

Version 1 Updated 4/18/2024

## Introduction

Livelox is a web-based route analysis software for orienteering provided by the Norwegian company Livelox AS. Orienteering USA provides a national license for Livelox which makes the advanced features of this software available to all participants at events hosted by OUSA member clubs. This powerful software is an important tool for both beginner orienteers as well as advanced competitors.

For the orienteer just starting out, being able to record your route via an easy to use mobile app or with a GPS enabled smartwatch and uploading it to the Livelox software allows you to visualize your routes - display where you traveled on the map as you did your course. Identify exactly where you made mistakes and compare to other orienteers routes to see how they executed each leg of the course. The best way to get better at orienteering is to analyze your mistakes and the legs you did well on, and discover ways to minimize the navigation errors that inevitably creep in.

For the more advanced orienteer, using the deep feature set of Livelox enables you to compare your routes with competitors and fine tune your techniques as you progress through the sport. Livelox also provides the capability, where enabled, for organizers and coaches to utilize live tracking during events to ensure the safety of participants - particularly handy where large groups of novice orienteers are involved.

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## **Creating a LiveLox account**

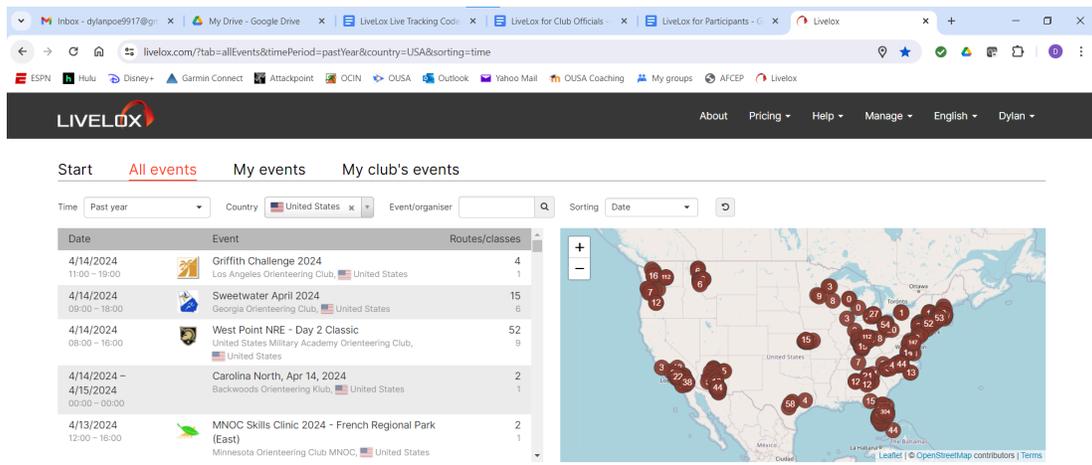
A LiveLox account is needed to add your routes, or to upload events. The first link is a LiveLox help page on how to create an account. The second link takes you to the page to create a new account, (if you don't already have one). Note: When creating a new account, it is best to use a webpage, either on mobile or a computer. Attempting to create an account within the LiveLox app creates errors and is unable to successfully create the account.

[LiveLox Help Link](#)

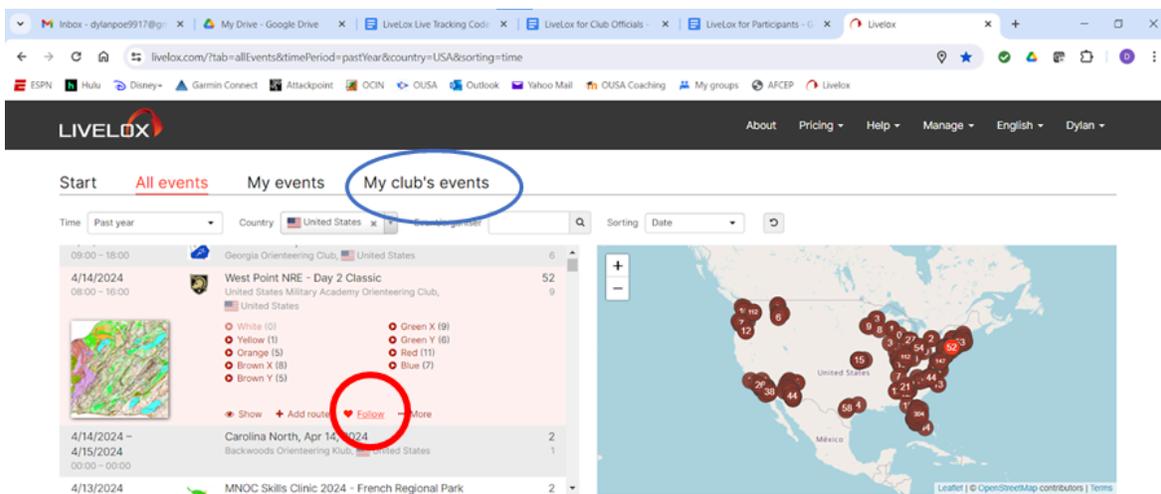
[Create an account](#)

## Finding your Club's Events

Livelox has events from all over the world uploaded every day. Participants can use the filtering tools to help find events they are interested in. "All Events" shows every event added to Livelox. This can be narrowed down by selecting when the event occurred, the country, organizing club, and by date.



Participants can "Follow" clubs on Livelox to make it easier to find their club's events. Click on an event from the club you want to follow, then click the "Follow" button, circled in red below. You cannot Follow a club you are an admin for.



All the events from clubs you either Follow or are an admin for will show up in the "My club's events" tab, circled in blue above.

## Uploading your route

Routes can be uploaded in a number of ways. The easiest is to just use the Livelox app on your phone. Simply open the app and click “Start”, put your phone in a secure pocket and run your course. When you finish, click “Stop Recording”. Finally, you may need to connect it to an event. That’s all that is needed to upload your route to LiveLox. Details on using the app and connecting to an event can be found later in this document.

If you use a GPS enabled smartwatch, you can link your Garmin Connect or Strava account, and your routes will automatically be uploaded to LiveLox. LiveLox also supports manual GPS file uploads, and manually drawing out a route. The link below goes to the LiveLox help page on how to upload routes.

