

## TOUGH MUDDER X SEMI-FINALS

Episode 2 of the 2018 Tough Mudder X Championship aired on CBS this past Saturday. Much of episode 1 featured athlete background stories and not a lot of action besides slow-mo recaps. However, episode 2 contained much more uninterrupted race footage that allowed viewers to see how the race truly unfolded.

Most professional sports display quick stats (like touchdowns, homeruns, points/game, etc.) for the audience, and that's essentially what Tough Mudder did for the semi-finals. Finishing times for both heats were shown, along with the names of those who advanced to the finals. CBS did show split times for top athletes in a couple zones, but that doesn't tell the whole story about the race.

That's where Yancy Camp staffer Jack Bauer comes in. Just like he did in round 1, Jack provides a detailed breakdown of how often there were lead changes, who struggled/dominated certain zones, etc. during the semi-finals. Data from the TMX Championship that gives readers a deeper understanding about what happened in round 2 includes:

- Lead and position changes throughout the race
- Fastest splits for each zone
- Timing mat splits
- Comparison of CrossFit vs. OCR
- Round 2 vs. round 1 comparison

Just like round 1, this data was delayed a few days to avoid spoiling any of the results for TV viewers. Let's take a look at how the qualifying rounds went down.

*\*Make sure you tune in July 28 on CBS to watch the amazing finals action.*

## Course Map

Here is a quick review of the timing mat locations that will be referenced repeatedly:

- Zone 1, 400m – after climbing down from Balls to the Wall (#5)
- Zone 2, 800m – just before climbing up Kong Infinity (#11)
- Zone 3, 1100m – just before #14 on the long running stretch
- Zone 4, 1200m – after Leap of Faith (#15) just before starting the sandbag cleans (#16)
- Zone 5, 1400m – just before Rope-A-Dope (#20)
- Zone 6, Finish line



## Position Changes

Here are the official results for the 2 semi-final heats, in order of finishing time. Only the top-10 fastest moved on to the finals for their third race of the day. Take a quick look at this then move on, as I'll break down the data into way more detail in the next few sections.

Note: the thicker black line represents the cut-off mark in the qualifying rounds, as only the top-20 advanced to the semifinals. You'll also see a lot of color-coded columns:

