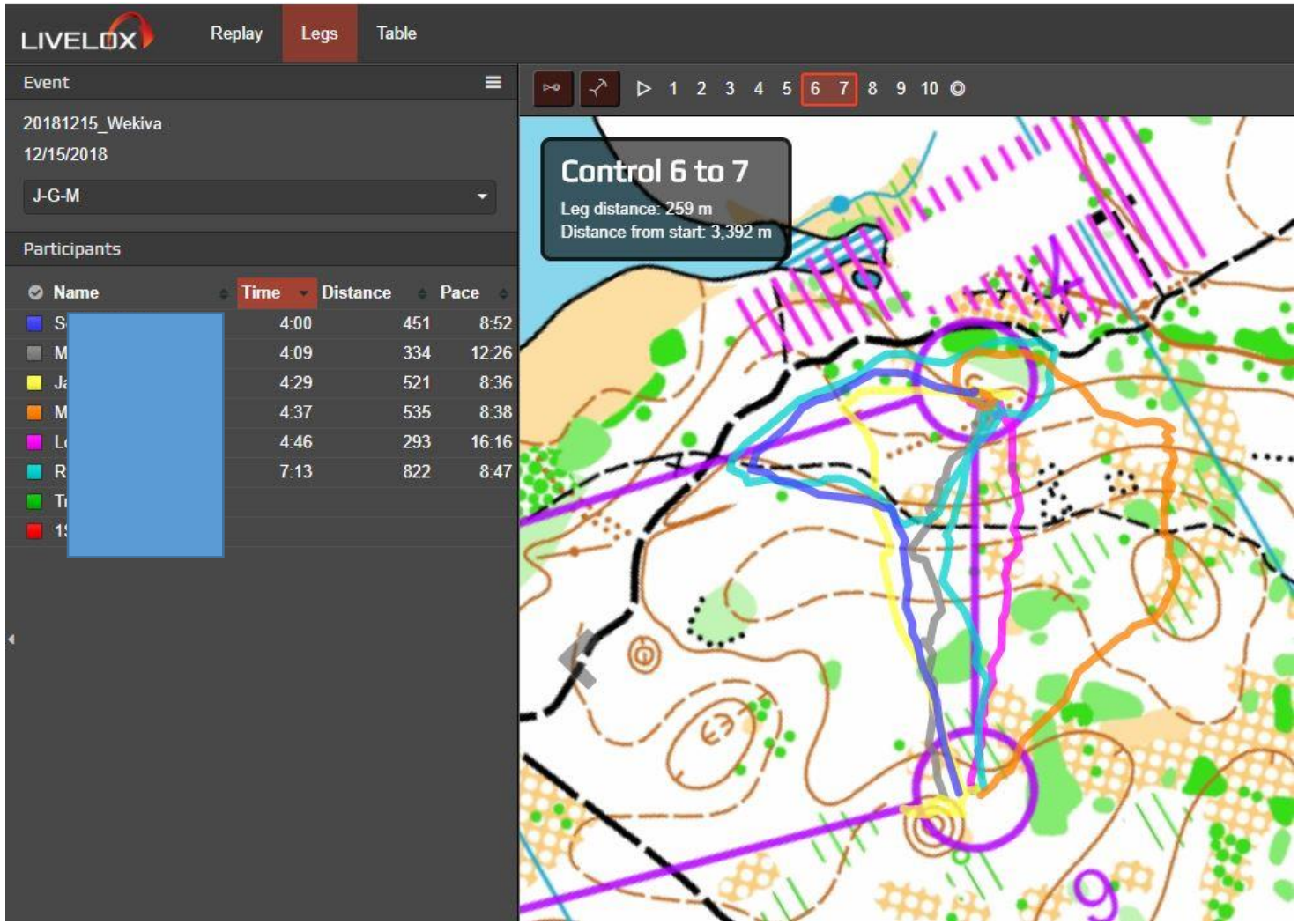
What Are We Seeing?

The Livelox 'Legs' screen shows the orienteers and coaches a wealth of information:

- Leg distance
- Color coded routes
- Time taken by each orienteer
- Distance travelled by each orienteer
- Pace of each orienteer (Note gray line took the second shortest routes but took the second slowest pace doing it)



This full picture is only available to Livelox subscribers. See

https://squareup.com/store/florida_orienteering/item/livelox-annual-club-license

Note that cyan line got almost on top of the control then bailed out to re-locate. That happens but there were better bail out targets available. (Teachable moment)

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LIVELOX Replay Legs Table

Times

Pl	Name / Club	Time	Time behind	1 558 m	2 257 m	3 489 m	4 276 m	5 451 m	6 234 m	7 363 m	8 500 m	9 575 m	10 176 m	◎ 136 m
1	[redacted]	43:08	-0:11	4:17 (21)	2:35 (21)	5:33 (4)	3:17 (2)	6:00 (18)	4:44 (27)	4:09 (22)	5:19 (6)	5:30 (11)	1:16 (13)	0:28 (9)
				4:17 (21)	6:52 (11)	12:25 (5)	15:42 (2)	21:42 (2)	26:26 (5)	30:35 (5)	35:54 (5)	41:24 (2)	42:40 (1)	43:08 (1)
2		43:19	+0:11	6:16 (37)	2:45 (22)	5:38 (5)	3:52 (4)	4:59 (9)	2:06 (4)	3:47 (14)	5:22 (7)	6:22 (21)	1:34 (32)	0:38 (39)
				6:16 (37)	9:01 (30)	14:39 (13)	18:31 (8)	23:30 (5)	25:36 (3)	29:23 (3)	34:45 (2)	41:07 (1)	42:41 (2)	43:19 (2)
3		46:39	+3:31	2:38 (1)	1:23 (1)	6:33 (12)	6:02 (25)	12:47 (37)	1:36 (1)	2:50 (1)	3:51 (1)	7:27 (30)	1:05 (6)	0:27 (8)
				2:38 (1)	4:01 (1)	10:34 (1)	16:36 (3)	29:23 (14)	30:59 (9)	33:49 (8)	37:40 (8)	45:07 (4)	46:12 (3)	46:39 (3)
4		47:13	+4:05	3:45 (12)	2:06 (8)	4:45 (2)	8:50 (40)	4:56 (8)	2:19 (9)	3:57 (20)	5:50 (14)	8:36 (35)	1:32 (30)	0:37 (36)
				3:45 (12)	5:51 (6)	10:36 (2)	19:26 (9)	24:22 (6)	26:41 (6)	30:38 (6)	36:28 (7)	45:04 (3)	46:36 (4)	47:13 (4)
5		47:17	+4:09	3:24 (5)	3:10 (27)	7:52 (30)	5:45 (23)	6:33 (30)	3:46 (20)	3:47 (14)	5:39 (11)	5:40 (14)	1:09 (8)	0:33 (23)
				3:24 (5)	6:34 (8)	14:26 (10)	20:11 (12)	26:43 (11)	30:29 (8)	34:16 (9)	39:55 (9)	45:35 (5)	46:44 (5)	47:17 (5)
6		48:08	+5:00	5:13 (30)	2:04 (7)	4:42 (1)	3:31 (3)	5:53 (14)	2:07 (6)	3:47 (14)	8:51 (40)	10:04 (41)	1:27 (26)	0:29 (13)
				5:13 (30)	7:17 (14)	11:59 (3)	15:30 (1)	21:23 (1)	23:30 (1)	27:17 (1)	36:08 (6)	46:12 (6)	47:39 (6)	48:08 (6)
7		50:40	+7:32	11:23 (49)	2:11 (11)	6:02 (6)	5:25 (26)	5:58 (16)	1:46 (2)	3:04 (3)	6:52 (29)	6:16 (19)	1:06 (7)	0:35 (28)
				11:23 (49)	13:34 (46)	19:36 (29)	25:01 (20)	30:59 (16)	32:47 (11)	35:51 (10)	42:43 (10)	48:59 (7)	50:05 (7)	50:40 (7)
8		51:45	+8:37	6:32 (39)	4:18 (41)	6:44 (14)	8:20 (38)	4:41 (6)	2:44 (12)	3:49 (17)	6:34 (24)	5:55 (17)	1:26 (24)	0:42 (46)
				6:32 (39)	10:50 (38)	17:34 (25)	25:54 (22)	30:35 (15)	33:19 (12)	37:08 (11)	43:42 (11)	49:37 (8)	51:03 (8)	51:45 (8)
9		56:22	+13:14	3:34 (8)	2:02 (6)	8:01 (23)	4:39 (16)	3:57 (1)	4:01 (24)	3:53 (18)	5:32 (10)	18:54 (47)	1:23 (22)	0:26 (4)
				3:34 (8)	5:36 (5)	13:37 (7)	18:16 (7)	22:13 (3)	26:14 (4)	30:07 (4)	35:39 (4)	54:33 (9)	55:56 (9)	56:22 (9)
10		56:55	+13:47	3:40 (9)	2:23 (15)	11:11 (36)	5:21 (19)	11:00 (34)	5:37 (29)	3:20 (7)	6:00 (17)	6:31 (23)	1:23 (22)	0:29 (13)
				3:40 (9)	6:03 (7)	17:14 (24)	22:35 (17)	33:35 (19)	39:12 (15)	42:32 (13)	48:32 (12)	55:03 (10)	56:26 (10)	56:55 (10)
11		59:02	+15:54	4:07 (16)	2:31 (18)	7:53 (21)	20:18 (49)	5:54 (15)	2:12 (7)	3:46 (13)	5:05 (5)	5:26 (9)	1:20 (19)	0:30 (18)
				4:07 (16)	6:38 (9)	14:31 (12)	34:49 (33)	40:43 (24)	42:55 (17)	46:41 (15)	51:46 (14)	57:12 (11)	58:32 (11)	59:02 (11)
12		1:00:09	+17:01	3:14 (2)	4:53 (44)	5:57 (7)	6:10 (26)	4:15 (3)	8:12 (33)	12:00 (47)	6:07 (18)	7:14 (29)	1:39 (36)	0:28 (9)
				3:14 (2)	8:07 (22)	14:04 (9)	20:14 (13)	24:29 (7)	32:41 (10)	44:41 (14)	50:48 (13)	58:02 (12)	59:41 (12)	1:00:09 (12)
13		1:02:08	+19:00	3:28 (6)	1:46 (3)	10:08 (31)	5:58 (24)	13:49 (38)	8:22 (34)	4:25 (27)	6:48 (27)	5:41 (15)	1:17 (16)	0:26 (4)
				3:28 (6)	5:14 (3)	15:22 (18)	21:20 (14)	35:09 (20)	43:31 (18)	47:56 (18)	54:44 (16)	1:00:25 (13)	1:01:42 (13)	1:02:08 (13)
14		1:02:36	+19:28	5:26 (33)	6:18 (47)	4:53 (3)	6:11 (28)	5:00 (10)	7:22 (30)	11:51 (46)	8:10 (38)	5:25 (8)	1:27 (26)	0:33 (23)
				5:26 (33)	11:44 (43)	16:37 (22)	22:48 (18)	27:48 (12)	35:10 (13)	47:01 (16)	55:11 (17)	1:00:36 (14)	1:02:03 (14)	1:02:36 (14)
15		1:03:28	+20:20	4:39 (26)	3:03 (25)	8:10 (24)	10:24 (41)	16:11 (41)	3:06 (16)	3:35 (11)	7:16 (32)	5:05 (3)	1:27 (26)	0:32 (22)
				4:39 (26)	7:42 (18)	15:52 (20)	26:16 (23)	42:27 (28)	45:33 (20)	49:08 (19)	56:24 (19)	1:01:29 (16)	1:02:56 (15)	1:03:28 (15)
16		1:03:37	+20:29	6:35 (40)	2:18 (13)	6:22 (11)	4:51 (18)	5:59 (17)	18:27 (45)	4:50 (31)	6:15 (21)	5:32 (13)	1:53 (40)	0:35 (28)
				6:35 (40)	8:53 (29)	15:15 (16)	20:06 (11)	26:05 (10)	44:32 (19)	49:22 (20)	55:37 (18)	1:01:09 (15)	1:03:02 (16)	1:03:37 (16)
17		1:03:43	+20:35	3:14 (2)	2:09 (10)	7:01 (17)	4:32 (14)	27:57 (47)	2:17 (8)	3:09 (4)	6:16 (22)	5:10 (6)	1:32 (30)	0:26 (4)
				3:14 (2)	5:23 (4)	12:24 (4)	16:56 (4)	44:53 (31)	47:10 (22)	50:19 (21)	56:35 (20)	1:01:45 (17)	1:03:17 (17)	1:03:43 (17)
18		1:03:50	+20:42	3:20 (4)	1:43 (2)	8:10 (24)	4:37 (15)	5:29 (13)	2:06 (4)	3:16 (6)	4:19 (2)	29:05 (49)	1:16 (13)	0:29 (13)
				3:20 (4)	5:03 (2)	13:13 (6)	17:50 (5)	23:19 (4)	25:25 (2)	28:41 (2)	33:00 (1)	1:02:05 (19)	1:03:21 (18)	1:03:50 (18)
19		1:04:10	+21:02	4:08 (17)	4:14 (46)	12:34 (33)	4:51 (3)	5:47 (20)	7:56 (34)	5:48 (30)	6:52 (25)	7:47 (34)	1:34 (32)	0:34 (27)
				4:08 (17)	8:22 (25)	21:16 (34)	25:17 (21)	33:34 (18)	41:07 (16)	47:23 (17)	54:15 (15)	1:02:02 (18)	1:03:36 (19)	1:04:10 (19)
20		1:05:24	+22:16	4:15 (20)	3:37 (32)	8:49 (26)	5:26 (21)	6:43 (23)	18:21 (44)	3:45 (12)	5:47 (13)	6:34 (24)	1:29 (29)	0:38 (39)
				4:15 (20)	7:52 (20)	16:41 (23)	22:07 (16)	28:50 (13)	47:11 (23)	50:56 (22)	56:43 (21)	1:03:17 (20)	1:04:46 (20)	1:05:24 (20)
21		1:06:22	+23:14	5:16 (31)	2:20 (14)	7:59 (22)	4:23 (9)	5:13 (12)	2:24 (10)	3:20 (7)	4:26 (3)	29:01 (48)	1:00 (4)	1:00 (50)
				5:16 (31)	7:36 (17)	15:35 (19)	19:58 (10)	25:11 (8)	27:35 (7)	30:55 (7)	35:21 (3)	1:04:22 (24)	1:05:22 (21)	1:06:22 (21)
22		1:07:04	+23:56	3:55 (15)	7:48 (52)	16:19 (45)	4:29 (13)	6:18 (19)	12:27 (41)	3:53 (18)	6:14 (20)	3:59 (1)	1:14 (11)	0:28 (9)
				3:55 (15)	11:43 (42)	28:02 (39)	32:31 (31)	38:49 (23)	51:16 (26)	55:09 (25)	1:01:23 (23)	1:05:22 (22)	1:06:36 (22)	1:07:04 (22)