[LiveLox Help Link](#)

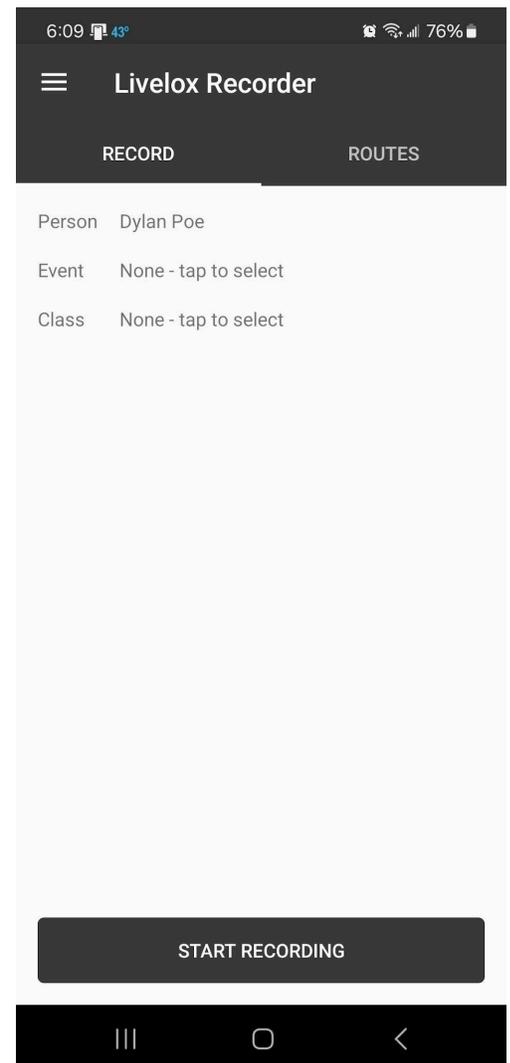
### *LiveLox App*

Using the LiveLox app can both record your route for LiveLox, and can be used for live tracking during an event that supports live tracking.

Find the LiveLox recorder app in the App Store or Google Play. Open the app and log into your LiveLox account.

Once logged in, this is the screen you will see on the right.

If you simply want to record your route, and are not worried about sharing to live tracking, just tap “START RECORDING.” When finished with your course, tap, “STOP RECORDING.” Then tap, “STOP” and “KEEP.” Once the event is available on LiveLox, you will then connect your route to the event. Once the event is added to LiveLox, go to your route in the app, then select “Class - None - tap to select” then, “Select class by event” then “Select Class.” Your event and class should show in the list.

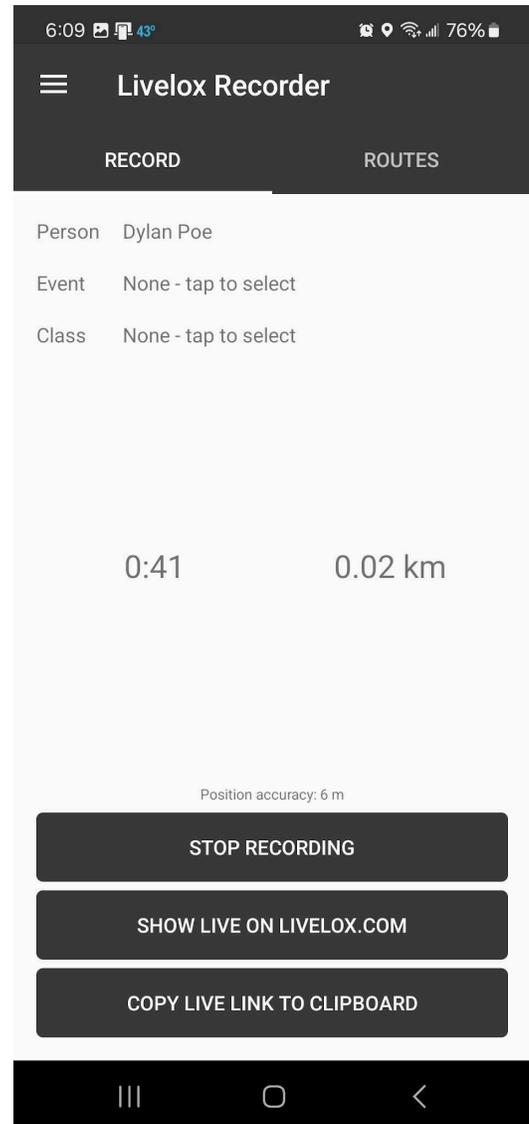


## Live Tracking

At this time, the LiveLox app is the only way to utilize live tracking with LiveLox. The recommended way is to use class codes. First, the event organizers will need to provide live



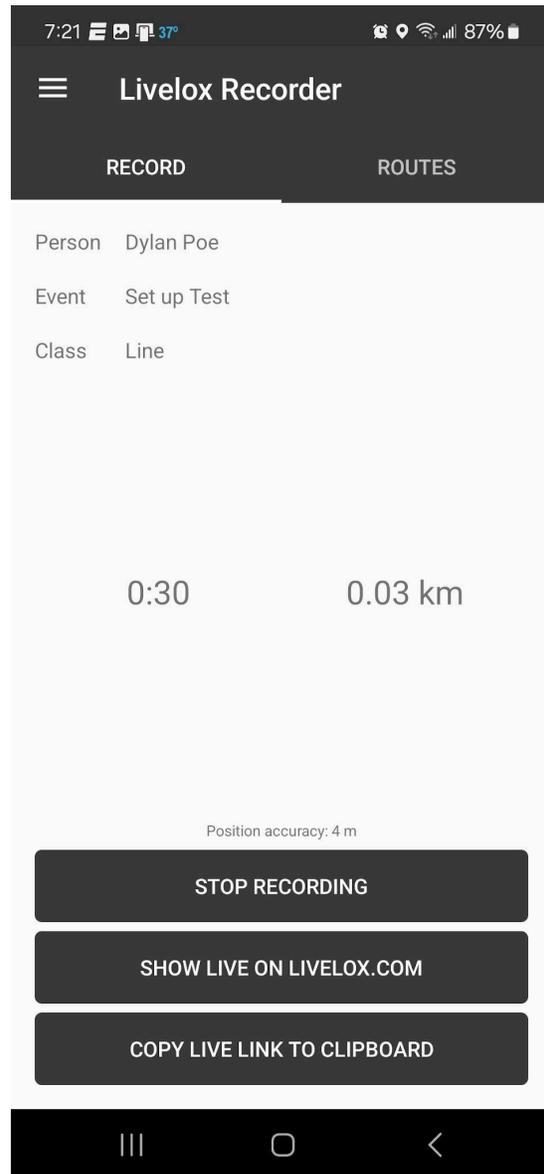
tracking codes unique for each event, and for each course, example shown below.