- Blue = fast
- White = average
- Red = slow
- Darker color = very fast/slow

Rank	Bib	Last	First	Cat.	Wave	400m (After BTW)		800m (Before Kong)			1100m (Last Bale Bonds)			1200m (After Leap of Faith)			1400m (Before Rope Climb)			1600m (Finish Line)												
						Timing Mat		Timing Mat		Split	Timing Mat		Split	Timing Mat		Split	Timing Mat		Split	Timing Mat		Split										
						Time	Position	Time	Position	Change	Time	Rank	Time	Position	Change	Time	Rank	Time	Position	Change	Time	Rank	Time	Position	Change	Time	Rank					
1	211	Prevost	Carolyne	F	1	03:32.8	2	07:22.4	2	0	03:49.56	8	10:48.3	2	0	03:25.59	3	12:35.1	2	0	01:46.58	5	14:59.6	1	▲ 1	02:24.5	1	16:41.8	1	0	01:42.2	13
2	221	Chapman	Emma	F	2	03:23.1	1	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	222	Coffin	Corinna	F	2	03:42.7	3	07:19.8	1	▲ 2	03:37.1	3	10:31.1	1	0	03:11.53	1	11:56.1	1	0	01:25.0	1	15:48.3	3	▲ -2	03:52.2	11	17:15.3	3	0	01:27.0	3
4	223	Wagner	Candice	F	2	03:55.7	7	07:40.1	4	▲ 3	03:44.54	5	10:54.7	3	▲ 1	03:14.6	2	12:38.1	3	0	01:43.54	3	15:55.4	4	▲ -1	03:17.3	7	17:16.0	4	0	01:20.56	1
5	230	Weeks	Lauren	F	2	03:54.1	5	07:28.8	3	▲ 2	03:34.7	2	11:03.7	4	▼ -1	03:34.59	6	13:00.7	4	0	01:57.0	11	15:57.5	5	▲ -1	02:56.58	3	17:24.4	5	0	01:26.59	2
6	212	Lance	Cassidy	F	1	03:44.4	4	07:42.4	5	▲ -1	03:58.0	9	11:12.0	5	0	03:29.56	4	13:01.2	5	0	01:49.2	6	16:00.9	6	▲ -1	02:59.7	4	17:32.2	6	0	01:31.53	6
7	213	Abbott	Emily	F	1	03:57.1	8	08:06.3	8	0	04:09.2	14	11:52.6	10	▼ -2	03:46.3	10	13:37.3	8	▲ 2	01:44.57	4	16:15.1	7	▲ 1	02:37.58	2	17:56.3	7	0	01:41.2	12
8	215	Fortunato	Talayna	F	1	04:28.0	17	08:13.2	11	▲ 6	03:45.2	6	11:49.9	8	▲ 3	03:36.7	7	13:43.8	9	▲ -1	01:53.59	9	16:43.3	8	▲ 1	02:59.55	5	18:19.9	8	0	01:36.6	9
9	219	Dekrey	Kimberlee	F	1	04:07.1	11	08:10.5	9	▲ 2	04:03.4	11	12:01.3	11	▼ -2	03:50.58	13	13:54.3	10	▲ 1	01:53.0	8	17:10.7	9	▲ 1	03:16.4	6	18:40.6	9	0	01:29.59	5
10	224	Watton	Cassidy	F	2	04:03.9	9	07:50.9	7	▲ 2	03:47.0	7	11:24.8	6	▲ 1	03:33.59	5	13:07.2	6	0	01:42.54	2	17:12.4	10	▼ -4	04:05.2	15	18:44.2	10	0	01:31.58	7
11	227	Panchik	Christin	F	2	04:04.3	10	07:44.1	6	▲ 4	03:39.58	4	11:29.6	4	▼ -1	03:45.5	9	13:23.9	7	0	01:54.3	10	17:25.2	11	▼ -4	04:01.53	14	18:52.3	11	0	01:27.1	4
12	216	Kinney	Michelle	F	1	04:17.5	16	08:23.5	16	0	04:06.0	12	12:11.9	13	▲ 3	03:48.4	12	14:23.7	11	▲ 2	02:11.58	12	17:48.9	12	▲ -1	03:25.2	8	19:20.1	12	---	---	---
13	226	Dancer	Jenn	F	2	04:11.7	12	08:20.2	13	▲ -1	04:08.55	13	12:08.1	12	▲ 1	03:47.59	11	14:29.4	12	0	02:21.3	13	18:00.4	13	▲ -1	03:31.0	9	19:50.7	13	0	01:50.3	14
14	217	Adams	Haley	F	1	04:12.9	15	08:22.2	14	▲ 1	04:09.53	15	12:21.2	15	▼ -1	03:59.0	15	14:42.7	14	▲ 1	02:21.5	14	18:38.0	14	▲ 0	03:55.53	13	20:15.8	14	0	01:37.8	10
15	220	Sullivan	Kelly	F	1	04:33.8	18	08:35.0	17	▲ 1	04:01.52	10	12:40.3	16	▲ 1	04:05.3	16	14:30.0	13	▲ 3	01:49.57	7	18:57.6	15	▲ -2	04:27.6	16	20:37.5	15	0	01:39.59	11
16	218	Griffith	Jessica	F	1	04:11.8	14	08:22.3	15	▲ -1	04:10.55	16	12:18.0	14	▲ 1	03:55.57	14	16:03.1	16	▲ -2	03:45.1	17	19:44.4	17	▲ -1	03:41.3	10	21:41.5	16	▲ 1	01:57.1	15
17	228	Walsh	Orla	F	2	04:49.0	19	08:11.0	10	▲ 9	03:22.0	1	11:51.4	9	▲ 1	03:40.4	8	14:44.1	15	▼ -6	02:52.57	16	19:22.0	16	▲ -1	04:37.59	17	21:59.3	17	▼ -1	02:37.3	17
18	214	Martin	Camzin	F	1	04:11.7	12	08:51.6	18	▼ -6	04:39.59	19	13:29.7	17	▲ 1	04:38.1	17	17:54.5	17	0	04:24.58	18	21:49.6	18	▲ -1	03:55.1	12	00:04.2	18	0	02:14.56	16
19	229	Ohman	Cassandra	F	2	06:54.7	20	11:18.6	19	▲ 1	04:23.59	18	16:35.3	18	▲ 1	05:16.57	18	19:01.9	18	0	02:26.6	15	-	---	---	---	---	---	---	---	---	---
20	225	Marquez	Analisa	F	2	03:54.6	6	08:16.2	12	▼ -6	04:21.56	17	-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