Livelox Table

This is the way many clubs display their Results. It shows:

- **Everyone in the class, not just the Livelox users.**
- Each orienteer's time for each leg (top line) And cumulative (lower line).
- Each orienteer's placing for leg and current cumulative placing
- The best (red) and second best (blue) times for each leg and cumulative.
- Note how the orienteer that eventually finished sixth actually led the race for four legs.
- Note how the orienteer who finished 18th led the race after control 8 then spent 29 minutes looking for the next control and fell to 19th.

I like that even those way down in the results can find a gem here and there! See the green circles for examples.

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Know the Game

Young orienteers should be learning a number of orienteering techniques. The sport is not an all out sprint. It is not even a steady paced cross country race.
Success in orienteering calls for a variety of speeds and techniques.
Your team should be familiar with and use:

Basics

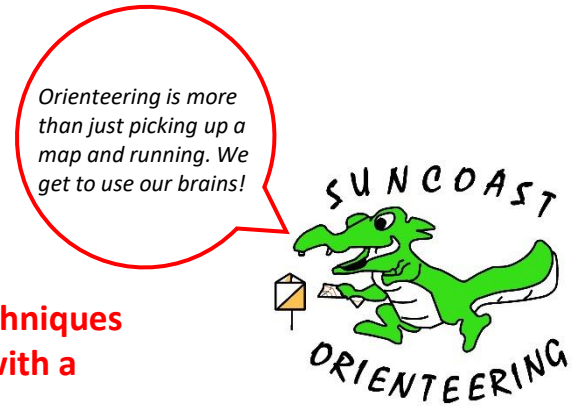
- Compass Bearings/ Azimuths
- Distance measurements
- Map and clue sheet symbols

Navigation Techniques

- Rough map reading
- Precision map reading
- Rough compass
- Precision Compass
- Traffic light orienteering

Using terrain and map features

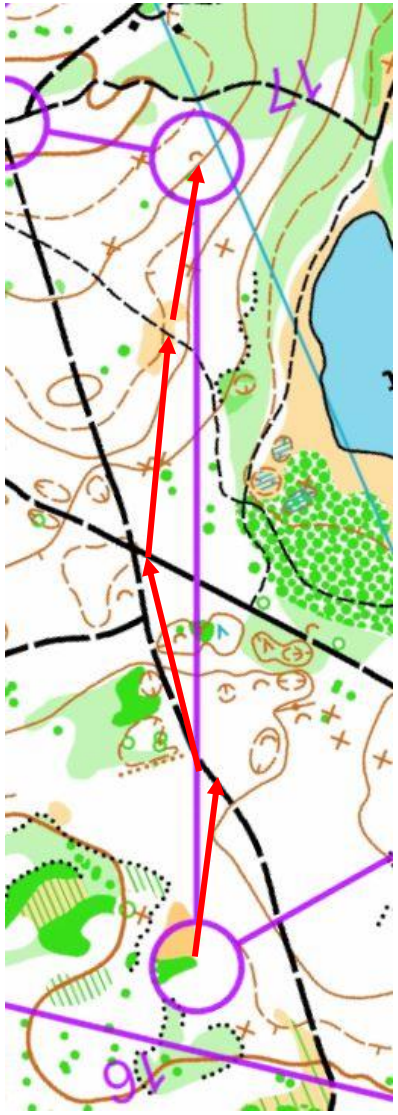
- Handrails
- Off-aiming
- Attack points
- Landmarks
- Catching/ Collecting Features and
- "Direction, Distance, Landmarks and Attack Point (DeeDeeLAP)"



The rest of this presentation will deal with how to use Livelox replay to demonstrate using navigation techniques and terrain/map features. These are examples only. Pretty well every leg on every course provides you with a coaching opportunity.

Navigation Techniques

- Rough map reading
- Precision map reading
- Rough compass
- Precision Compass
- Traffic light orienteering



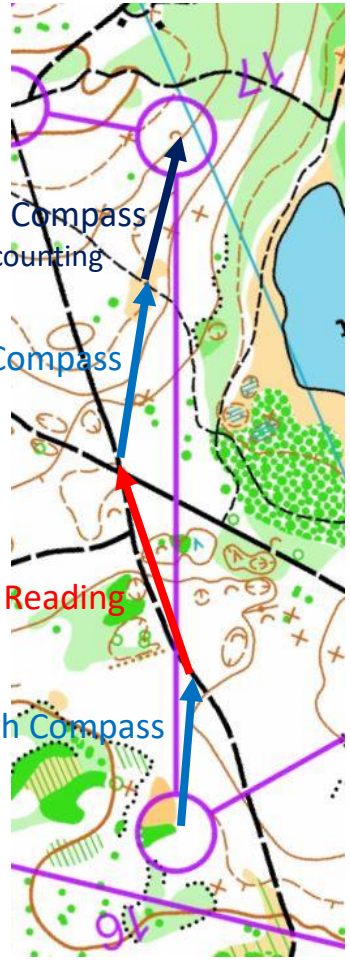
Take an orienteering leg such as this.
An orienteer might choose to go the red line route. It is one route but not the only route and one technique does not fit all parts of the route. The good orienteers will be flexible in choosing how they navigate this leg.

Navigation Techniques

- Rough map reading
- Precision map reading
- Rough compass
- Precision Compass
- Traffic light orienteering

Sometimes you can go all out. Sometimes you have to slow down and be a bit more careful.

Rough / Precision Orienteering



As the orienteering coach reviews Livelox routes he/she looks for opportunities to reinforce the importance of using these varied techniques. The good news is that all legs can be broken down this way. Some will be all one technique or another but all call for some combination of rough and precision orienteering, map or compass predominance.

Traffic Light Orienteering is another way to explain it

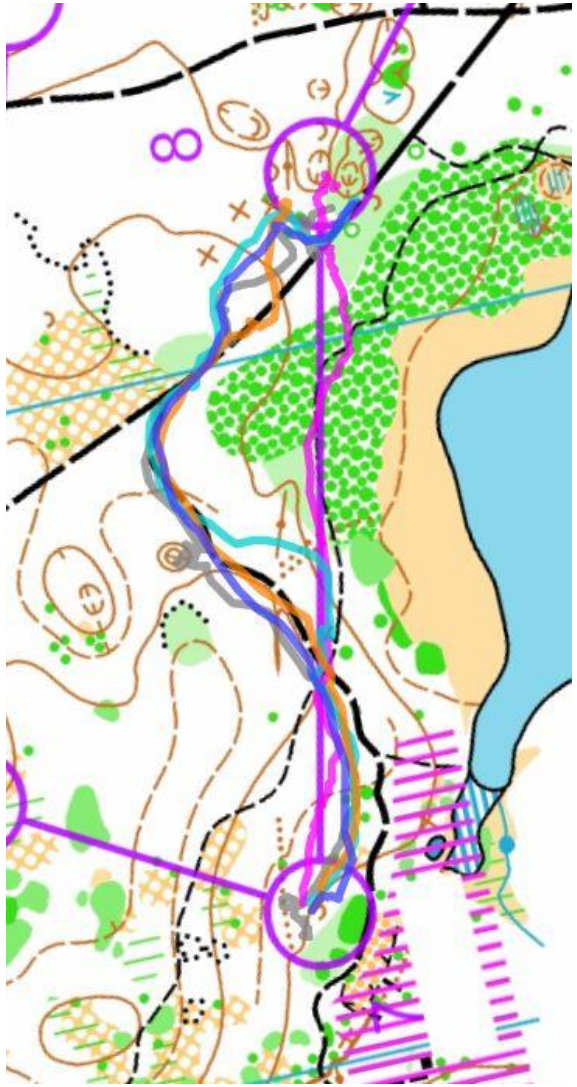
Sometimes you must be very cautious –Red light

Sometimes you proceed with some caution –Amber light

Sometimes you can go all out –Green Light

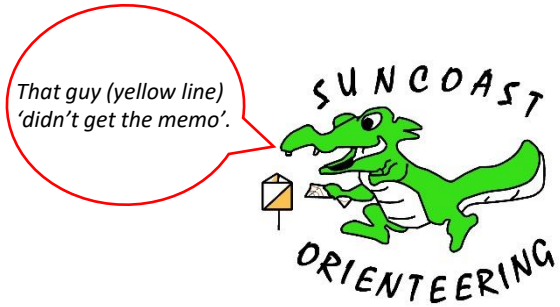
Using terrain and map features

- Handrails
- Off-aiming
- Attack points
- Landmarks
- Catching/ Collecting Features and
- Direction, Distance, Landmarks and Attack Point (DeeDeeLAP)



Handrails are linear features such as roads, trails, power lines, fences, edges of water features that help guide the orienteer along the way.
These orienteers all used the trails as handrails until each felt comfortable with an attack point.

Probably not paying attention to distance



Using terrain and map features

- Handrails
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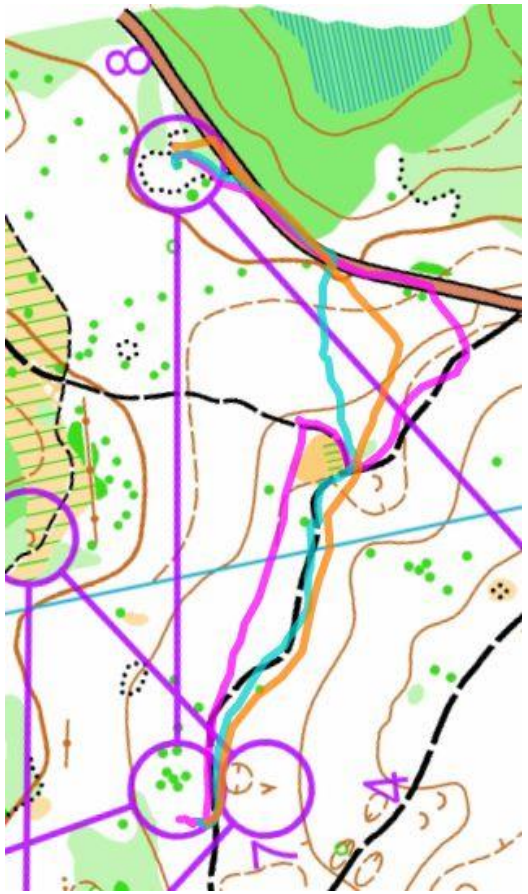


Off-Aiming

The times and distances were recorded for the leg in these two diagrams.

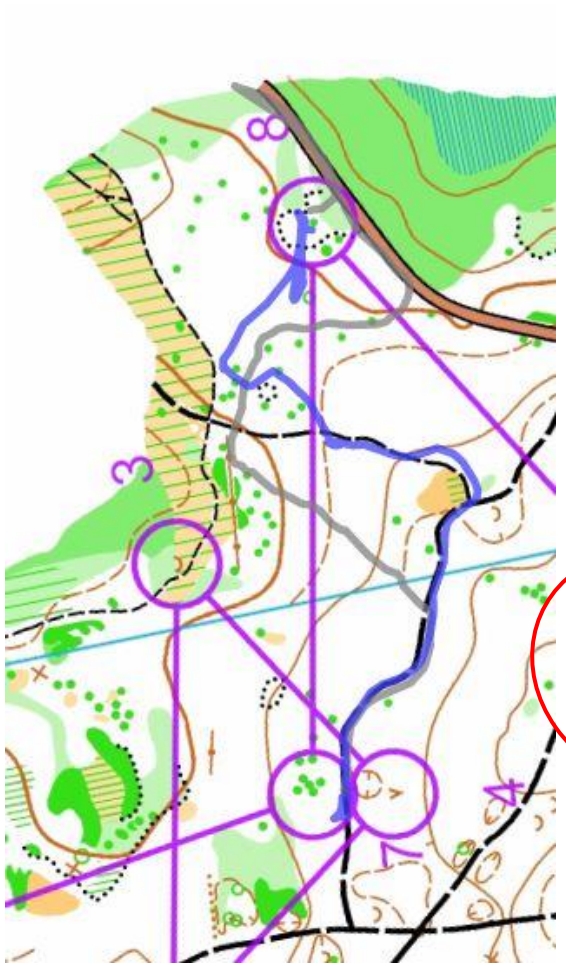
What caused the difference?