Once at the event, open the app, tap “None - tap to select.” Then, tap “Select class by six-character code” and enter the code of the course you plan to do, finally, click “OK” You should see the name of the event on the screen, then tap “START RECORDING” to both record your route and display your position on the live tracking.

If no codes were published, then using the “SHOW LIVE” or “COPY LIVE LINK” can be used to share and view your live route.

Stop the recording by following the same steps as above: tap, “STOP RECORDING.” Then tap, “STOP” and “KEEP.” Your route will be automatically uploaded.



## *Automatic Uploading*

If you track your orienteering events on Strava, Garmin Connect, Suunto, or Polar, you can link your Strava/Garmin Connect to LiveLox and your routes should be automatically uploaded to orienteering events that are added to LiveLox, if not, you will need to connect your route to the event. Connecting your route to an event is described below. Links below take you to the LiveLox page on how to link your Strava or Garmin accounts to LiveLox.

[Connect to Strava](#)

[Connect to Garmin](#)

## *File Uploading*

GPS files, like .gpx .tcx and .fit files can be uploaded to LiveLox.

LiveLox does not seem to accept .fit files from Apple devices. This can be worked around by uploading the .fit file to Strava, and exporting a .gpx file before adding it to LiveLox. Or better yet, set up automatic uploading from Strava to make less work for yourself!

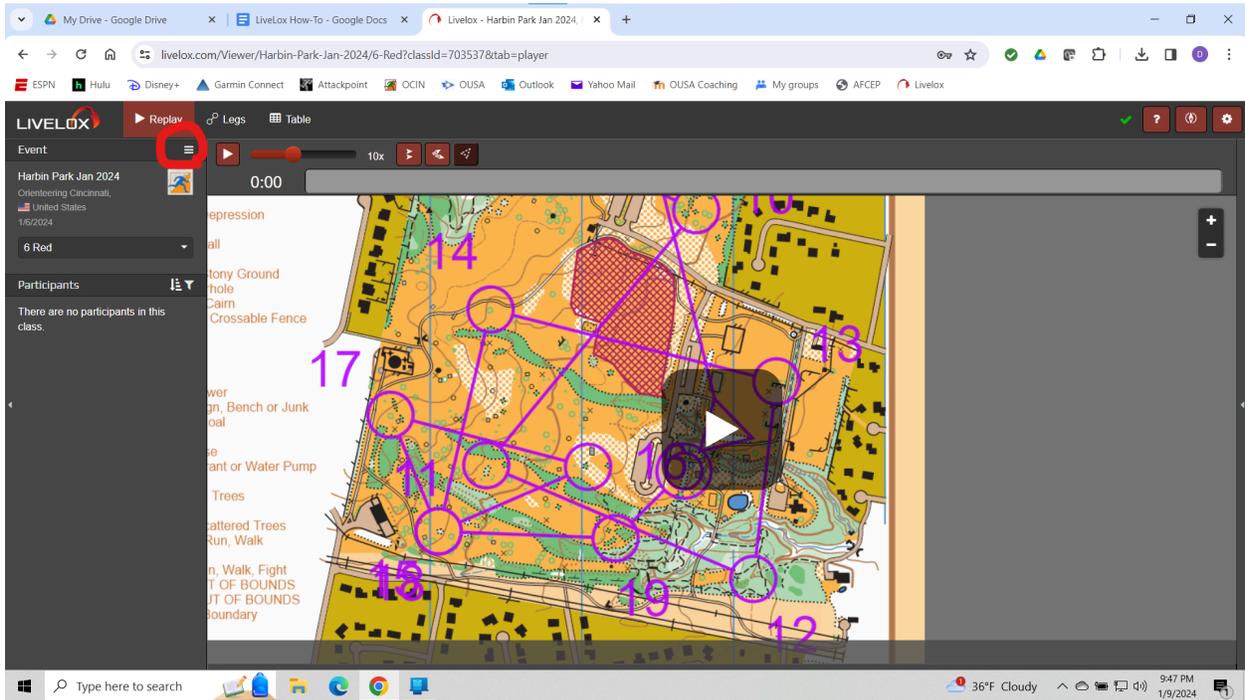
[Upload File](#)

## *Drawing Routes by Hand*

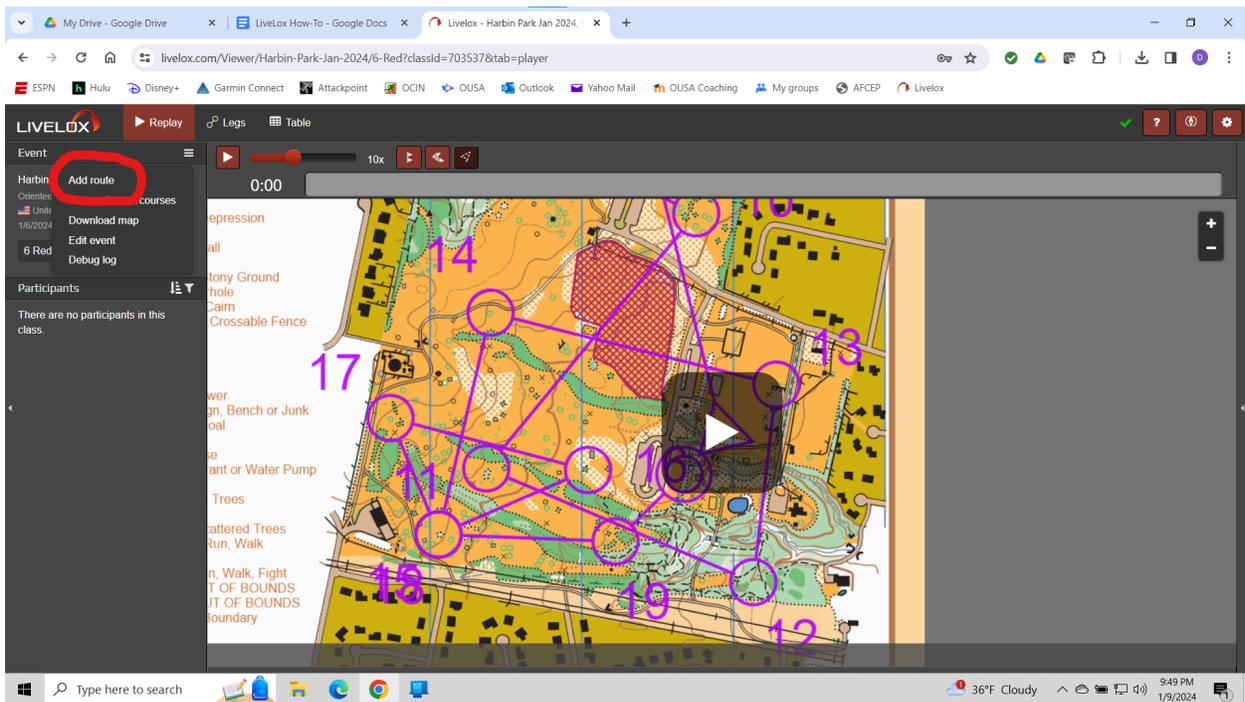
Manually drawing routes is also an option. For this option, the event organizers will need to add the results file to the event.