## Position at End of Zone

This chart shows the relative placement of everyone at various checkpoints. Note: no splits were available for Emma Chapman (2nd finisher in round 2) for zones 2-5, as her timing chip did not have a reading, so most women were actually 1 position lower during most zones than listed in this table:

- 8/10 people who went through the first workout zone in the top-10 ended up making the finals, just like in round 1. Similar to the men, if you want to make the finals at TMX, you can't afford to start out slow and hope to play catch-up.
- All 10 ladies in position to make the finals before the sandbag zone ended up advancing to the finals.
- There were 2 DNFs in the semi-finals (10%), compared to 22 DNFs in the prelims (52%).

Rank	400m (After BTW)	Behind Lead	800m (Before Kong)	Behind Lead	1100m (Last Bale Bonds)	Behind Lead	1200m (After Leap of Faith)	Behind Lead	1400m (Before Rope Climb)	Behind Lead	1600m (Finish Line)	
1	Emma Chapman	03:32.08	Corinna Coffin	07:22.4	Corinna Coffin	10:48.3	Corinna Coffin	12:35.1	Carolyne Prevost	14:59.6	Carolyne Prevost	16:41.8
2	Carolyne Prevost	00:00.00	Carolyne Prevost	00:00.00	Carolyne Prevost	00:00.00	Carolyne Prevost	00:00.00	Emma Chapman	00:11.54	Emma Chapman	00:02.52
3	Corinna Coffin	00:09.59	Lauren Weeks	00:06.04	Candice Wagner	00:06.04	Candice Wagner	00:03.00	Corinna Coffin	00:48.57	Corinna Coffin	00:33.55
4	Cassidy Lance	00:11.56	Candice Wagner	00:17.57	Lauren Weeks	00:15.04	Lauren Weeks	00:25.06	Candice Wagner	00:55.58	Candice Wagner	00:34.52
5	Lauren Weeks	00:21.53	Cassidy Lance	00:20.00	Cassidy Lance	00:23.57	Cassidy Lance	00:26.01	Lauren Weeks	00:57.59	Lauren Weeks	00:42.56
6	Analisa Marquez	00:21.58	Christin Panchik	00:21.57	Cassidy Watton	00:36.05	Cassidy Watton	00:32.01	Cassidy Lance	01:01.3	Cassidy Lance	00:50.54
7	Candice Wagner	00:22.59	Cassidy Watton	00:28.05	Christin Panchik	00:41.03	Christin Panchik	00:48.08	Emily Abbott	01:15.55	Emily Abbott	01:14.55
8	Emily Abbott	00:24.53	Emily Abbott	00:43.59	Talayna Fortunato	01:01.06	Emily Abbott	01:02.02	Talayna Fortunato	01:43.57	Talayna Fortunato	01:38.1
9	Cassidy Watton	00:31.01	Kimberlee Dekrey	00:48.01	Orla Walsh	01:03.01	Talayna Fortunato	01:08.07	Kimberlee Dekrey	02:11.1	Kimberlee Dekrey	01:58.58
10	Christin Panchik	00:31.55	Orla Walsh	00:48.56	Emily Abbott	01:04.03	Kimberlee Dekrey	01:19.02	Cassidy Watton	02:12.58	Cassidy Watton	02:02.54
11	Kimberlee Dekrey	00:34.53	Talayna Fortunato	00:50.58	Kimberlee Dekrey	01:13.00	Michelle Kinney	01:48.06	Christin Panchik	02:25.56	Christin Panchik	02:10.55
12	Jenn Dancer	00:38.59	Analisa Marquez	00:53.58	Jenn Dancer	01:19.58	Jenn Dancer	01:54.03	Michelle Kinney	02:49.3	Michelle Kinney	02:38.53
13	Camzin Martin	00:38.59	Jenn Dancer	00:57.58	Michelle Kinney	01:23.06	Kelly Sullivan	01:54.59	Jenn Dancer	03:00.58	Jenn Dancer	03:08.59
14	Jessica Griffith	00:39.00	Haley Adams	00:59.58	Jessica Griffith	01:29.57	Haley Adams	02:07.06	Haley Adams	03:38.54	Haley Adams	03:34.0
15	Haley Adams	00:40.01	Jessica Griffith	00:59.59	Haley Adams	01:32.59	Orla Walsh	02:09.00	Kelly Sullivan	03:58.0	Kelly Sullivan	03:55.57
16	Michelle Kinney	00:44.57	Michelle Kinney	01:01.01	Kelly Sullivan	01:52.00	Jessica Griffith	03:28.00	Orla Walsh	04:22.54	Jessica Griffith	04:59.57
17	Talayna Fortunato	00:55.52	Kelly Sullivan	01:12.56	Camzin Martin	02:41.04	Camzin Martin	05:19.04	Jessica Griffith	04:44.58	Orla Walsh	05:17.55
18	Kelly Sullivan	01:01.00	Camzin Martin	01:29.02	Cassandra Ohman	05:47.00	Cassandra Ohman	06:26.08	Camzin Martin	06:50.0	Camzin Martin	07:22.54
19	Orla Walsh	01:16.52	Cassandra Ohman	03:56.02							Cassandra Ohman	DNF
20	Cassandra Ohman	03:21.59									Analisa Marquez	DNF