The three orienteers with the best times –all shown on the map on the left – all selected to off-aim to the road and then turn left to attack the control.

The two orienteers with the higher times –shown on the map on the right - chose different routes where off aiming could not be used. This resulted in longer distance traveled and longer times taken.

Participants

Name	Time	Distance	Pace
C	4:26	686	6:28
A	5:40	689	8:13
J	6:50	872	7:50
J	8:10	1,005	8:08
A	15:14	1,089	13:59



Look at the cyan and gold routes. Taking shortcuts to easy to find features can save time and distance.

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Using terrain and map features

- Handrails
- Off-aiming
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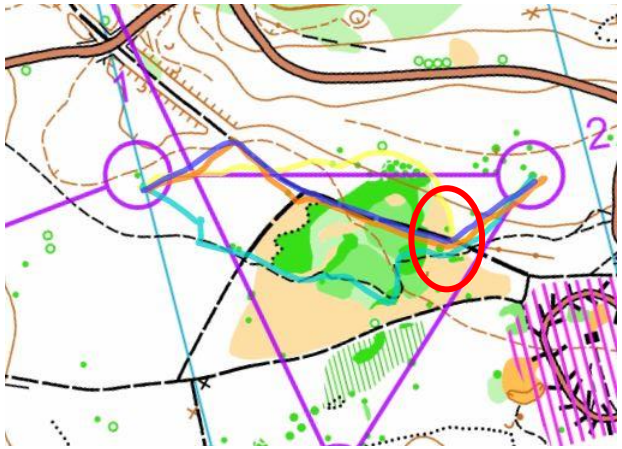
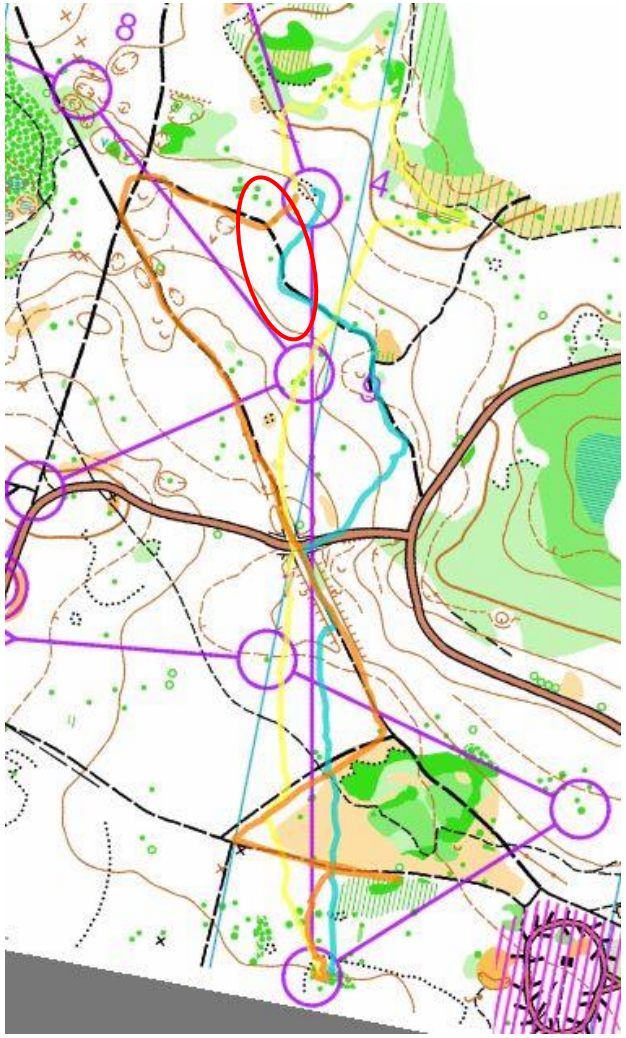
- Direction, Distance, Landmarks and

Attack Point (DeeDeeLAP)



Three different routes; same Attack Point

Attack Points

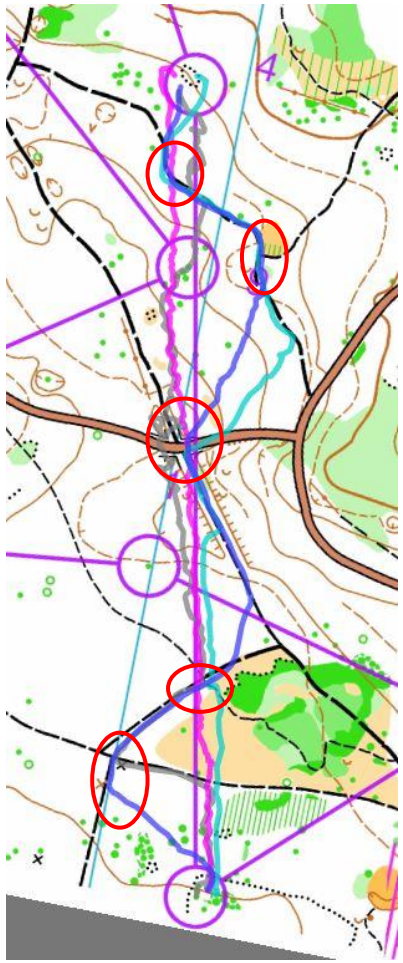


It is not much of a surprise that by using either of the good attack points, the trail bends, the Brown and Cyan orienteers came right on the control. The Yellow orienteer continued on a rough line, overshot the leg and spent a considerable time and distance wandering.

SUNCOAST ORIENTEERING

Using terrain and map features

- Handrails
- Off-aiming
- Attack points
- Landmarks
- Catching/ Collecting Features and
- Direction, Distance, Landmarks and Attack Point (DeeDeeLAP)

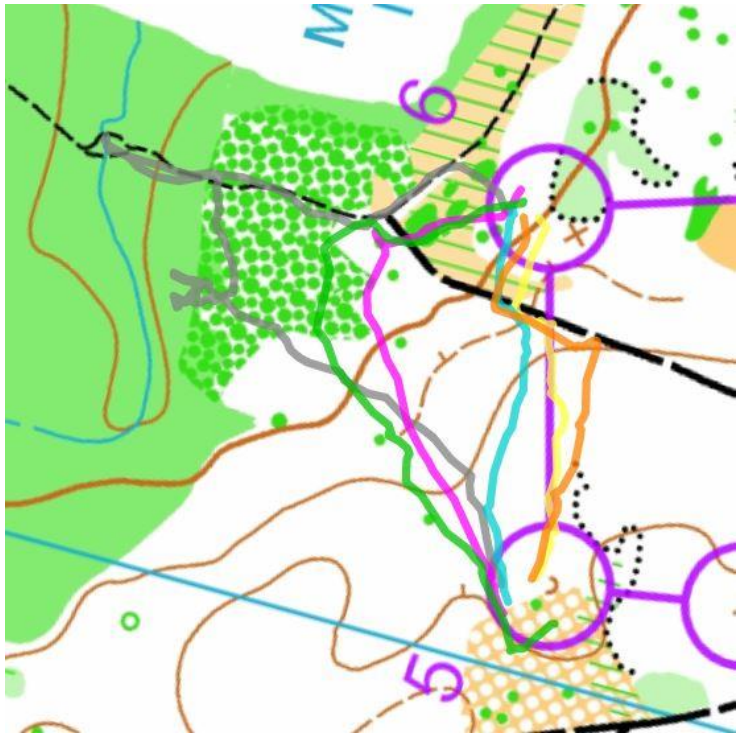


Landmarks

On this fantastic leg orienteers use several different landmarks (red circles) to keep track of their location and to make direction adjustments.

Landmarks

This leg 5-6 shows several orienteers using rough compass (a few more roughly than others) to get to a trail which will 'catch' them and give them a chance to use a close attack point to the control.



***Landmark** is a relatively new term in orienteering. It means the mapped features we see along the way. Landmarks can tell us we are on course or tell us we are off course and need to correct.*

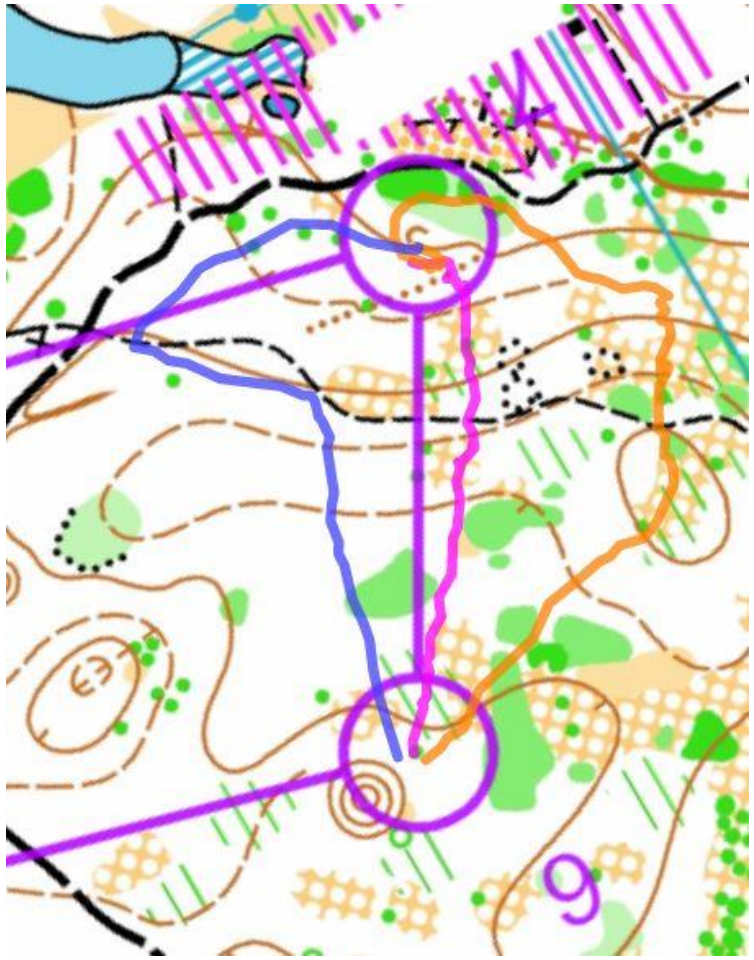
SUNCOAST ORIENTEERING

Using terrain and map features

- Handrails
- Off-aiming
- Attack points
- Landmarks
- Catching/ Collecting Features and
- Direction, Distance, Landmarks and Attack Point (DeeDeeLAP)

Catching (Gathering or Collecting) Features.

A catching (gathering or collecting) feature is something that you can use to know whether you've actually missed, or overshot your intended target.
– Orienteering USA

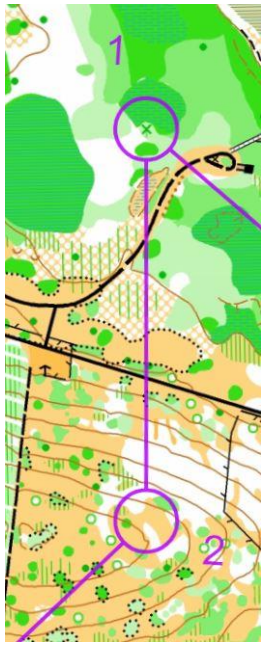


Magenta orienteer 'spiked' the control right on. It looks as if Blue and **Gold** orienteers missed to the left and right but were able to use the trail beyond to catch themselves and find their ways back to the control.

SUNCOAST ORIENTEERING

Using terrain and map features

- Handrails
- Off-aiming
- Attack points
- Landmarks
- Catching/ Collecting Features and
- Direction, Distance, Landmarks and Attack Point (DeeDeeLAP)



Direction, Distance, Landmarks and Attack Point (DeeDeeLAP)

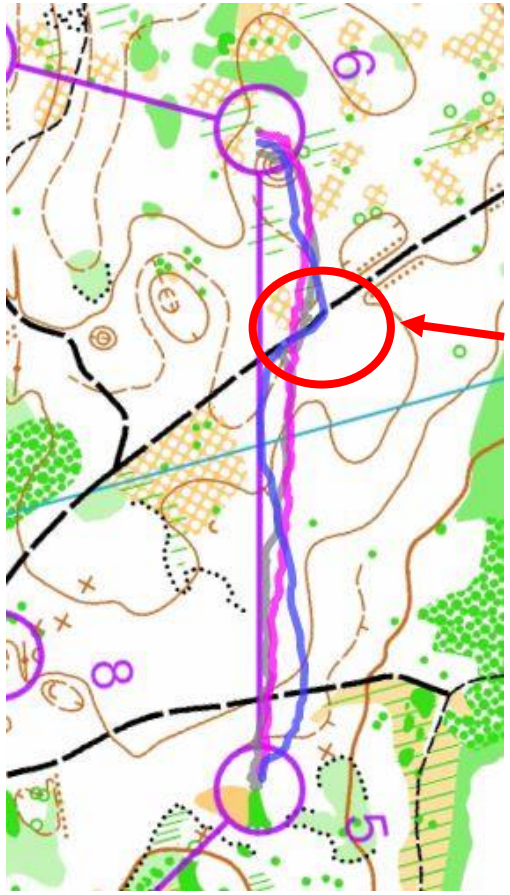
Every orienteering course and every leg on every course is different.
Despite the differences when an orienteer is planning the route for each leg the process is the same and should be instilled into the thought process of every orienteer.
Be certain of the Direction
Know the important Distances
Know what Landmarks you expect to see
Is there a preferred Attack Point? Make the route to the Attack Point, not the control

Looking for classroom exercises for your team?
Have them pick DeeDeeLAP from maps of past and future competitions.
They're all at www.floridaorienteering.org in the Results Livelox section.