First, navigate to the event you want to draw your route for, and choose your course/class. Then, select the 3 bars, circled in red below.

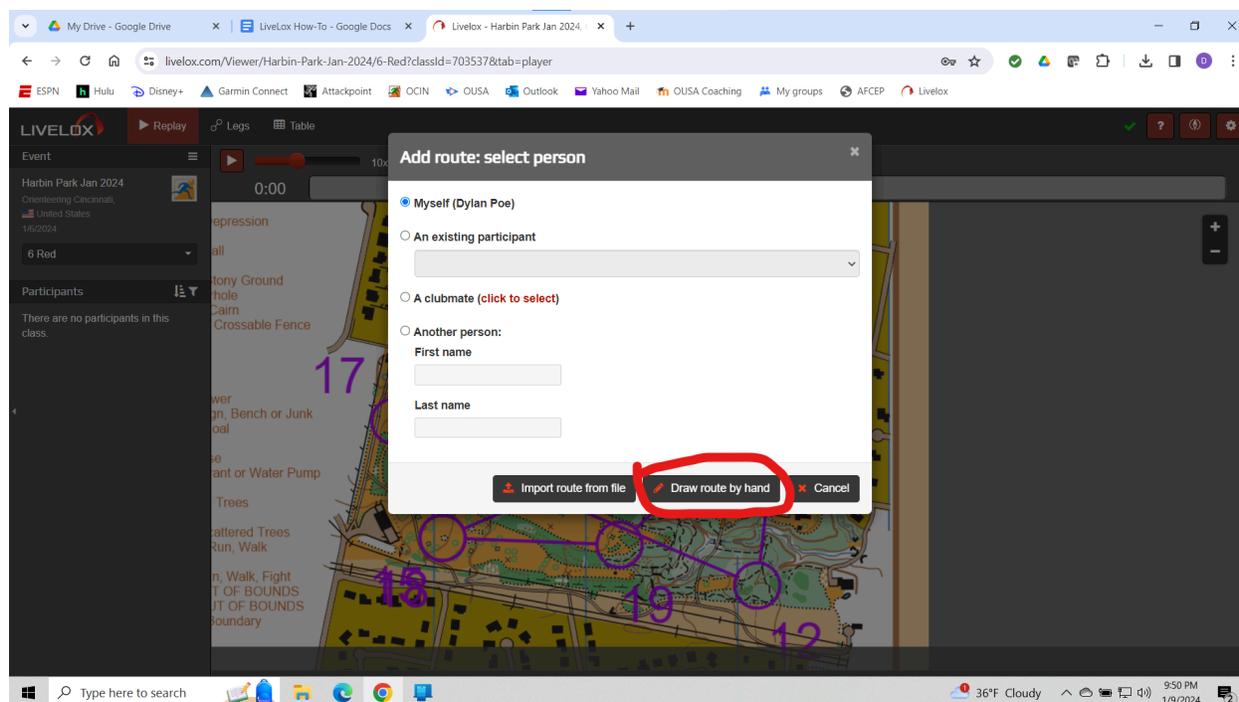
# Livelox for Participants



Then click "Add Route"



Then, select “Draw route by hand”



## Linking your route to an event

If you go to an event that you participated in and recorded and uploaded a route, but cannot find it in the event, you may need to connect it. Fortunately it's easy to do that...

Log into your Livelox account and click on My events, then click the ellipses on the far right of the event record that you're interested in, and click on Edit route in the drop-down menu.

Start All events My events My club's events

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The routes that you have uploaded using the Livelox mobile app or a GPS watch.

Time	Name
12/10/2023 10:50 – 12/11/2023 23:11	[Redacted] North Canton, OH 44720, USA
11/11/2023 17:30 – 18:51	2023 Night-O at Allardale, Score
9/27/2023 11:34 – 15:04	Ohio, USA
9/8/2023 09:43 – 19:48	North Canton, OH, USA
8/13/2023 13:37 – 14:59	2023 NEOOC Free Fun-O, Fun
8/2/2023 11:32 – 12:58	Peninsula, OH 44264, USA
7/7/2023 12:10 – 18:05	Ohio, USA
6/25/2023 11:13 – 12:05	2023 Cuyahoga Falls CityQuest, Family

Scroll to the bottom of the page. First thing to check is to make sure that Privacy is set to Public. If it's set to Private, then Livelox will not be able to display it and you won't be able to connect it to an event.

Replace route with new file

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**Connect with event: Not connected**

There are events that overlap the route's time and location. You may connect the route to a class in one of these events.

Don't connect the route to any event

Connect the route to an event

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**Privacy: Public** Click to change

Save Delete Cancel

Click on Connect the route to an event, and select the correct event and class from the drop-down lists.

**Connect with event: 2023 Night-O at Allardale, Score**

There are events that overlap the route's time and location. You may connect the route to a class in one of these events.

Don't connect the route to any event

Connect the route to an event

**Event** What should I do if I can't find the intended activity in the list?

2023 Night-O at Allardale

**Class**

Score

Click "Save" at the bottom.

## Linking your route to a result

When looking at the splits table in Livelox, you may have occasion to see two sets of splits for your run being displayed. Often this is because the event admins have uploaded the official SI punch results and you may have registered in the event under a different name than is on your Livelox account. In the view below Michael (the route in Livelox) registered under the team name Sharknado in the event. These splits are for the same route, but couldn't be matched by Livelox because of the name difference.