The temperature soared to the mid-90s by the time the semi-finals began. How would the heat affect everyone's time in their second race of the day? Short answer: it didn't. Every single placement time in the semi-finals was at least 7.1 seconds faster than that respective placement time from the qualifying round. In fact, 7/10 placement times from the semi-finals were at least 20 seconds faster than the time that achieved that placement during round 1.

Place	1	2	3	4	5	6	7	8	9	10
Qualifying	16:48.9	17:11.7	17:23.2	17:50.7	17:54.6	18:24.0	18:26.3	18:49.9	18:59.3	19:04.4
Semi-Finals	16:41.8	16:44.0	17:15.3	17:16.0	17:24.4	17:32.2	17:56.3	18:19.9	18:40.6	18:44.2
Difference	0:07.1	0:27.7	0:07.9	0:34.7	0:30.2	0:51.8	0:30.0	0:30.0	0:18.57	0:20.2

## Fastest Splits

You'll see where everyone made up ground or faded for each zone.

- Once again, despite consisting of four workout zones (DB C&J, box jump overs, pull-ups, and wall balls), non-pure-OCR athletes posted the 8 fastest times in Zone 1 during round 2.
- Zone 3 heavily favored OCR athletes as well, featuring Kong, a sled drag, an angled wall, then 300m of running. Unsurprisingly, the top 3 fastest splits on this run-heavy section came from OCR athletes.
- Zone 5 was by far the biggest difference-maker once again:
  - Carolyne Prevost was the fastest overall athlete in the sandbag zone in both rounds 1 and 2.
  - Emily Abbott and Cassidy Lance were the only other 2 athletes with a top-5 split in the sandbag zone during both rounds 1 and 2.
  - Surprisingly, Corinna Coffin had the 11th fastest split in the sandbag zone, nearly 1:30 slower than Carolyne Prevost. Cassidy Watton was the only other athlete to advance to the finals despite a bottom-10 split in the sandbag zone.