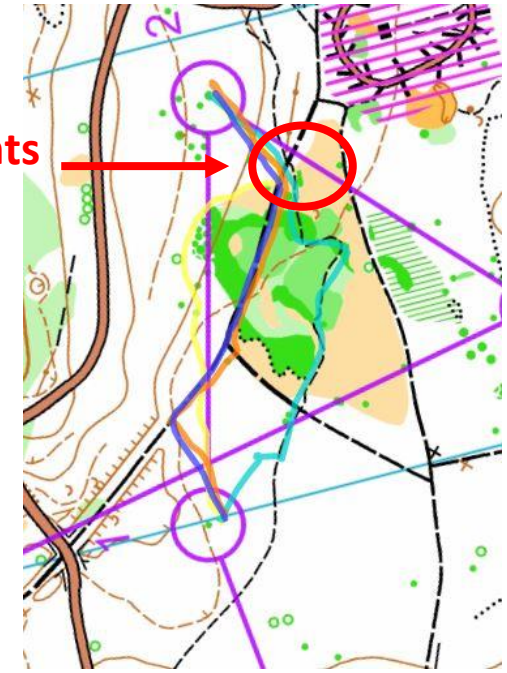
Route planning does not have to take place at one control going to the next. It should not take place when standing at a control. That just helps you lead your competitors to their target. Use 'Green light' running opportunities as the chance to plan ahead.

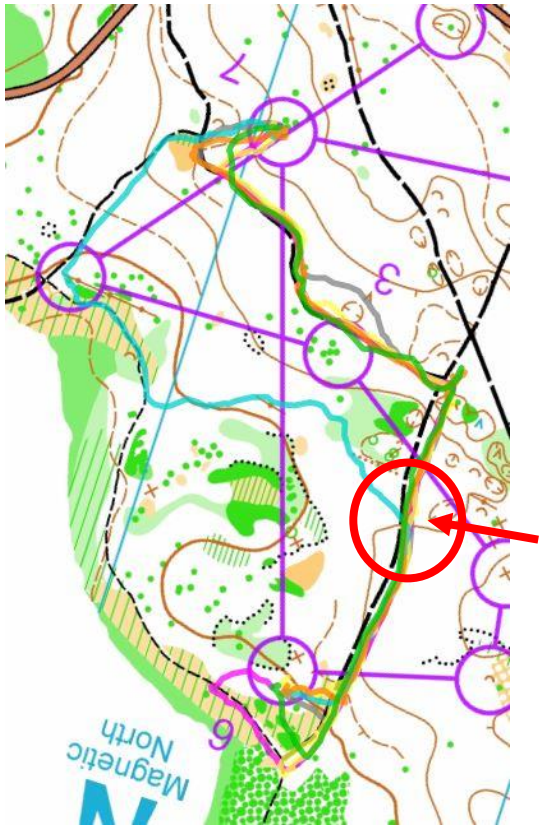
SUNCOAST ORIENTEERING

Good Direction, Distance and Attack Points



Attack Points

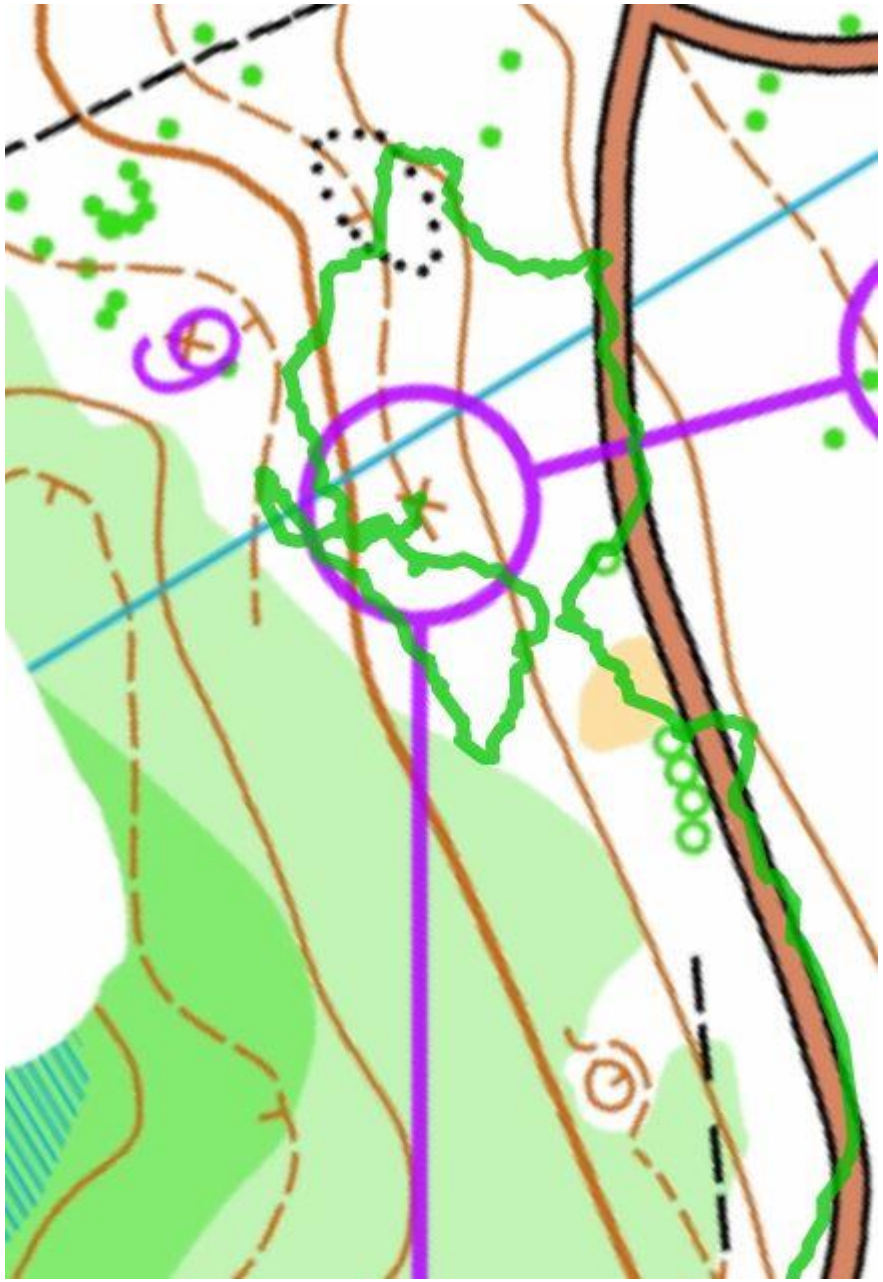




Why Here?

Good attacks but Cyan abandoned trail for some strange reason. Stress to your team to use ‘handrails’ as long as possible.

SUNCOAST ORIENTEERING



Good Attack Point and initial Direction but poor distance judgement caused orienteer to abandon attack too soon then wander.

MISSED!

Stop! Think! Can you identify any feature in sight? No? When did you last know where you were on the map? What have you passed since then? Check your pace counting. Do not rush away aimlessly or then a small miss becomes a big one.

WHY MIGHT YOU MISS?

Because:

You run with the same speed everywhere – too slow when it is easy, too fast when it is difficult.

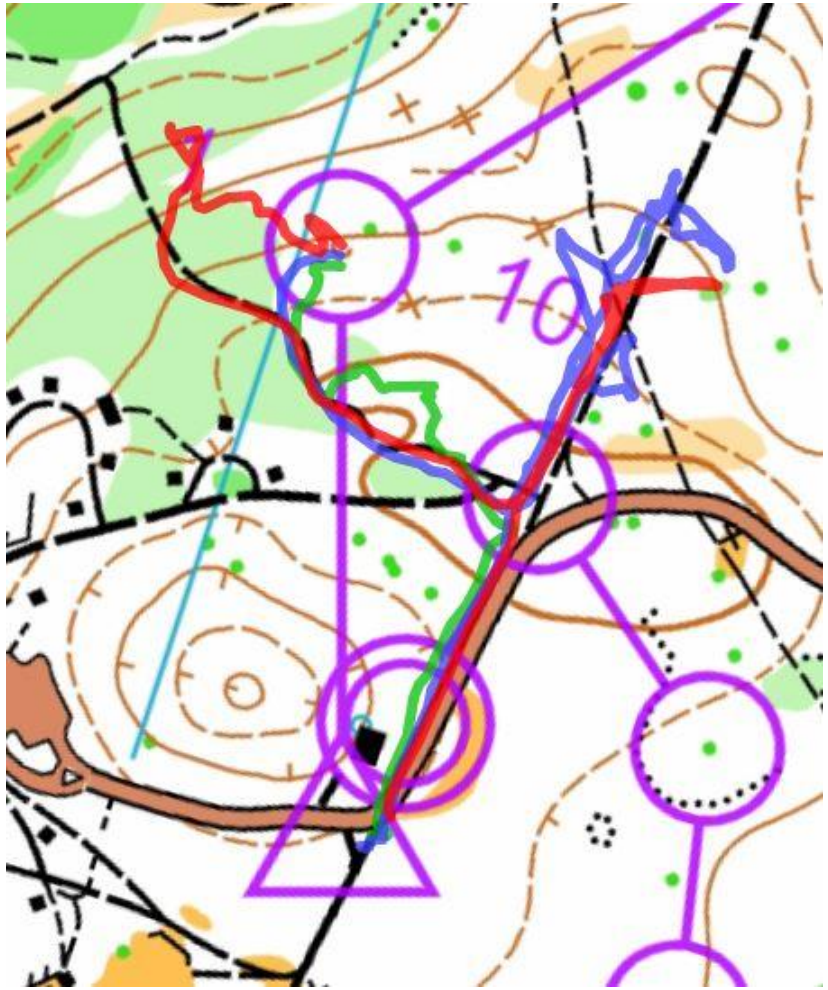
You run until you get too tired to think clearly.

You have no sure attack point.

You don’t concentrate on your task; you must be on your toes at all times.

You overlook an important catching feature.

You let others draw you off your chosen route.

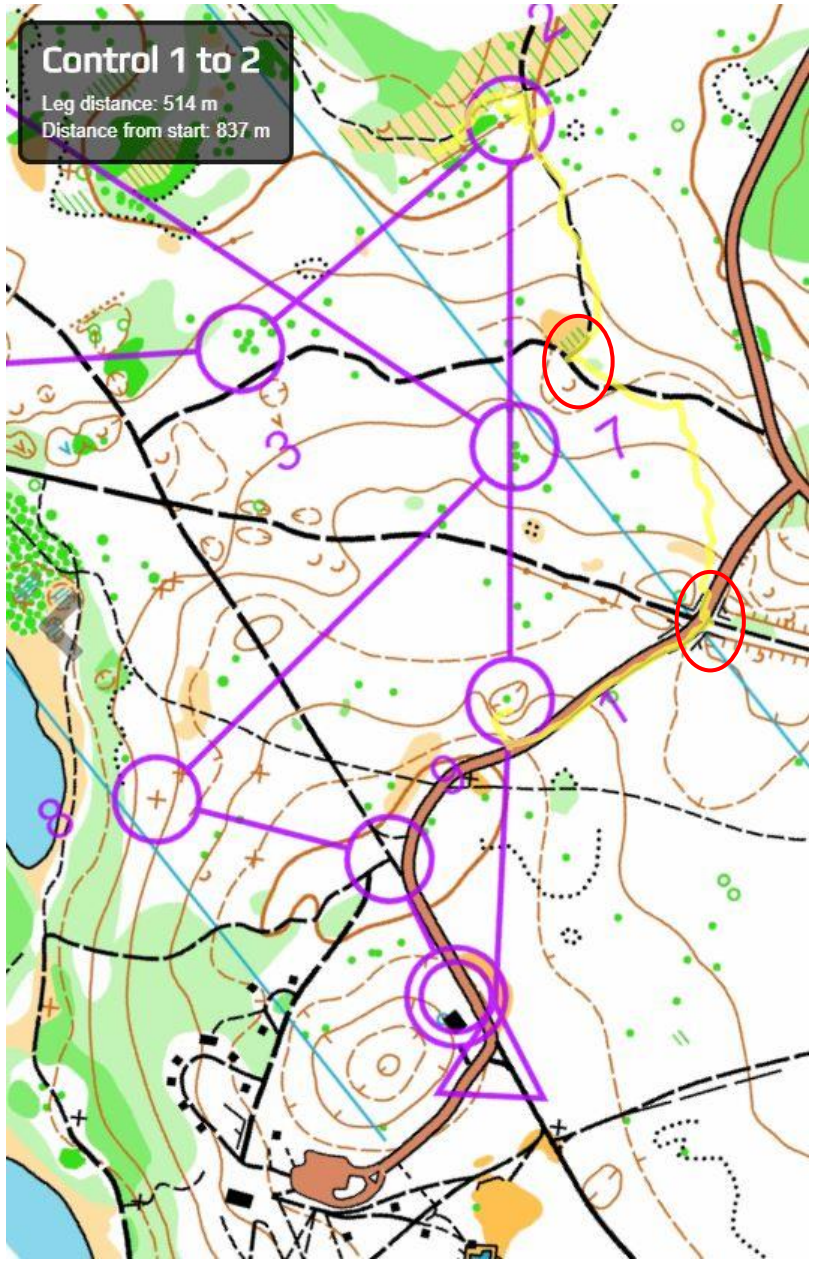


SUNCOAST ORIENTEERING

BONUS TIP:

The compass is not the only way to find direction. Any linear feature can be used like a compass. Estimate the angle off the line on the map then go off the feature on the ground at the same angle. Sight on an object on the line.