Pl	Name Club	Time	Time behind	1 380 m	2 193 m	3 323 m	4 558 m	5 213 m	6 239 m	7 254 m
1	Sharknado NEOC	1:09:47	-0:09	2:04 (2)	1:47 (1)	3:15 (3)	3:53 (2)	2:51 (2)	3:17 (2)	3:02 (1)
2	Michael	1:09:56	+0:09	1:59 (1)	1:48 (2)	3:19 (4)	3:41 (1)	3:11 (3)	3:08 (1)	3:17 (2)
3	You Shall Not Compare	1:24:58	+15:11	2:30 (8)	2:02 (5)	3:03 (7)	4:13 (3)	3:50 (4)	4:17 (8)	3:40 (4)

The small table icon under the 2 in Michael's record indicates that these are the split times that Livelox calculated based on GPS proximity to the controls, while the check mark under the 1 in Sharknado indicates that these are from the actual punch times that make up the official splits for the event. It is possible for you to connect your route to these results so that the route that is displayed in replay and the splits results in the table are the same. To do this, it is very easy...

Log into your Livelox account and click on "My events," then click the ellipses on the far right of the event record that you're interested in, and click on "Edit route" in the drop-down menu.

# Livelox for Participants



Start All events My events My club's events

The routes that you have uploaded using the Livelox mobile app or a GPS watch.

Time	Name
12/10/2023 10:50 – 12/11/2023 23:11	[Redacted] North Canton, OH 44720, USA
11/11/2023 17:30 – 18:51	⇒ 2023 Night-O at Allardale, Score
9/27/2023 11:34 – 15:04	Ohio, USA
9/8/2023 09:43 – 19:48	North Canton, OH, USA
8/13/2023 13:37 – 14:59	⇒ 2023 NEOOC Free Fun-O, Fun
8/2/2023 11:32 – 12:58	Peninsula, OH 44264, USA
7/7/2023 12:10 – 18:05	Ohio, USA
6/25/2023 11:13 – 12:05	⇒ 2023 Cuyahoga Falls CityQuest, Family

Scroll to the bottom of the page. The event/class connections will be shown. Right below that will be the Connect with result: no connection area, indicating that currently the route is not connected to any result for the event.

**Connect with result: no connection**

When connecting your route with your result in the selected class, the split times from the electronic punching system will be used instead of split times estimated from the route's closest passing of each control. Connecting a route with a result allows for a more accurate analysis.

My route should not be connected with any result

Privacy: Public Click to change

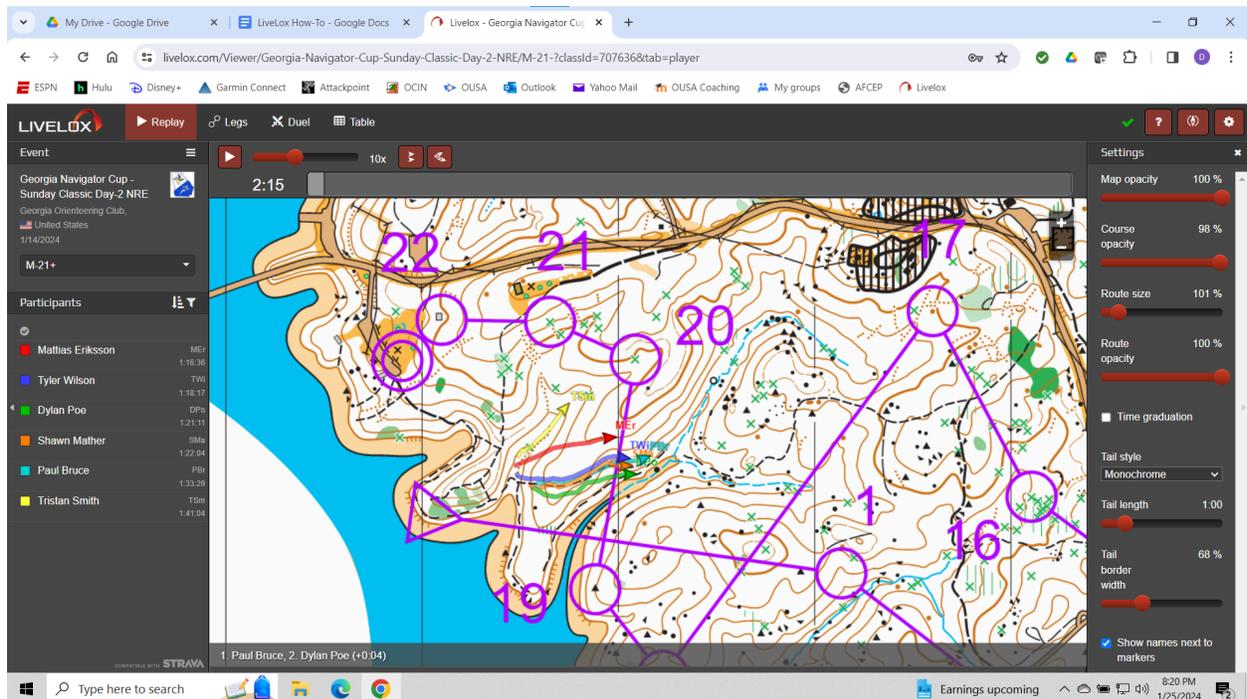
Save Delete Cancel

Simply open the drop down and select the official event results that are yours and belong to this route. Click "Save" and you are done.

## Analysis Tools

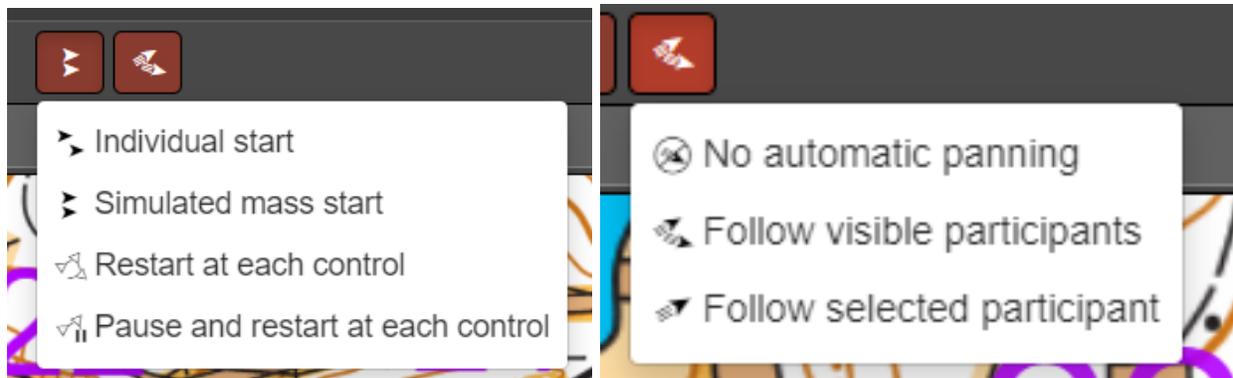
### Route Replay

When clicking on a class in a LiveLox event, it will automatically go to the replay page.

