

## Zwift Performance Verification Board Decision



Case Number: 0080

Name: Shanni Berger

Event: Off the MAAP – Women’s Race #2 (rider provisional finish position: 2<sup>nd</sup>)

Date: 17<sup>th</sup> August 2020

### Details:

1. In the Zwift Performance Verification Board decision “0078 – Berger”, dated 18<sup>th</sup> August, the Board decided to annul the result of the rider in the above race due to a breach of the Technical requirements for the event. In summary:

- a) The event required the primary source of power data to be a trainer, not a power meter; but
  - i. The event logs collected by the Zwift game server showed that the rider had paired a power meter (not a trainer) as their primary source of power data; and
  - ii. The average variance between the primary power data recorded by the game, and the power data recorded by the rider’s Garmin which was paired with their power meter, was approx. 0%. This is inconsistent with the typical variation seen between trainers and power meters, and consistent with the variation seen between recording the same source using ANT+ & BLE.
- b) The Board judged that the most likely explanation for points (i) & (ii) above, is that the rider paired their power meter to both the game as the primary power source via BLE, and to their Garmin via ANT+.

2. Over the next 24 hours, Zwift received multiple emails from the rider’s Team Manager and team owner, protesting the annulment of the result. Their stated grounds for this were:

- a) That the rider had been “adamant” that they had their trainer paired as the primary power source.
- b) That the rider had provided the team with the Zwift log.txt file recorded on their own computer from the event which included the following section identifying the pairing used by the game (emphasis added):

```
[11:24:40] Device List:
[11:24:40] =====
[11:24:40] Controllable Trainer: ANT+ Trainer 63016 (0x11F628) [ANT]
[11:24:40]           Heart Rate: HR Strap 21824 (0x785540) [ANT]
[11:24:40]           Cadence: Stages 8939 89 (0x149D7D59) [BLE]
[11:24:40]           Power: SARIS PWR 63016 (0xBF628) [ANT] [BLE]
[11:24:40] =====
```

Critically, this states that the primary power source is a “SARIS PWR 63016” – a smart trainer.

3. In parallel to the game saving the log.txt file on the rider’s computer, the game also automatically saves the file on the Zwift cloud servers. The cloud version of this file is identical to the file provided by the rider, except for the following section (again, emphasis added).

```
[11:24:40] Device List:
[11:24:40] =====
[11:24:40] Controllable Trainer: ANT+ Trainer 63016 (0x11F628) [ANT]
[11:24:40]           Heart Rate: HR Strap 21824 (0x785540) [ANT]
[11:24:40]           Cadence: Stages 8939 89 (0x149D7D59) [BLE]
[11:24:40]           Power: Stages 8939 89 (0x149D7D59) [BLE]
[11:24:40] =====
```

Critically, this states that the primary power source is a “Stages 8939” – a power meter.

4. Further investigation of the log.txt file sent by the rider, and the original version stored on the Zwift cloud servers showed numerous other discrepancies:

a) The key line outlined in points (2) and (3) above has an anomaly in the rider's version (emphasis added).

Power: SARIS PWR 63016 (0xBF628) [ANT] [BLE]

Expert evidence received from the Zwift software development team shows that the Zwift game does not produce log files in this format. Paired devices are either listed as being connected via "[ANT]" or "[BLE]" but never both.

b) The sections of the riders log.txt file that correspond to the game detecting the riders powermeter are all missing from the file. Whilst this might be possible if the rider had no powermeter, the rider freely admitted that they were using a power meter as a cadence sensor (and the riders log.txt file also confirms the use of the powermeter as a cadence sensor during the event).

If the rider, and the riders file, are therefore to be believed as accurate, then the game would have to be using the powermeter as a cadence sensor, without ever having detected its existence.

c) In total there are 27 lines in the riders log.txt file that differ from the original version – all of them relate to the powermeter; either lines that are completely missing in the riders version, or differ by referring to the primary power source as being the trainer rather than the power meter.

However, not all of the lines referencing what the primary power source is are different. In the riders log.txt file there are still some lines that state that the primary power source is the riders powermeter. If the rider, and the riders file, are therefore to be believed as accurate, the game would have to be rapidly and repeatedly swapping between using the trainer and powermeter as the primary power source (and, as point (4b) above, without having ever detected the existence of the powermeter).

d) As noted in point 4c above, the lines in the riders log.txt file that differ all relate to the riders powermeter. Explicitly though, they all refer to the name of the power meter (i.e. lines that use the word "Stages").

However, the log.txt file also logs out internal game-specific numeric codes for all the equipment being used as well as human readable words. Notably, these game-specific numeric codes for the equipment being used that are in the two files are identical between the riders version of the log.txt file and the original version. This clearly indicates that the game is using the riders powermeter as the primary power source, and if the rider is to be believed, the game must have, for some unknown reason, chosen to change just the human readable names it gives to the equipment.

5. As noted above, the Log.txt file containing the discrepancies outlined above was passed to by Zwift by the riders team, and it was unclear whether these changes were present on the file stored on the riders computer, or had been made afterwards by their team. To help establish this, the rider was requested to send the files stored on their computer directly to Zwift. The files they sent were identical to those sent to Zwift by the team (i.e. contained the different primary power source, and incorrectly formatted data).

6. In summary, the evidence in this case is directly contradictory.

Evidence for the rider having ridden with a power meter as their primary power source:

- The event logs collected by the Zwift game server for the race.
- The power data collected from the rider's power meter matching the power used in the race.
- The log.txt file recorded by the game of the rider's ride stored on Zwift's cloud servers.

Evidence for the rider having ridden with a trainer as their primary power source:

- A log.txt file provided by the rider from their own computer, which:
  - Is different from the one automatically saved on Zwift's cloud servers.
  - Uses a format for logs that could not be produced by the Zwift game.
  - Contains numerous other discrepancies consistent with the file having been manually edited.

7. In order to give the rider the opportunity to put their side of the case forward, all the points above were shared with them, and they were asked for their response.

The rider repeatedly denied anything was wrong and claimed they had just sent the files “*as they are*” on their computer, claiming that they could not have edited the plain text files as they did not have the technical capability to do so. Zwift also received additional petitioning from the riders family, with repeated statements of the riders innocence based on them knowing the rider and that they did not have the technical capability to edit a plain text file.

After numerous exchanges, Zwift received an email from the rider expressing their “*apologies for any misunderstanding*” and that it’s “*very possible that I [the rider] made mistakes with the software due to human error*”.

**Decision:**

- The Performance Verification Board consider that it is beyond reasonable doubt that the rider used their power meter as the primary source of power for the race, and therefore that the original judgement of annulling the result of the race for breaching the Technical requirements of the event should stand.
- The Board further consider that it is beyond reasonable doubt that the log.txt file provided by the rider as evidence of the pairing they used was edited after the event to change the primary power source.
- The Board consider that it is beyond reasonable doubt that this was a deliberate action to fabricate evidence to try to overturn the original decision by Zwift to annul the rider’s result in the race.
- Pursuant to Appendix B of the Zwift Cycling Esports Rules and Regulations, the Board has therefore decided that a Tier 3 sanction (“Bringing the sport into disrepute” – “Fabrication or modification of any data”) shall be applied, and in light of the rider’s admission of fault the rider shall receive a six month suspension from Zwift Cycling Esports events.

This suspension shall be back-dated to the point when the edited file was submitted to Zwift, and therefore run from 18 August 2020 to 17 February 2021 inclusive.

<b>Signature:</b>	
<b>Name:</b>	Dr George Gilbert, Zwift Performance Verification Board
<b>Date:</b>	20 September 2020