Rank	400m (After BTTW)	Slower	800m (Before Kong)	Slower	1100m (Last Bale Bonds)	Slower	1200m (After Leap of Faith)	Slower	1400m (Before Rope Climb)	Slower	1600m (Finish Line)	Slower
1	Emma Chapman	03:32.08	Orla Walsh	03:22.00	Corinna Coffin	03:11.53	Corinna Coffin	01:25.0	Carolyne Prevost	02:24.5	Candice Wagner	01:20.56
2	Carolyne Prevost	00:00.00	Lauren Weeks	00:12.07	Candice Wagner	00:02.13	Cassidy Watton	00:17.54	Emily Abbott	00:13.53	Lauren Weeks	00:06.3
3	Corinna Coffin	00:09.59	Corinna Coffin	00:15.01	Carolyne Prevost	00:14.06	Candice Wagner	00:18.54	Lauren Weeks	00:32.53	Corinna Coffin	00:06.4
4	Cassidy Lance	00:11.56	Christin Panchik	00:17.58	Cassidy Lance	00:18.03	Emily Abbott	00:19.57	Cassidy Lance	00:35.2	Christin Panchik	00:06.5
5	Lauren Weeks	00:21.53	Candice Wagner	00:22.54	Cassidy Watton	00:22.06	Carolyne Prevost	00:21.58	Talayna Fortunato	00:35.50	Kimberlee Dekrey	00:09.3
6	Analisa Marquez	00:21.58	Talayna Fortunato	00:23.02	Lauren Weeks	00:23.06	Cassidy Lance	00:24.2	Kimberlee Dekrey	00:51.59	Cassidy Lance	00:10.57
7	Candice Wagner	00:22.59	Cassidy Watton	00:25.00	Talayna Fortunato	00:24.14	Kelly Sullivan	00:24.57	Candice Wagner	00:52.58	Cassidy Watton	00:11.2
8	Emily Abbott	00:24.53	Carolyne Prevost	00:27.56	Orla Walsh	00:28.11	Kimberlee Dekrey	00:28.0	Michelle Kinney	01:00.57	Emma Chapman	00:12.4
9	Cassidy Watton	00:31.01	Cassidy Lance	00:36.00	Christin Panchik	00:33.12	Talayna Fortunato	00:28.59	Jenn Dancer	01:06.55	Talayna Fortunato	00:15.10
10	Christin Panchik	00:31.55	Kelly Sullivan	00:39.52	Emily Abbott	00:34.10	Christin Panchik	00:29.3	Jessica Griffith	01:16.58	Haley Adams	00:16.12
11	Kimberlee Dekrey	00:34.53	Kimberlee Dekrey	00:41.04	Jenn Dancer	00:36.06	Lauren Weeks	00:32.0	Corinna Coffin	01:27.57	Kelly Sullivan	00:19.3
12	Jenn Dancer	00:38.59	Michelle Kinney	00:44.00	Michelle Kinney	00:36.11	Michelle Kinney	00:46.58	Camzin Martin	01:30.56	Emily Abbott	00:20.6
13	Camzin Martin	00:38.59	Jenn Dancer	00:46.55	Kimberlee Dekrey	00:39.05	Jenn Dancer	00:56.3	Haley Adams	01:31.48	Carolyne Prevost	00:21.6
14	Jessica Griffith	00:39.00	Emily Abbott	00:47.02	Jessica Griffith	00:44.04	Haley Adams	00:56.5	Christin Panchik	01:37.48	Jenn Dancer	00:29.7
15	Haley Adams	00:40.01	Haley Adams	00:47.53	Haley Adams	00:47.07	Cassandra Ohman	01:01.6	Cassidy Watton	01:40.57	Jessica Griffith	00:36.5
16	Michelle Kinney	00:44.57	Jessica Griffith	00:48.55	Kelly Sullivan	00:53.10	Orla Walsh	01:27.57	Kelly Sullivan	02:03.1	Camzin Martin	00:54.0
17	Talayna Fortunato	00:55.52	Analisa Marquez	00:59.56	Camzin Martin	01:26.08	Jessica Griffith	02:20.1	Orla Walsh	02:13.54	Orla Walsh	01:16.7
18	Kelly Sullivan	01:01.00	Cassandra Ohman	01:01.59	Cassandra Ohman	02:05.04	Camzin Martin	02:59.58				
19	Orla Walsh	01:16.52	Camzin Martin	01:17.59								
20	Cassandra Ohman	03:21.59										

## Completion Time vs. Fastest Split Per Zone

Here's how to interpret this chart:

- 1.00 – this person had the fastest split in this zone
- Every number above 1.00 is how much extra time it took someone to complete that zone compared to the fastest split
  - For instance, Hunter McIntyre had the fastest split in the “800m” column since his value is 1.00. Jacob Heppner, 2nd fastest qualifier, has a 1.15 value, meaning it took him 1.15 times longer (or 15% longer) to complete Zone 2 than Hunter.
  - If your value is 2.00, it took you twice as long to complete a zone as the fastest person that round.
- Blue = fast, red = slow