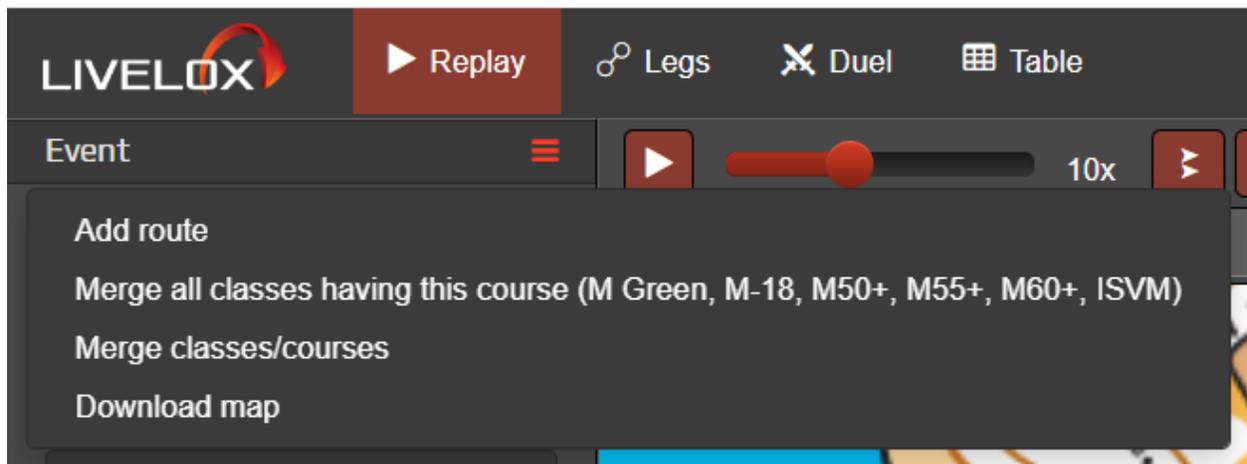


You can choose which routes are replayed on the left panel. Clicking on the box next to the name will toggle that route off or on. The settings panel is opened by clicking on the gear button on the bottom right. The settings will allow you to change how the route appears. The replay controls are along the top of the screen. The red slider adjusts how fast the replay occurs, and is next to the red play/pause button. The gray slider controls the race time, with zero being the beginning of the race.

The two buttons next to the speed control adjust the replay's start and following. The replay will adjust the screen automatically to follow all visible participants (all participants with the boxes selected). To "Follow selected participants" click on a name (not the box) of the orienteer you want the screen to follow. The start control allows you several options to see the replay.



Clicking the 3 lines next to "Event" will show more options for the replay.



First, this is where a participant would go to add their route if it isn't already uploaded.

Next, if there are multiple classes for a course, you can select this option to view all classes on that course. “Merge classes/courses” allows you to display multiple courses, and their participants, on one screen.

### Merge classes/courses

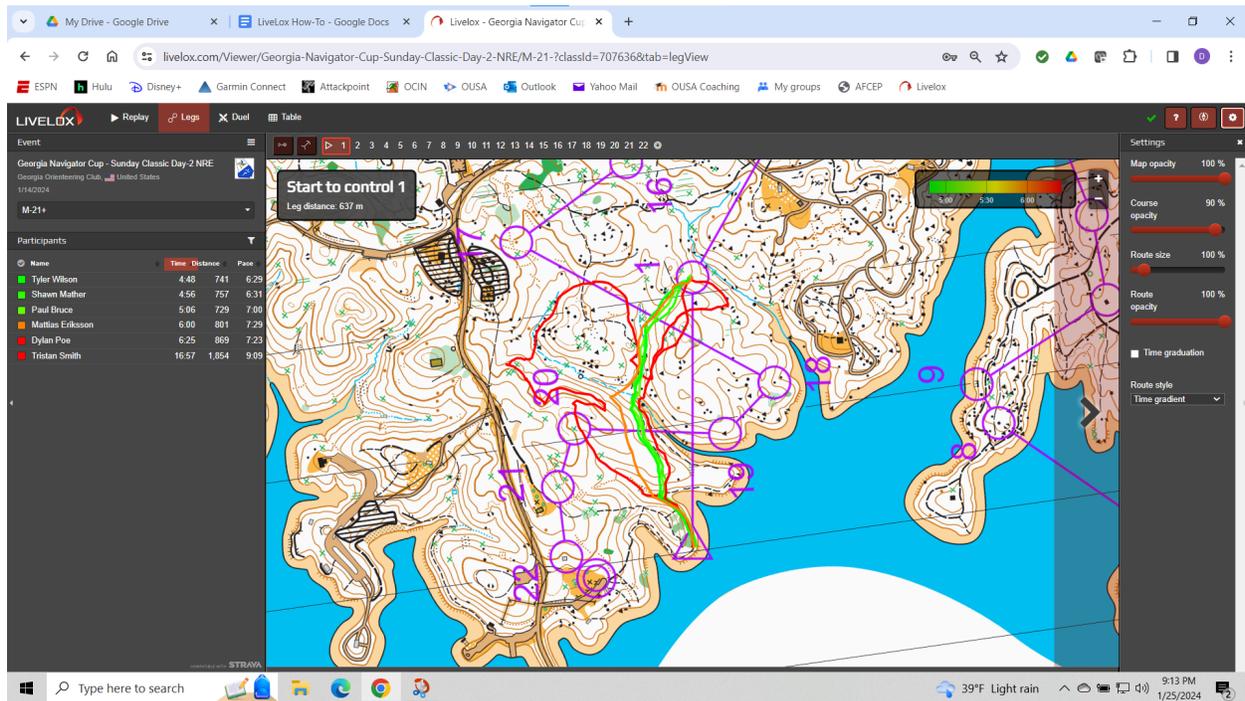
You can view participants from multiple classes in the same map image. If the classes have different courses, all courses will be shown. Make your selection either by class or by course.