SUNCOAST ORIENTEERING



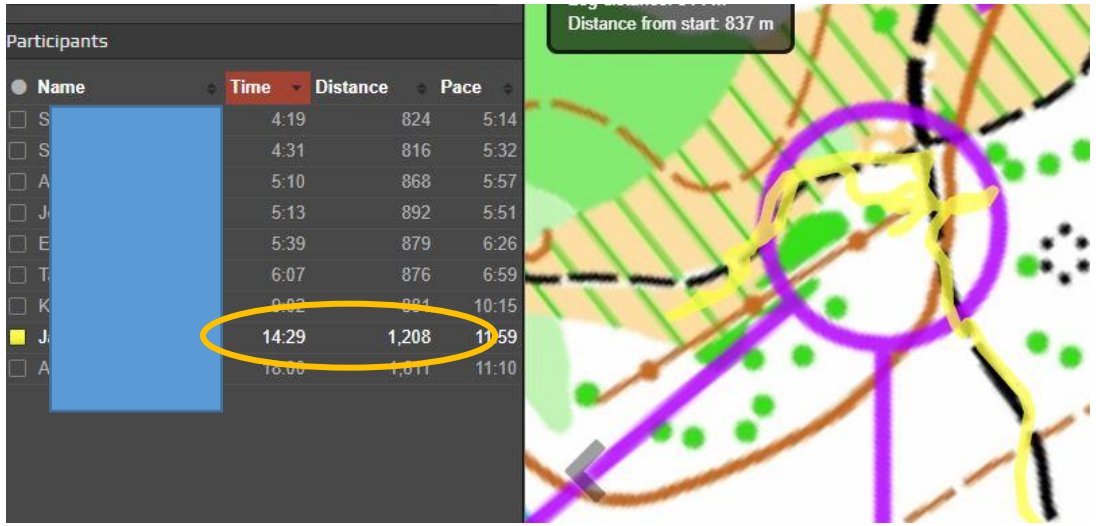
How do we help our orienteer become better?

Like any sport we reinforce the positive, encourage and supply strategies for improvement where needed.

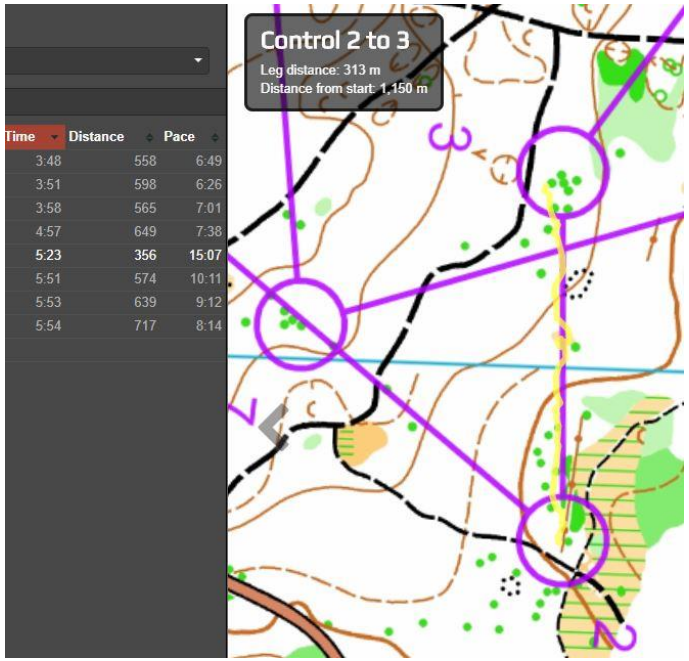
Here follows the story of one athlete on one course, the Female Orange (Intermediate) Course at Wekiva Springs, her first Orange course. She ended up with her team's second best time on the course.

Positives: Good recognition and decisions at significant landmarks (Red circles) Good rough compass to cut off distance.

Needs Improvement: Pick an attack point near the trail OR knowing the control is less than 50 meters off her trail run parallel to the trail and expect to see the feature, an embankment.



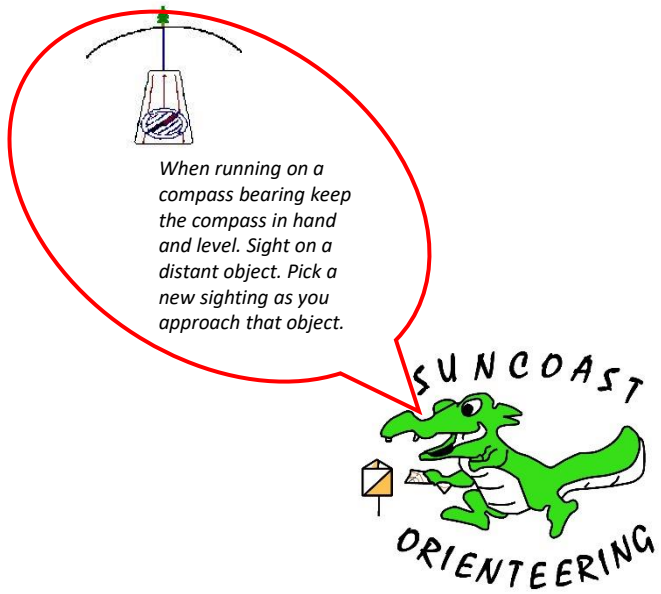
After missing the control the first time the Livelox (Yellow circle) shows she added about 700 meters to her distance and seven minutes to her time compared to most just going back and forth when an attack from the trail junction would have worked the first time as it did the last.

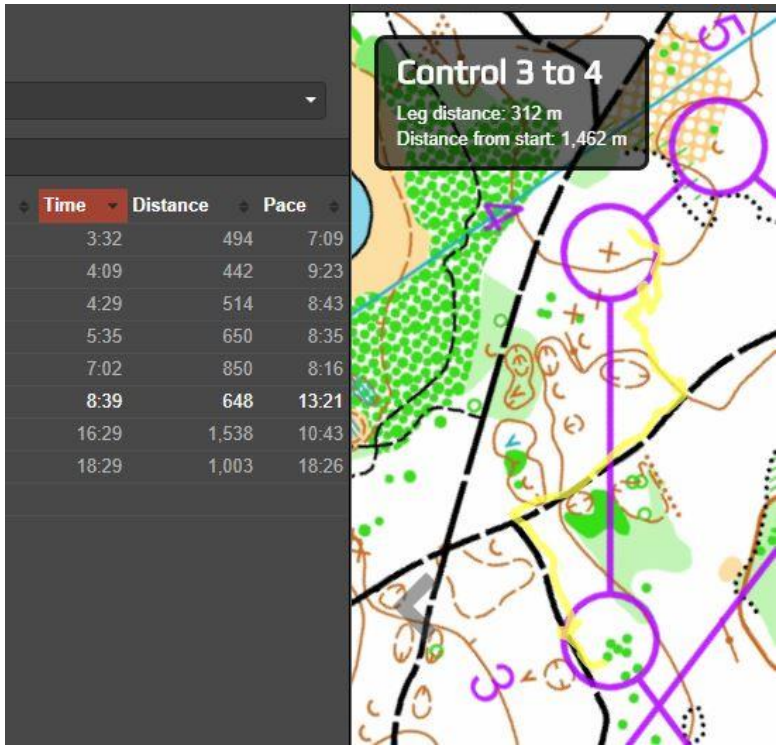


Leg 2-3 Straight compass, some minor bobbles. The straight line she was on measured at 313 m. Her gps recorded 356 m of travel.

Cadet's comments

After reorienting the map, I used precision compass and pace count to find the third control. I went about twenty-five meters before realizing I was on the wrong side of the earth wall and decided to get a running start and jump over it, then reoriented myself based on the compass housing and used the trail/trail intersection as a catching feature if need be.

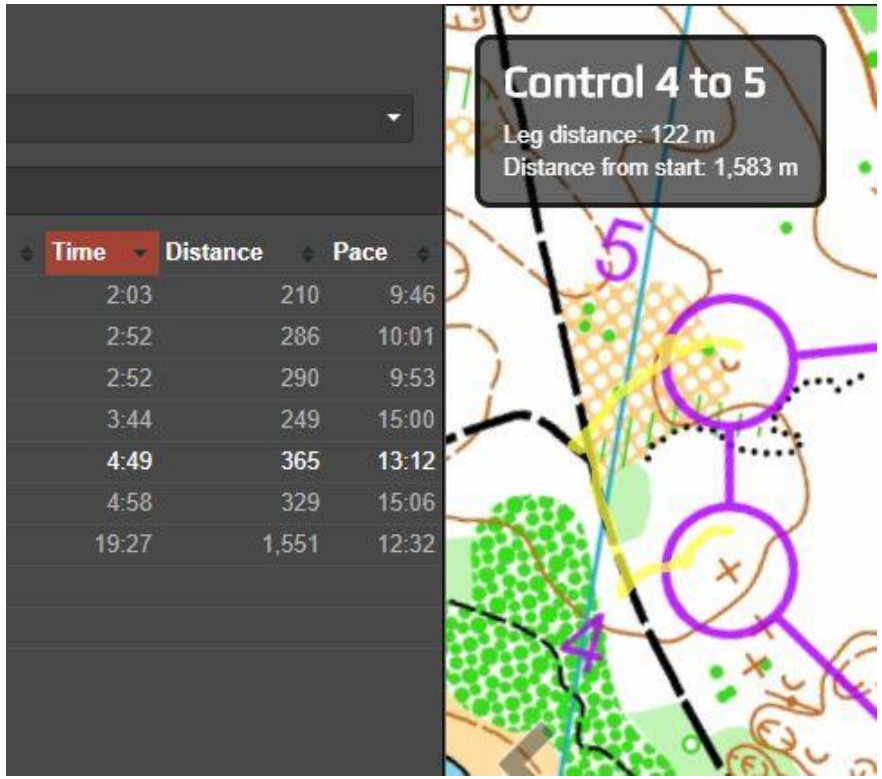




Leg 3-4 Good use of handrails but a risky attack point made safer by careful pace counting. See cadet's comments.

Cadet's comments

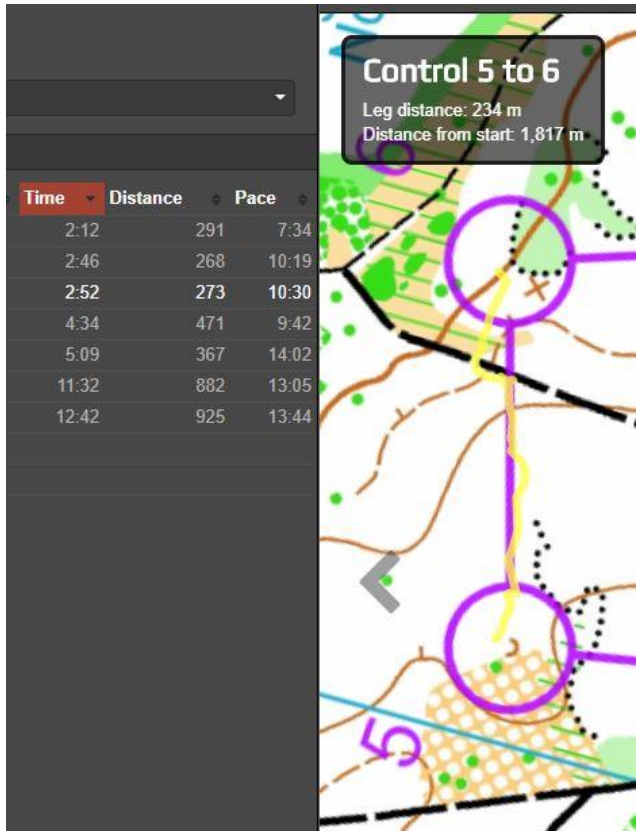
I picked up the trail after orienting the map and then used my pace count and the contour lines to use precision compass to find the next control. I knew as soon as it started to go up and when I reached my number for my pace count where I was on the trail to still be able to use precision compass without getting too far off, but still used the next trail as a catching feature. I had a little trouble with this one as there were a couple unmarked downed trees in the area.



Leg 4-5 Our cadet chose a route out to a trail and attacked from a trail junction.
That was safe but it tripled the travel distance. Sometimes a leg is so short that a control can serve as the attack point for the next control.

Cadet's comments

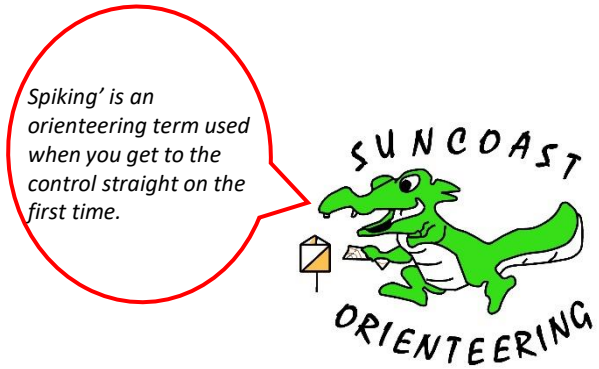
After orienting my map, I looked at my compass and continued west to find the trail and then north for the intersection. Once I reached the intersection, I used precision compass and pace count to find the shallow depression, noticing the "rough open with sc. trees" was a burned down field with patches of trees still standing.