Some observations from the data:

- Out of the 60 different data points for the top-10 qualifiers combined, there were only 2 red cells in all 6 zones combined for those who advanced to the finals. In other words, literally everyone who advanced to the finals completed nearly every zone at or significantly above average.
- Corinna Coffin and Cassidy Watton had the two slowest sandbag zone splits of anyone who made the finals, completing the zone 61% and 70% slower, respectively, than Carolyne Prevost, who had the fastest split. The fastest split out of anyone who missed the finals was 42% slower than Carolyne.
- Of the 10 people who qualified for the finals, 8 were CrossFit athletes and 2 were OCR athletes. Note: I'm counting Corinna and Cassidy as OCR athletes, although they are both transitioning more towards CrossFit at this stage in their career. Places 11-14 were by CrossFit athletes, suggesting that the gap between CrossFit and OCR is significantly bigger for women than men.

Rank	Bib	Last	First	Cat.	Wave	400m (After BTTW)	800m (Before Kong)	1100m (Last Bale Bonds)	1200m (After Leap of Faith)	1400m (Before Rope Climb)	1600m (Finish Line)	Discipline
1	211	Prevost	Carolyne	F	1	1.04	1.14	1.07	1.26	1.00	1.26	CrossFit
2	221	Chapman	Emma	F	2	1.00					1.15	CrossFit
3	222	Coffin	Corinna	F	2	1.09	1.07	1.00	1.00	1.61	1.07	OCR + CrossFit
4	223	Wagner	Candice	F	2	1.16	1.11	1.01	1.22	1.37	1.00	CrossFit
5	230	Weeks	Lauren	F	2	1.15	1.06	1.12	1.38	1.23	1.07	CrossFit
6	212	Lance	Cassidy	F	1	1.10	1.18	1.09	1.28	1.24	1.14	CrossFit
7	213	Abbott	Emily	F	1	1.17	1.23	1.18	1.23	1.10	1.25	CrossFit
8	215	Fortunato	Talayna	F	1	1.32	1.11	1.13	1.34	1.25	1.19	CrossFit
9	219	Dekrey	Kimberlee	F	1	1.22	1.20	1.20	1.33	1.36	1.11	CrossFit
10	224	Watton	Cassidy	F	2	1.20	1.12	1.12	1.21	1.70	1.14	OCR
11	227	Panchik	Christin	F	2	1.20	1.09	1.17	1.34	1.68	1.08	CrossFit
12	216	Kinney	Michelle	F	1	1.27	1.22	1.19	1.55	1.42		CrossFit
13	226	Dancer	Jenn	F	2	1.24	1.23	1.19	1.66	1.46	1.36	CrossFit
14	217	Adams	Haley	F	1	1.24	1.24	1.25	1.66	1.64	1.20	CrossFit
15	220	Sullivan	Kelly	F	1	1.35	1.20	1.28	1.29	1.85	1.24	OCR
16	218	Griffith	Jessica	F	1	1.24	1.24	1.23	2.65	1.53	1.45	CrossFit
17	228	Walsh	Orla	F	2	1.42	1.00	1.15	2.03	1.93	1.94	OCR
18	214	Martin	Camzin	F	1	1.24	1.39	1.45	3.12	1.63	1.67	CrossFit
19	229	Ohman	Cassandra	F	2	2.04	1.31	1.65	1.72			OCR
20	225	Marquez	Analisa	F	2	1.15	1.30					CrossFit

## OCR vs. CrossFit

Qualifying rounds stats are combined with semi-finals stats to see how well OCR athletes did compared to CrossFit athletes in each zone during both of the first 2 rounds:

AVG SPLIT -- ALL						
Sport	400m (After BTTW)	800m (Before Kong)	1100m (Last Bale Bonds)	1200m (After Leap of Faith)	1400m (Before Rope Climb)	1600m (Finish Line)
Semis						
OCR	05:04.51	03:53.43	04:09.1	02:12.58	04:23.22	01:56.20
CrossFit	04:00.5	04:01.33	03:45.33	02:17.28	03:18.32	01:39.5
Qualifiers						
OCR	05:56.52	04:48.13	06:01.42	02:07.27	04:54.13	01:31.18
CrossFit	04:33.22	05:20.20	05:09.1	02:09.19	03:30.39	01:41.9
COMPLETION TIME vs. FASTEST SPLIT PER ZONE -- ALL						
Sport	400m (After BTTW)	800m (Before Kong)	1100m (Last Bale Bonds)	1200m (After Leap of Faith)	1400m (Before Rope Climb)	1600m (Finish Line)
Semis						
OCR	1.27	1.00	1.10	1.00	1.33	1.17
CrossFit	1.00	1.03	1.00	1.03	1.00	1.00
Qualifiers						
OCR	1.31	1.00	1.17	1.00	1.40	1.00
CrossFit	1.00	1.11	1.00	1.01	1.00	1.11

- CrossFit athletes completed both workout zones over a minute seconds faster than OCR athletes.
- OCR athletes were only 3% faster than CrossFit athletes compared to 11% in round 1 in Zone 2, which covered the most obstacle and run-heavy section of the course.
- Completion times on Funky Monkey and Leap of Faith were nearly identical for OCR and CrossFit athletes during both of the first 2 rounds.

## Checkpoints

Here's another visual of the data and where people ranked throughout the race. The further to the right that a cell is blue, the more likely that they would advance to the finals. Similarly, the further to the right that a cell is red, the less likely that they would finish in the top-20.

Rank	Bib	Last	First	Cat.	Wave	400m (After BTTW)	800m (Before Kong)	1100m (Last Bale Bonds)	1200m (After Leap of Faith)	1400m (Before Rope Climb)	1600m (Finish Line)
1	211	Prevost	Carolyne	F	1	03:32.8	07:22.4	10:48.3	12:35.1	14:59.6	16:41.8
2	221	Chapman	Emma	F	2	03:23.1	-	-	-	15:11.0	16:44.0
3	222	Coffin	Corinna	F	2	03:42.7	07:19.8	10:31.1	11:56.1	15:48.3	17:15.3
4	223	Wagner	Candice	F	2	03:55.7	07:40.1	10:54.7	12:38.1	15:55.4	17:16.0
5	230	Weeks	Lauren	F	2	03:54.1	07:28.8	11:03.7	13:00.7	15:57.5	17:24.4
6	212	Lance	Cassidy	F	1	03:44.4	07:42.4	11:12.0	13:01.2	16:00.9	17:32.2
7	213	Abbott	Emily	F	1	03:57.1	08:06.3	11:52.6	13:37.3	16:15.1	17:56.3
8	215	Fortunato	Talayna	F	1	04:28.0	08:13.2	11:49.9	13:43.8	16:43.3	18:19.9
9	219	Dekrey	Kimberlee	F	1	04:07.1	08:10.5	12:01.3	13:54.3	17:10.7	18:40.6
10	224	Watton	Cassidy	F	2	04:03.9	07:50.9	11:24.8	13:07.2	17:12.4	18:44.2
11	227	Panchik	Christin	F	2	04:04.3	07:44.1	11:29.6	13:23.9	17:25.2	18:52.3
12	216	Kinney	Michelle	F	1	04:17.5	08:23.5	12:11.9	14:23.7	17:48.9	19:20.1
13	226	Dancer	Jenn	F	2	04:11.7	08:20.2	12:08.1	14:29.4	18:00.4	19:50.7
14	217	Adams	Haley	F	1	04:12.9	08:22.2	12:21.2	14:42.7	18:38.0	20:15.8
15	220	Sullivan	Kelly	F	1	04:33.8	08:35.0	12:40.3	14:30.0	18:57.6	20:37.5
16	218	Griffith	Jessica	F	1	04:11.8	08:22.3	12:18.0	16:03.1	19:44.4	21:41.5
17	228	Walsh	Orla	F	2	04:49.0	08:11.0	11:51.4	14:44.1	19:22.0	21:59.3
18	214	Martin	Camzin	F	1	04:11.7	08:51.6	13:29.7	17:54.5	21:49.6	00:04.2
19	229	Ohman	Cassandra	F	2	06:54.7	11:18.6	16:35.3	19:01.9	-	-
20	225	Marquez	Analisa	F	2	03:54.6	08:16.2	-	-	-	-

## Splits Between Timing Mats

This is essentially the same thing as the table in the “Checkpoints” section above, except that it lists split times (rather than finishing time) in order of overall finishing place in the semi-final rounds.