Show courses  
 Show classes

Course	Classes having this course
<input type="checkbox"/> Brown X	M Brown, M65+ (1), M70+ (3), M75+ (1), F Brown, F55+, F60+ (1), F65+
<input type="checkbox"/> Brown Y	M80+, M85+, M90+, F70+ (1), F75+ (1), F80+, F85+, F90+
<input type="checkbox"/> Brown Z	ISVF, F-18
<input type="checkbox"/> Green X	M Green, M-18 (1), M50+, M55+, M60+ (2), ISVM
<input type="checkbox"/> Green Y	F Green, F-20, F35+, F40+, F45+, F50+
<input type="checkbox"/> Orange X	M Orange, M-16, ISJVM
<input type="checkbox"/> Orange Y	ISJVF, F Orange, F-16
<input type="checkbox"/> White	M/F White, M-12, M-10, Grp White, F-12, F-10
<input type="checkbox"/> Yellow	M Yellow, M-14, ISIF, ISIM, F Yellow, Grp Yellow, F-14
<input type="checkbox"/> Red F21	F-21+
<input type="checkbox"/> Blue	M-21+ (6)
<input type="checkbox"/> Red X	M Red, M-20, M35+, M40+, M45+

## Leg Analysis

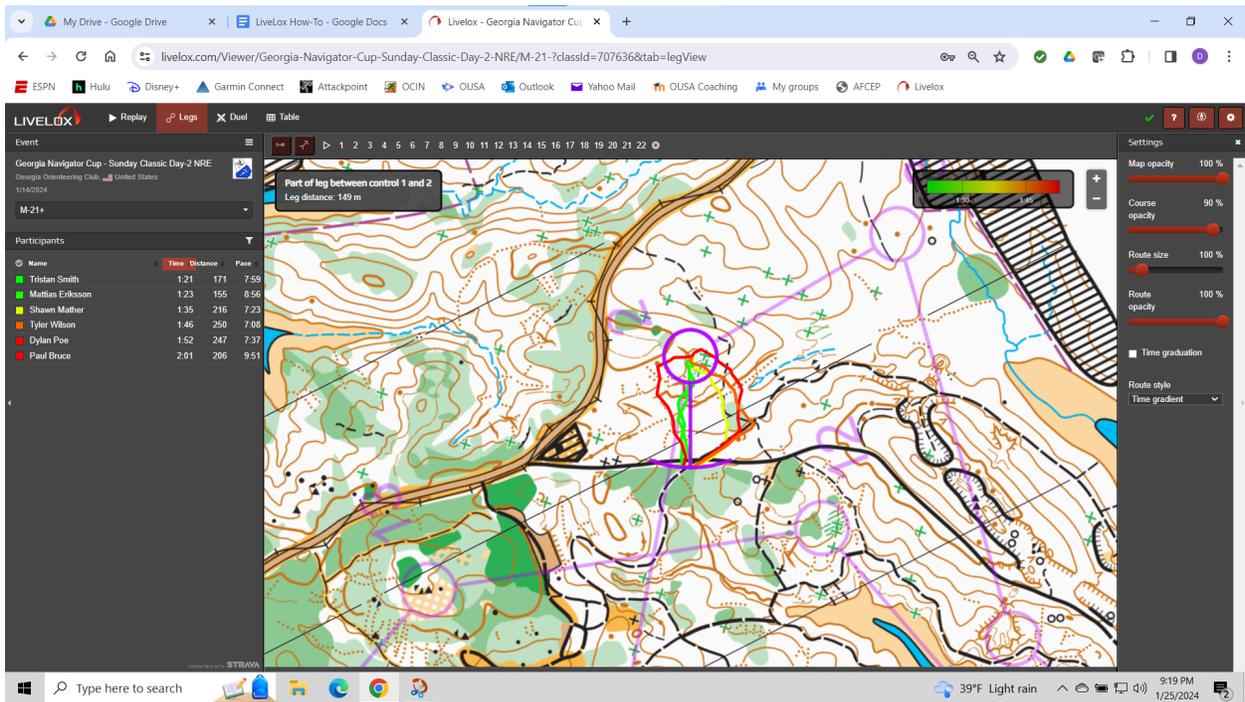
Clicking on the “Legs” tab on the top of the screen will display the leg analysis.



The left panel shows the participants. Click the box to turn a runner’s route on or off. This panel shows the time, distance traveled, and pace based on distance traveled. This panel is always organized by fastest runner on top of the list. Clicking on the right side of the map will advance to the next leg, and clicking on the left side of the map will return to the previous leg. The numbers at the top of the screen indicate the controls in this course. Click on one to go directly to that leg. As before, clicking the gear will show the route settings on the right panel.

If you hold “Control” (for Windows) or “Command” (for Mac), then click and drag with your mouse, you can create your own segment of a leg.