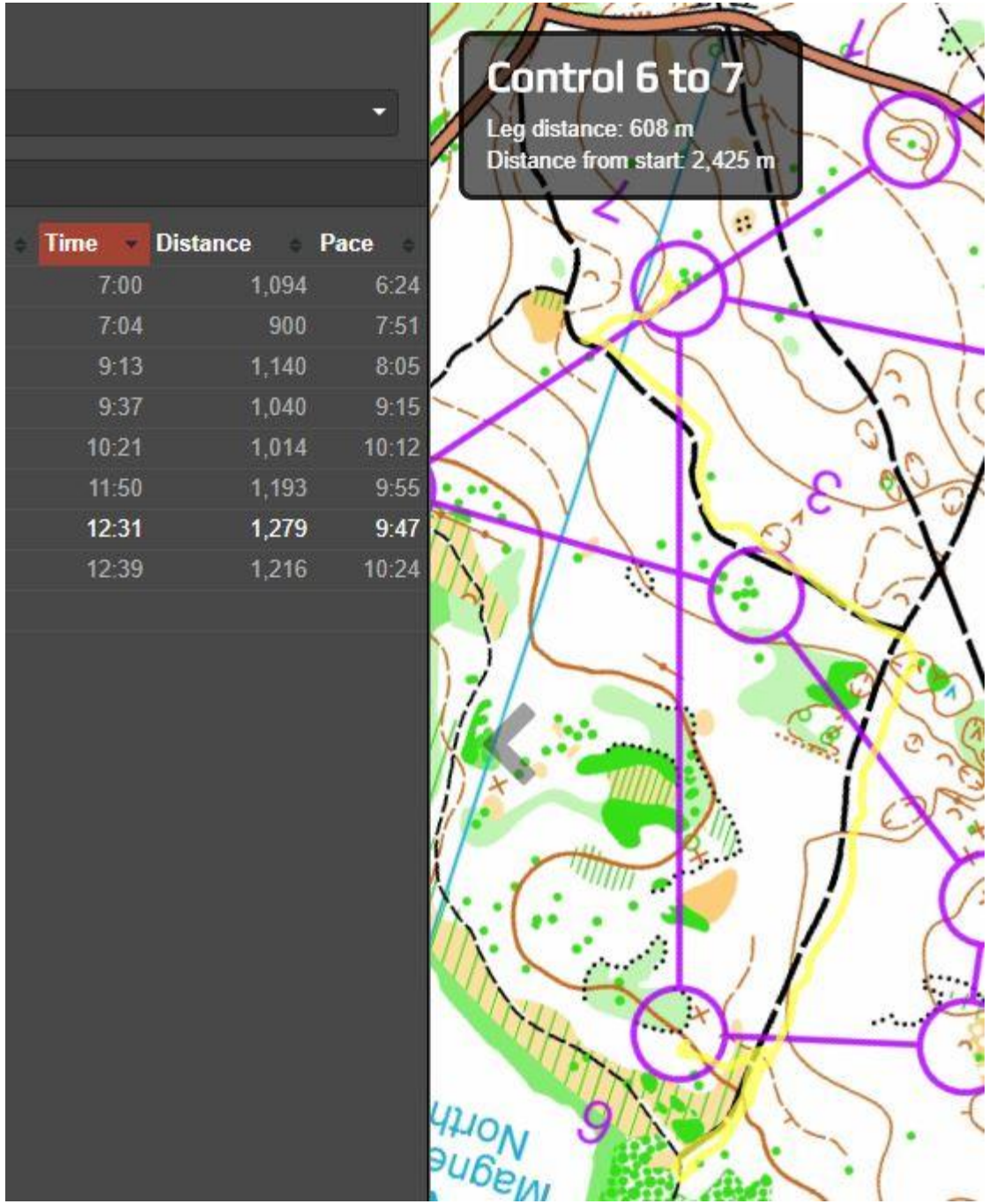


Leg 5-6 Good compass work to the trail as catching feature, adjustment to an attack point and **spiked** the control! Close to best distance traveled, too.

Cadet's comments

Straight from the shallow depression, I set my compass housing to use precision compass and then pace count the entire length. Once I reached the trail before the marker, doubled checked my azimuth and realized I was a couple degrees south, then had no trouble finding the marker.

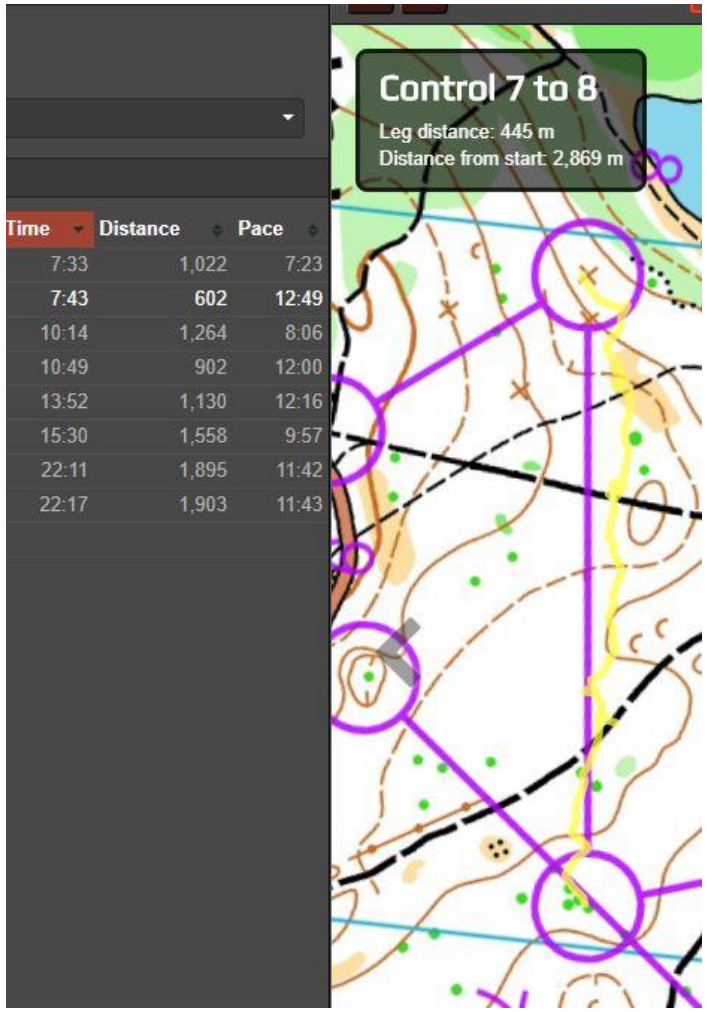




Leg 6-7 A miscue at the start of the leg when our cadet turned the wrong way but she came to the trail junction landmark, recognized it and turned around. Net cost: about 300 meters. Very good recognition of landmarks and keeping eyes open and looking around.

Cadet's comments

After reaching the sixth control, I ran back west to find the trail oriented my map north, but then I accidentally went north, but quickly realized I was going the wrong way due to the fact that my pace count and surrounding physical features told me that this was not the right intersection, realized the intersection I was at, and then ran back south to the correct intersection. From there I turned east on the trail and was going to go to the next intersection and shoot an azimuth from there, but saw the marker on the way and went to go punch it in.



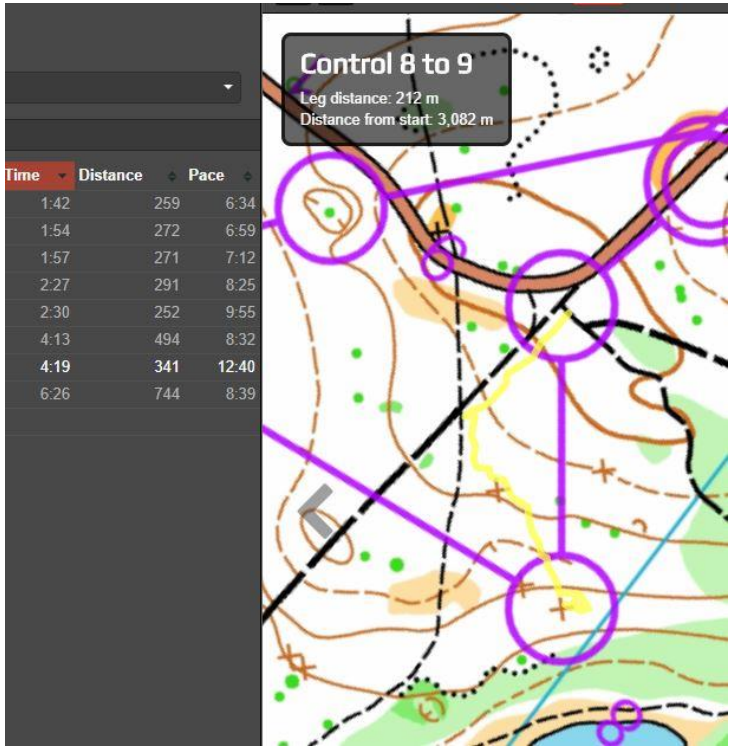
Leg 7-8 This was a very solid bit of compass navigation for our cadet– shortest distance traveled of all those recorded by Livelox. Crossed three landmarks then a good attack point. By far the shortest bit of distance traveled by all those tracked by Livelox.

Cadet's comments

I used precision compass from the center of the circle to the downed tree mark in the circle for control eight, and rechecking my compass housing at each trail I hit, knowing I would have to hit three before I reached the marker and used the vegetation as a catching feature.

'Used the vegetation (green on map) as a catching feature'. That is really good map sense, really good.

SUNCOAST ORIENTEERING



Leg 8-9 A bit of unnecessary off-aiming here. The control location, the last control, was 'framed' by trails. Go for it!

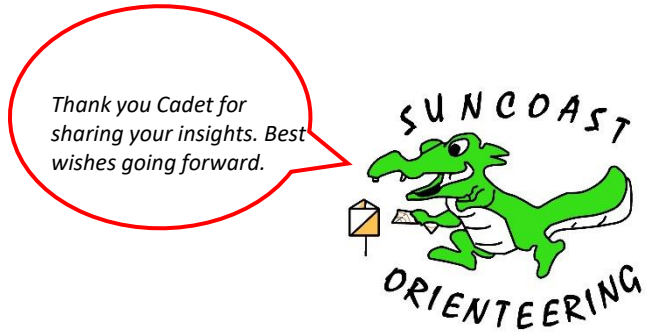
Cadet's comments

I orientated my map north, then ran back east towards the closest main trail and realized that all of the yelling was coming from the direction I needed to go, then ran south until I hit the marker at the intersection.

Control 9 to Finish:

Since I already knew where the finish was due to the fact I had seen it before I left to start, I sprinted as quickly as I could to the end being cheered on by my team.

Additional observations: Thank you cadet for sharing your routes. I like the way you fed off your teammates coming to the finish. Sometimes when out in the woods you can use the sounds from the 'event arena' as a landmark.
Coaches: encourage your team members to review their courses in a similar manner. Recalling the last competition will make them better for the next competition.



Planning a Route

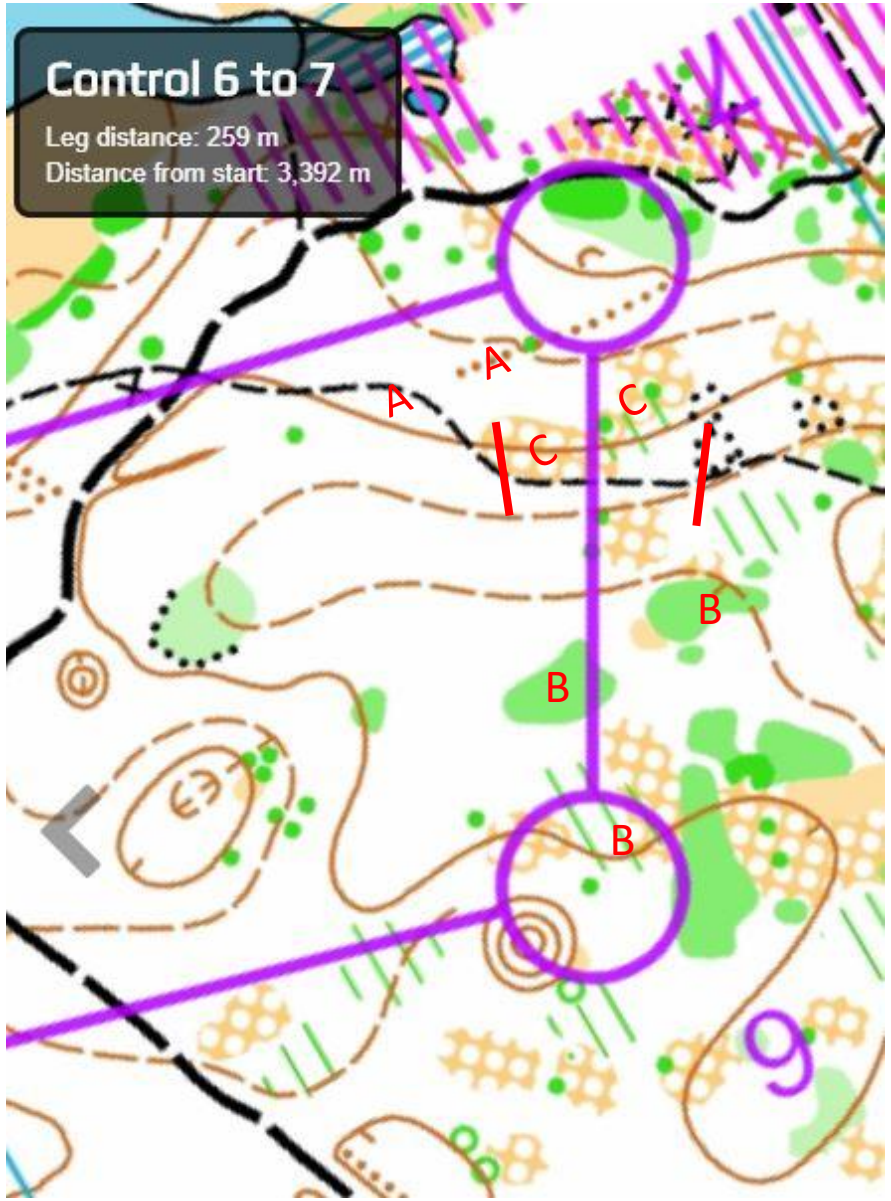
Here's a pretty simple leg. In planning the route to #7 what should the orienteer see?