Rank	Bib	Last	First	Cat.	Wave	400m (After BTTW)	800m (Before Kong)	1100m (Last Bale Bonds)	1200m (After Leap of Faith)	1400m (Before Rope Climb)	1600m (Finish Line)	Discipline
1	211	Prevost	Carolyne	F	1	03:32.8	03:49.56	03:25.59	01:46.58	02:24.5	01:42.2	CrossFit
2	221	Chapman	Emma	F	2	03:23.1	---	---	---	---	01:33.0	CrossFit
3	222	Coffin	Corinna	F	2	03:42.7	03:37.1	03:11.53	01:25.0	03:52.2	01:27.0	OCR + CrossFit
4	223	Wagner	Candice	F	2	03:55.7	03:44.54	03:14.6	01:43.54	03:17.3	01:20.56	CrossFit
5	230	Weeks	Lauren	F	2	03:54.1	03:34.7	03:34.59	01:57.0	02:56.58	01:26.59	CrossFit
6	212	Lance	Cassidy	F	1	03:44.4	03:58.0	03:29.56	01:49.2	02:59.7	01:31.53	CrossFit
7	213	Abbott	Emily	F	1	03:57.1	04:09.2	03:46.3	01:44.57	02:37.58	01:41.2	CrossFit
8	215	Fortunato	Talayna	F	1	04:28.0	03:45.2	03:36.7	01:53.59	02:59.55	01:36.6	CrossFit
9	219	Dekrey	Kimberlee	F	1	04:07.1	04:03.4	03:50.58	01:53.0	03:16.4	01:29.59	CrossFit
10	224	Watton	Cassidy	F	2	04:03.9	03:47.0	03:33.59	01:42.54	04:05.2	01:31.58	OCR
11	227	Panchik	Christin	F	2	04:04.3	03:39.58	03:45.5	01:54.3	04:01.53	01:27.1	CrossFit
12	216	Kinney	Michelle	F	1	04:17.5	04:06.0	03:48.4	02:11.58	03:25.2	---	CrossFit
13	226	Dancer	Jenn	F	2	04:11.7	04:08.55	03:47.59	02:21.3	03:31.0	01:50.3	CrossFit
14	217	Adams	Haley	F	1	04:12.9	04:09.53	03:59.0	02:21.5	03:55.53	01:37.8	CrossFit
15	220	Sullivan	Kelly	F	1	04:33.8	04:01.52	04:05.3	01:49.57	04:27.6	01:39.59	OCR
16	218	Griffith	Jessica	F	1	04:11.8	04:10.55	03:55.57	03:45.1	03:41.3	01:57.1	CrossFit
17	228	Walsh	Orla	F	2	04:49.0	03:22.0	03:40.4	02:52.57	04:37.59	02:37.3	OCR
18	214	Martin	Camzin	F	1	04:11.7	04:39.59	04:38.1	04:24.58	03:55.1	02:14.56	CrossFit
19	229	Ohman	Cassandra	F	2	06:54.7	04:23.59	05:16.57	02:26.6	---	---	OCR
20	225	Marquez	Analisa	F	2	03:54.6	04:21.56	---	---	---	---	CrossFit

## CONCLUSION

Hopefully this data gives you a better perspective on how racers performed in each of the various zones throughout the qualifying rounds since it would have been impossible to realize all of this info watching on TV or even as a spectator at the event. After looking through the data, here are some of the takeaways:

- Round 2 once again showed that strength stations were what determined who advanced. During the semi-finals, 8/10 women with a top-10 split in the first workout zone and sandbag zone split ended up making the finals.
- During round 2, 7/10 women with a top-10 finishing time during round 1 also had a top-10 finishing time in round 2 (compared to 9/10 men).
- Both of the semi-finals advanced 5 women to the finals, suggesting that Tough Mudder made a smart decision to stagger seeds in round 2 based on evens/odds in round 1.

*Note: As mentioned before, we'll wait to release statistical analysis of the finals a couple days after it airs on CBS to avoid spoilers. Thank you Tough Mudder HQ for providing the split data so we could nerd-out on race results. Jack, thank you for your awesome tables and takeaways!*