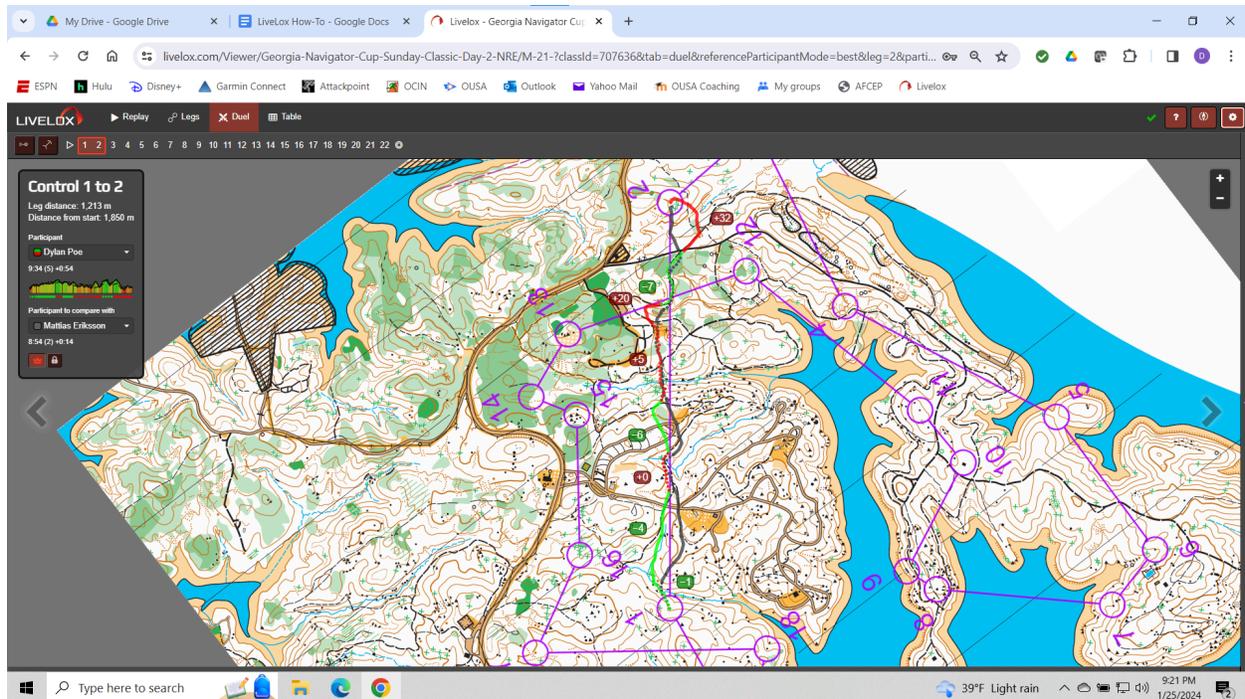
# LiveloX for Participants



Here, I created a segment from the road/trail junction to the control. LiveLox then cuts the leg down to your segment, and displays updated data.

## Duel Analysis

Clicking on “Duel” will start an analysis between two runners. The duel analysis is a detailed breakdown of a single leg. LiveLox will automatically break down the leg into segments, and detail the time difference between the two runners.



The top participant is the focus of the analysis, and all time gain/loss is in reference to this runner. This runner’s route is green and red. The bottom participant is who you want to compare against, and their route will appear in gray. LiveLox will automatically change the bottom participant to whoever is fastest on that leg. Clicking the “Lock” button on the bottom of the left panel will lock the bottom participant to whoever you choose. All other controls are the same as the “Leg Analysis.”

# Livelox for Participants



## Table Analysis

The table analysis shows some statistics about the course. By default, it will show split and overall times for the participants, as we are used to from Attackpoint, WinSplits, etc. Clicking on the “Times” button will give options to view data on actual route lengths, pace based on actual route length, pace based on straight line, and comparison of actual route length to straight line.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20			
Route lengths	637 m	1,213 m	341 m	597 m	713 m	494 m	209 m	526 m	105 m	366 m	203 m	665 m	565 m	217 m	146 m	419 m	321 m	692 m	168 m	356 m		
Route pace	8.00 (4)	8.94 (2)	2.20 (2)	5.44 (2)	5.29 (2)	3.97 (2)	1.34 (3)	8.97 (2)	0.99 (4)	2.38 (4)	1.25 (1)	4.94 (2)	9.00 (2)	2.00 (1)	1.99 (2)	2.53 (1)	2.14 (1)	4.41 (2)	1.18 (5)	3.19 (3)		
Pace between controls	4.46 (1)	8.40 (1)	2.16 (1)	7.16 (5)	5.91 (5)	3.23 (1)	1.18 (1)	8.48 (1)	0.34 (1)	2.54 (5)	1.35 (5)	6.05 (6)	5.31 (3)	2.42 (6)	1.39 (1)	3.22 (3)	2.22 (3)	4.38 (1)	1.10 (1)	2.50 (1)		
Route length compared to straight line	6.25 (5)	9.34 (5)	4.50 (6)	6.27 (4)	5.23 (1)	3.38 (3)	1.27 (2)	7.05 (3)	0.48 (2)	2.35 (3)	1.30 (3)	4.46 (1)	4.34 (1)	2.19 (3)	1.40 (3)	3.29 (5)	2.15 (2)	5.28 (4)	1.14 (2)	3.11 (2)		
4 Shawn Mather	1:22:04	+5:28	4.56 (2)	9.05 (3)	2.29 (3)	6.10 (3)	7.27 (6)	3.41 (4)	1.39 (5)	7.56 (6)	1.31 (6)	2.24 (1)	1.25 (1)	5.13 (3)	5.50 (5)	2.18 (2)	1.49 (4)	3.05 (2)	2.41 (6)	4.50 (3)	1.15 (3)	3.41 (5)
5 Paul Bruce	1:33:29	+16:53	4.56 (2)	14.01 (2)	16.30 (2)	22.40 (1)	30.07 (3)	33.48 (3)	35.27 (3)	43.23 (3)	44.54 (3)	47.18 (3)	48.43 (3)	53.56 (3)	59.48 (4)	1:02.04 (4)	1:03.53 (4)	1:06.98 (4)	1:09.39 (4)	1:14.29 (4)	1:15.44 (4)	1:19.25 (4)
6 Tristan Smith	1:41:04	+24:28	5.06 (3)	9.32 (4)	2.34 (4)	8.49 (6)	5.45 (3)	4.02 (6)	1.47 (6)	7.34 (4)	0.54 (3)	2.34 (2)	1.34 (4)	5.29 (4)	6.38 (4)	3.14 (6)	2.03 (5)	3.22 (3)	6.95 (6)	8.52 (6)	1.17 (4)	3.37 (4)
			5.06 (3)	14.30 (3)	17.12 (3)	28.91 (4)	31.40 (4)	35.48 (4)	37.25 (4)	42.00 (5)	46.03 (5)	48.37 (5)	50.11 (5)	55.40 (5)	1:01.10 (5)	1:04.32 (5)	1:06.35 (5)	1:09.57 (5)	1:15.53 (5)	1:25.45 (5)	1:27.02 (5)	1:30.39 (5)
			16.57 (6)	10.19 (6)	2.40 (5)	5.05 (1)	5.45 (3)	3.43 (5)	1.36 (4)	7.52 (5)	1.20 (5)	3.22 (6)	1.56 (6)	6.03 (5)	5.58 (6)	2.44 (5)	2.11 (6)	4.21 (6)	2.47 (5)	7.35 (5)	1.51 (6)	3.52 (6)
			16.97 (6)	27.16 (6)	29.56 (6)	35.64 (6)	40.49 (6)	44.32 (6)	46.08 (6)	54.00 (6)	55.20 (6)	58.42 (6)	1:00.38 (6)	1:06.41 (6)	1:12.39 (6)	1:15.23 (6)	1:17.34 (6)	1:21.55 (6)	1:24.42 (6)	1:32.17 (6)	1:34.08 (6)	1:38.00 (6)