A Two catching features, a trail and a dry ditch.

B Some rough running areas that will have to be skirted.

C Open meadow with a couple of thickets.

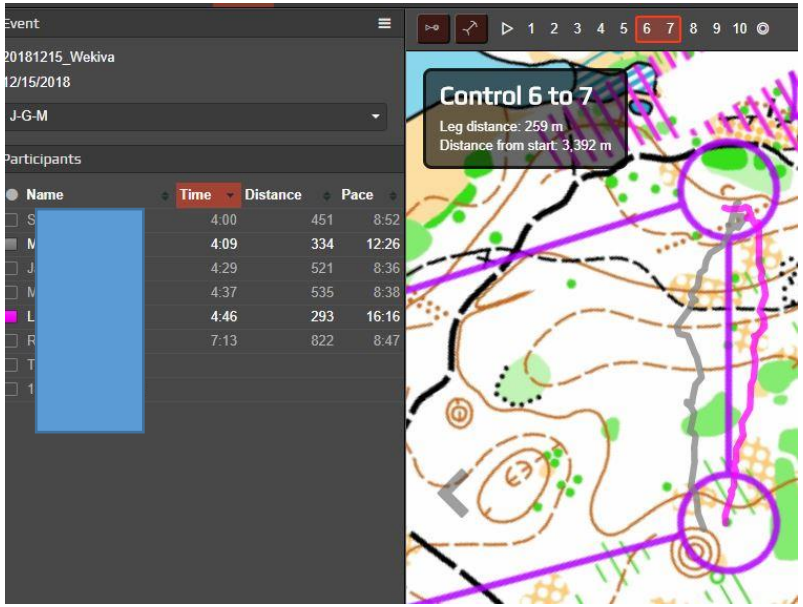
The route: Rough compass to hit the trail between the two bends. Check distance. Continue through the meadow to hit the ditch. Check distance. At the ditch can I see either end? Check distance to depression. Go carefully while looking around.



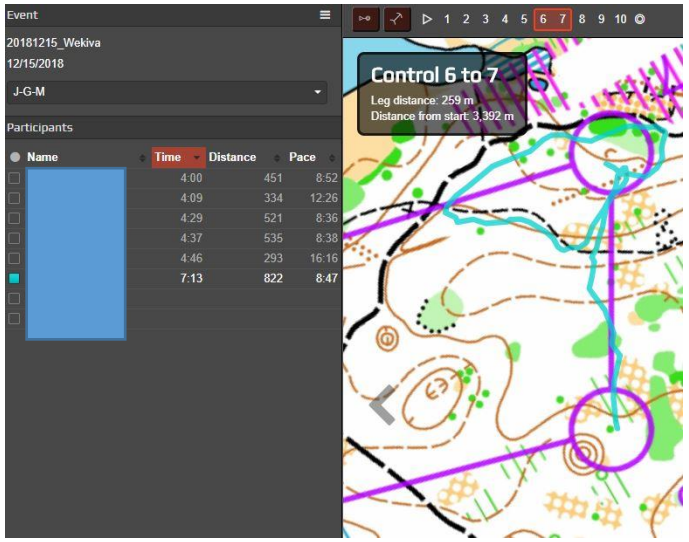
The fastest time recorded for this leg was 1:36

Simple. Right?
Go to the next slide to see what happened among our Livelox recorders.

SUNCOAST ORIENTEERING

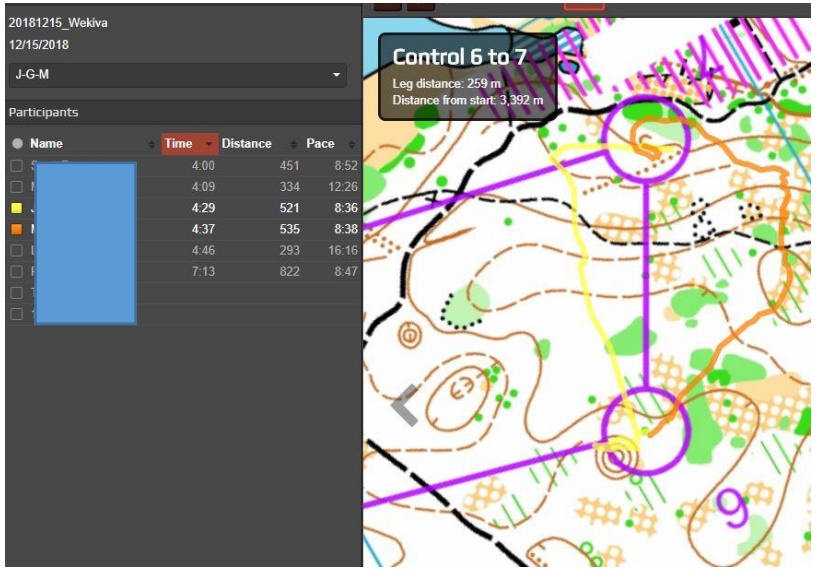


Two skirted the thick bush, hit the rough compass targets and 'spiked' the control.



One came to the catching features on line, seemed to have a good attack but then turned around and bailed out back to the trail. Bailouts happen but they don't have to be back tracks when closer targets are available.

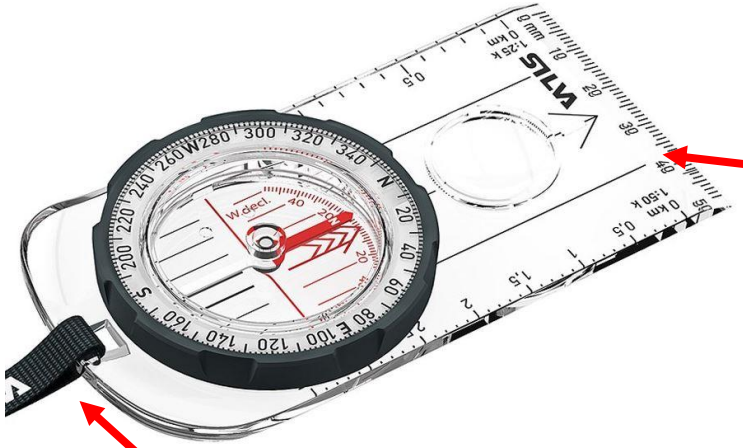
Two missed their rough compass targets but were able to make good corrections presumably when they realized their mistakes. I'd like to know how the runner on the gold line made the correction. It was a good one.



SUNCOAST ORIENTEERING

The Compass: “Keep it Handy”

I spent a lot of time out in the terrain during this Wekiva Springs event. I stood at a spot where I could see orienteers approaching and leaving no less than six controls and where they came through two important intersections.
My biggest impression? Too many cadets are not getting enough out of their compass. Most are not even holding it correctly.
The compass should always be held in a hand and held so the base plate is parallel to the ground. It should always be available to check one’s bearing / azimuth.
The base plate should always be available to check needed distances.

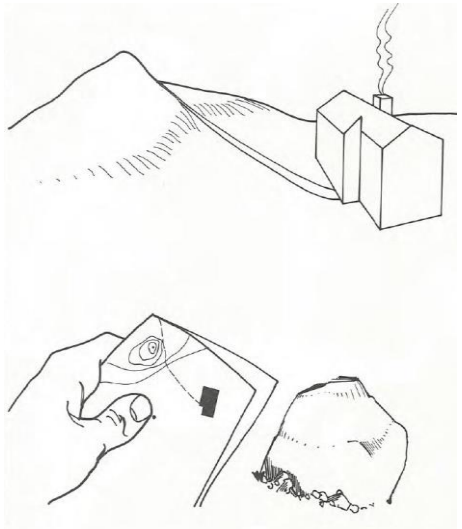


If your compasses do not have metric scales across the front get some masking tape and draw them on. It’s that important!

Directions,
Distances,
Landmarks and
Attack Points

Determined by map and compass TOGETHER

Wrist lanyards secured properly hold the compasses from getting lost and <u>keep them in hand ready for use.</u>



Holding the map ‘oriented’.

You’d never see a baseball player in the outfield with his glove hanging from his neck.

SUNCOAST ORIENTEERING

Summary

This presentation is not necessarily meant for showing to your classes. However I hope it will give you some advice on how to look at Livelox and pick out competition traits in your team and others that can be used as ‘teachable moments’ to help the cadets pick up better orienteering skills.

Much more information about rough and precision orienteering and other orienteering skills can be found through www.orienteeringusa.org

What follows is a reprint of a coaching aid produced in Sweden back in the last century. It’s still very good and has been updated with Florida maps. If you’d like copies for printing and giving out please contact me at gordhun@rogers.com

SUNCOAST ORIENTEERING

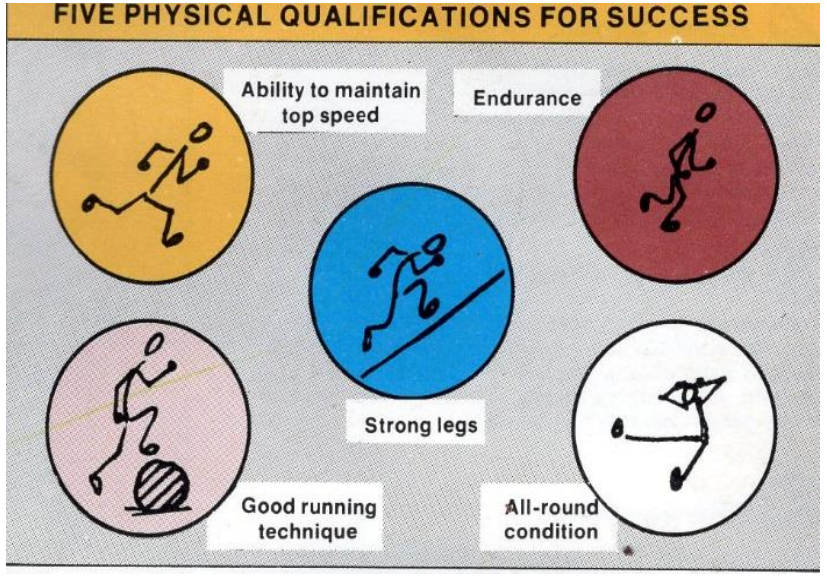
THE ORIENTEER'S REMINDER

(Originally written in Swedish by Sture Carlsson, IFK Hedemora, Sweden, translated from Swedish by Inge-Britt Bengtsson and Bob Kaill, 1971, updated by Gord Hunter 2016)

I TRAINING

Training is the only sure way to success. When the competition intensifies it's not enough to have natural talent. On the other hand it's not certain that the one who trains the most will be the best. Most important is that you

- Train in the right way!
- You must be persistent. Inclination and weather must not influence your decision to train.
- Set an immediate goal for yourself (eg improve ½ minute per km in the next few months or to come up to the Advanced class). But be reasonable. If you aim too high at the start you will get too tired before you reach your goal.
- If you alternate types of training it will be easier. Change your training pace, train with your friends, set test courses, combine condition and technique training.
- Think about your training. You compete in the forest. Therefore you must also do some of your training in the forest, among palmetto and scrub, in marshes and along sandy trails. And lots of O-technique.



Methods of Training	Interval	Sprint	Distance Endurance
To improve	heart and lungs	muscle strength	heart and lungs
Work Period	2 - 15 minutes	10 - 20 seconds	30-60-120 minutes
Rest Period	2 - 5 minutes	45 - 60 seconds	up to a minute
Repetitions	3 – 10	5 – 15	
Speed	high	full	high
Can be Trained	running, circuit training	running up hill, grandstands	running, cycling

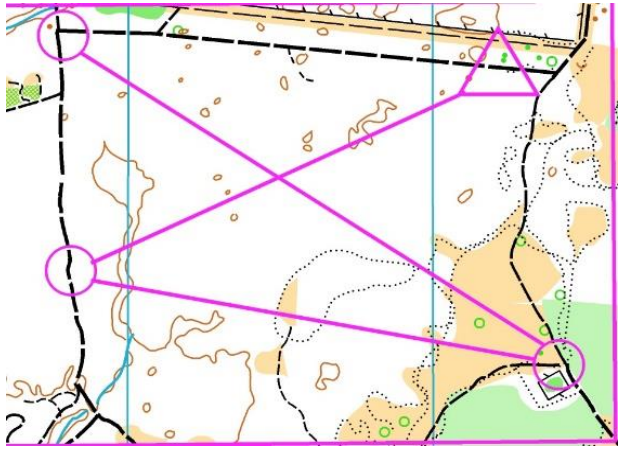
SUNCOAST ORIENTEERING

THE ORIENTEER'S REMINDER

Training Orienteering Techniques

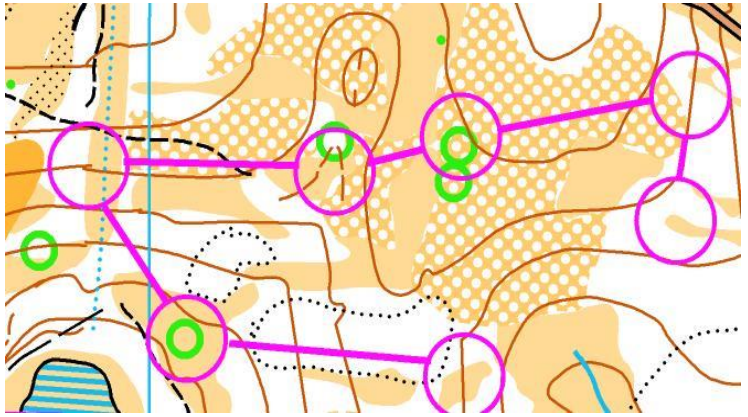
1 Rough Compass

Set a course on the map with each leg 500 to 1000 m long ending up at a catching feature. Run fast and practice looking at the compass while running. Pace count. Check by measuring when you get to the feature. Memorize and check significant features in the terrain. This exercise can be combined with interval training.



2 Precision Compass

Set a course on a map in a region with few details, 100 – 500 m between control points. Choose small points such as knolls, trees, root stocks, etc that you will recognize at once. First measure the leg. Slow down or stop when you are looking at the compass. Pace Count.

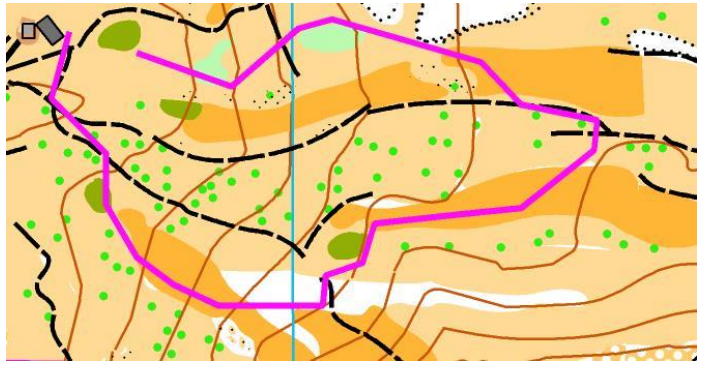


SUNCOAST ORIENTEERING

THE ORIENTEER'S REMINDER

3 Precision Map-reading

Preferably in unknown terrain with a good map. Set a difficult course. Draw on the map a difficult but realistic route choice. Then follow the line. Keep the map oriented, map read by thumb, check and then move. If it is very difficult you may have to walk.



4 Rough Map-reading

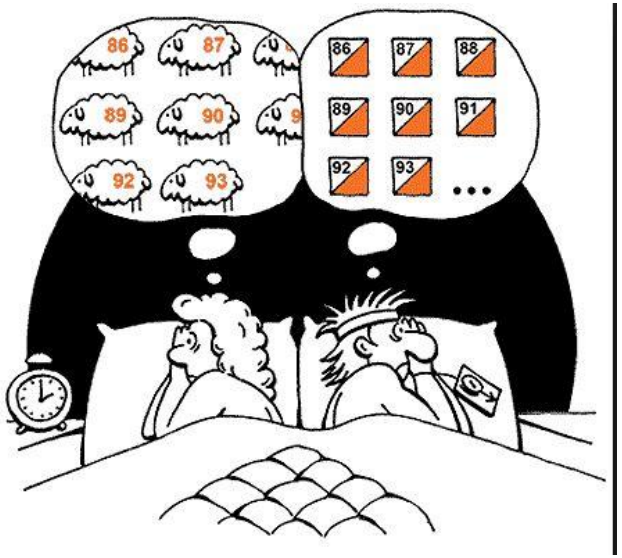
Take your map on a long run (distance training). Run quickly along paths, edges of marshes, fields, etc which you can follow on the map without slowing down. Keep your thumb moving to where you are on the map.

How much do you have to train?

The more you train the better you'll be. Only you can decide how much success is worth to you. Now you know how to train. Train all the techniques concentrating on your weaknesses. Good Luck.

SUNCOAST ORIENTEERING

THE ORIENTEER'S REMINDER



II COMPETITION

Orienteering is a sport with great demands upon its participants. One important demand is knowledge of how to prepare for, execute and follow up a competition. This knowledge you usually get through years of competition. Here are some tips from experienced champion orienteers.

Plan! What is your aim for the season? Important competitions?

Enter in time. It usually costs less.

Imagine that you are dressing for the competition when packing your bag for the trip. This was you forget nothing. Shoes? Socks? Gaiters? Orienteering pants and shirt? Compass? Finger Stick? Control description holder? Whistle?

Be ready in time for departure. It's not forbidden to be 5 minutes early.

At the event check your start time and how far it is to the start. Decide when to leave for the start. Relax until then.

Warm up on the way to or before your start. Check the map and clue sheet if they are posted. Any new symbols?

Think out how you will run the race. Tell yourself to run alone and to run straight.

THE START

Hurry slowly! If you start out being careless you will probably continue the same way.

Fasten your map, clue sheet and control card (if being used) in the same way every time. Then map reading and punching will be faster. Be careful that a staple can affect your compass.

Don't lose your head if someone passes you. Run your own race. A 'tagger' (someone who just follows) gets a bad reputation and learns nothing. Besides it's against the rule to tag on.

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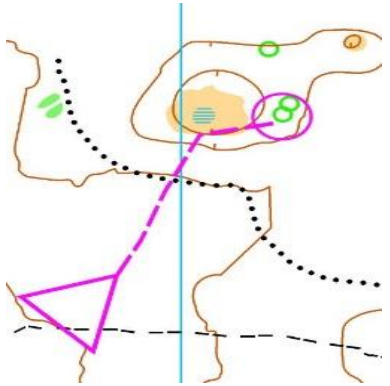
CHOOSE THE RIGHT ORIENTEERING TECHNIQUE

Use the traffic light example. The technique must be matched with the difficulty. If the orienteering is easy you must run hard and roughly= Rough orienteering (green light)
If difficult you have to run slowly and carefully = Precision orienteering (amber and red light)

1 You intend to run roughly to the attack point, the meadow. Take your bearing as usual; look at the compass while running. Pace count. Measure afterwards if necessary. Memorize and check significant features in the terrain. Choose your route where the terrain is most easily crossed. Stay on your approximate route and run quickly. Slow down and use precision compass and pace counting from the attack point to the control.



2 Rough map-reading: Keep your map oriented and read it while running. Use your thumb on the map. Run by needle rather than a precise bearing.

3 The only way to take these controls is to run by precision compass and pace count. Measure the legs in advance. Slow down or stop when you look at the compass. Make adjustments to your pace counting for moving in rougher terrain.

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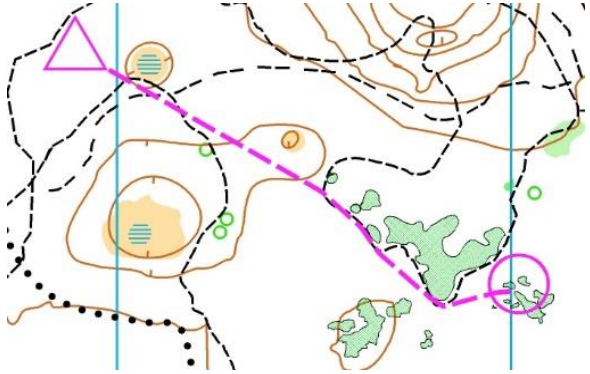
4 A small point among many. Compass, pace count and map reading. You must know exactly where you are at all times. Check attentively in all directions as approaching the control.

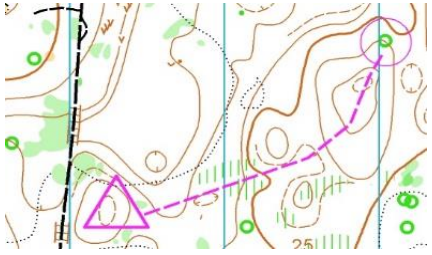


CONTROL SIMPLIFICATION

5 Many controls can be simplified by aiming to a larger target nearby. Run along the top of the large hill and aim toward the control point as you start to descend.

6 Prolong the control to the right by means of the long hill.

7 The control point is small but it is situated on a large hill. Take the hill first.



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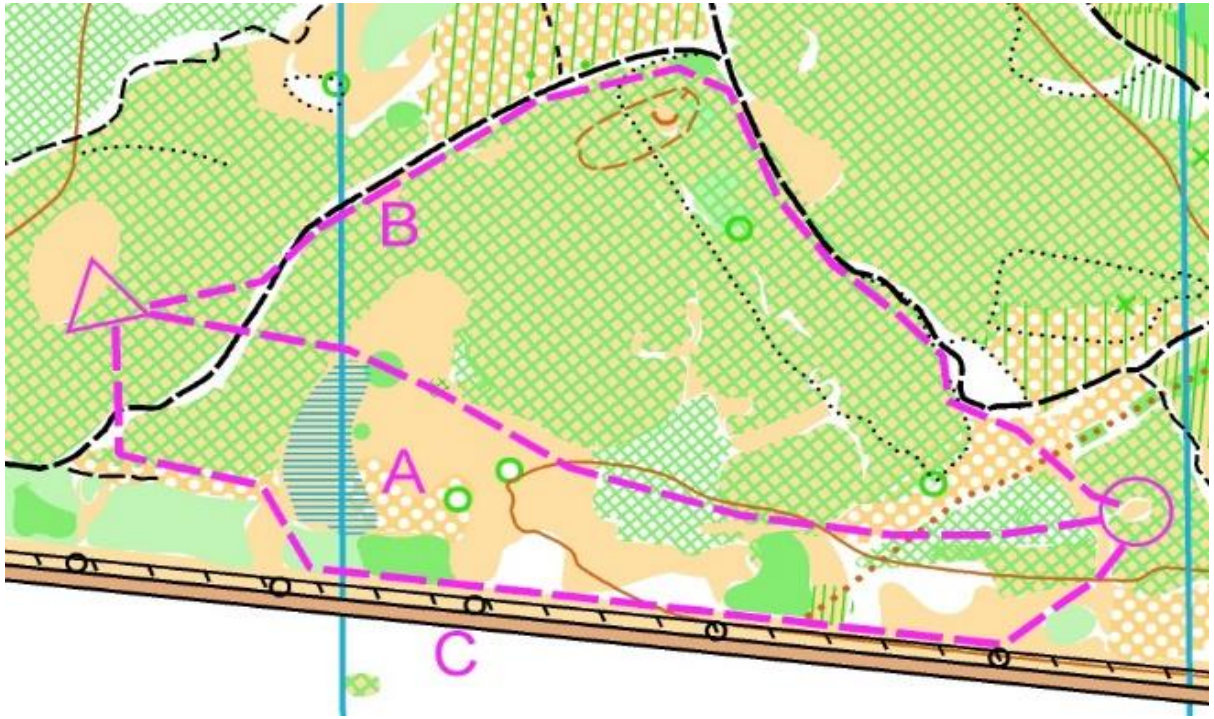
ROUTE CHOICE

Take your time when choosing your route. Then you will avoid unnecessary steps and large errors. Check 'straight on' first. Difficult orienteering? Bad attack point? Difficult terrain? Then check routes to the sides. Estimate the difficulty and choose your technique. Keep in mind Direction Distance Landmarks Attack Point.



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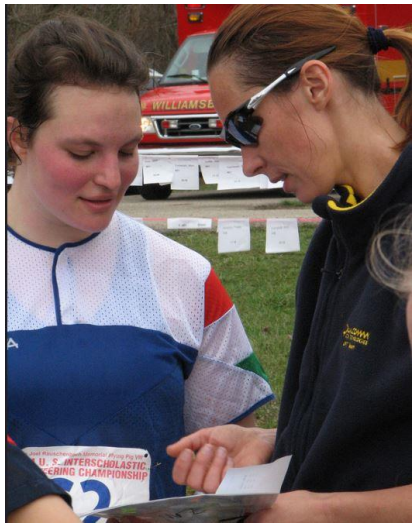
AT THE FINISH

After a warm down and when you get your map back find others who have run the same course. Compare routes, share your route and learn from others. This 'post-mortem' about technique and route choice is extremely important. Learn from others.



WORK AND ANALYSIS AFTERWARDS

Wash out your orienteering clothes.

Draw in your route on the map. Note where mistakes were made and why they were made. Put the map in a binder. Note date, winner and winner's time compared to your time. In this way you have a scrap book of memories, collected experiences to learn from and a reference for the next competition to be held in that area.

Use Splitsbrowser and Livelox to compare where you gained and lost time compared to others. See what route choices worked for others.