

The Downs & Back 600 (5-6th May 2018 Mark Riley)

The D&B is a ride of historical importance in the annals of Audax Queensland, dating back to the dim distant past of at least 2003 (the first mention I can find in Checkpoint). Vaughan Kippers has mostly been the RO during this time; Sandy Vigar and Errol Ross ROing in some years. This year 15 riders registered, with an unprecedented nine starters for the 600km. Also unusual, the 600 riders stayed roughly grouped for most of the ride. Therefore I am happily in the position of being able to provide you with a report on all the embarrassing situations that occurred on the 600k ride.

As they say in Science: Let's look at the data and see what we can make up.

Firstly, we were all on the same ride..... - or were we?

Here's what I've been able to glean from Strava from all nine riders. Yes, all nine recorded their ride! (And why wouldn't you be on Strava. Publicly revealing your whereabouts, allowing people to stalk you and look at statistics of your bodily functions... that's not intrusive is it? What's not to like??) OK, time to intrude.

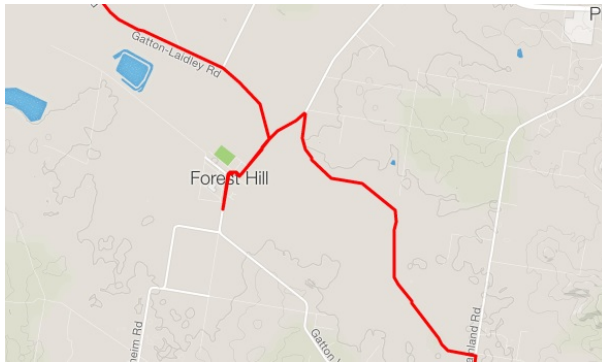
Rider	Raw Distance	Computer
Brian Hornby	616.7	Garmin 1000
Jeff Franklin	538.4 (31.6+43.7+1.0+19.7+442.5+?)	Wahoo ELEMNT
Mark Harris	611.1	Garmin 1000
Mark Riley	611.0	Garmin 520
Pat Lehane	611.8	Lezyne Super GPS
Paul Witzerman	620.3 (358.2+262.1)	Garmin 520
Ral Dover	620.8	Garmin 820
Scott McCarthy	641.0	Apple Watch Ser 3
Tara Horner	639.1	Garmin 1000

There was much discussion and angst expressed when Vaughan revealed that this year's D&B600 was actually going to be 612km. But look at the above: What's going on? GPS is meant to be accurate to 3m and that's a fair spread of distances. How far did we actually ride? Let's drill down, dig deep, calibrate, correct and massage the data.

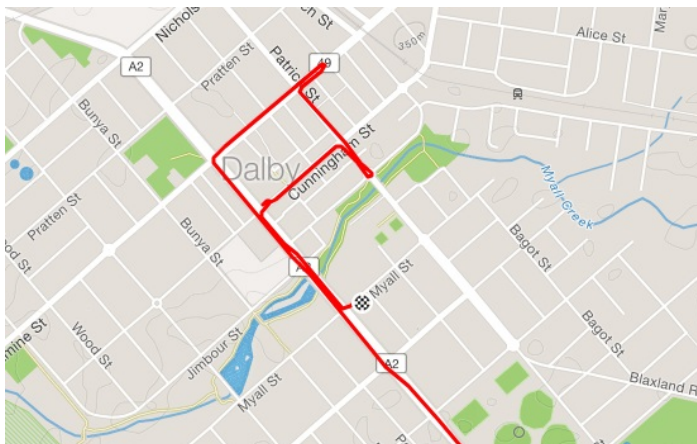
We'll have to take into account the various GPS makes & models. (We may even have to dwelve into their AL-GO-RITHMS to see how big a ruler each model uses to calculate distance. Do they go fractal? Let's not worry about that for the moment)

The data does not reflect well on Wahoo, but we can't draw too many conclusions from one point, so I'm happy to put Jeff's data aside as an "outlier". Tara and Scott messed up their data by riding an extra 40k to and from the ride. As you do. On your first 600k. Let's call them "artifacts".

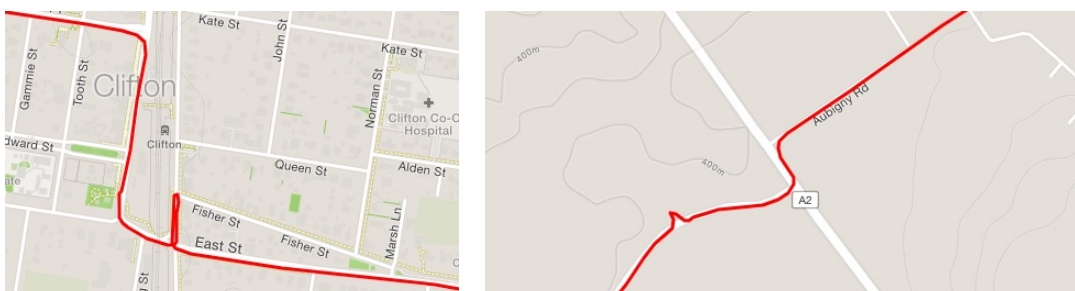
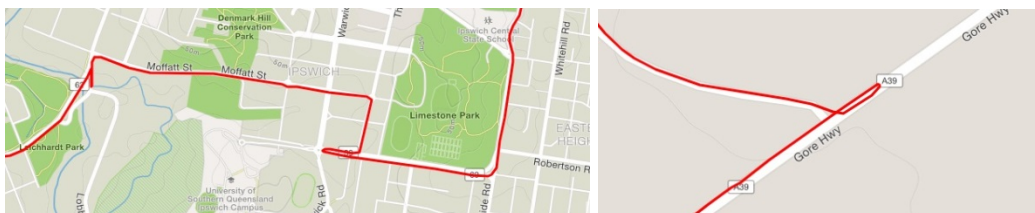
Looking at the remaining 6 riders, the discrepancy between the Garmin 1000s is puzzling as I was with Brian and Harry for most of the time and Brian isn't in the habit of doing bonus ks. The discrepancy of the Garmin 520s is more understandable as I met Paul coming back from taking the wrong turn, that headed back towards Laidley. (You know, the turn that Vaughan warned everybody about at the start.)



But that little out and back is only 3.1 km, so there's something you're not telling us Paul. Ah, here it is: a quick tour of Dalby on the way in. That's another 2.9 km

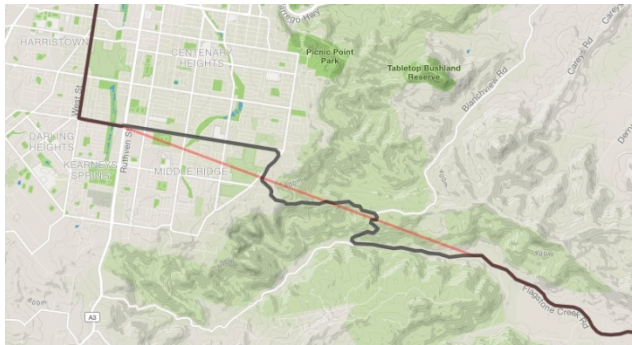


But there is still a discrepancy of 2.3k. Closer examination of Ipswich, turn-off from Gore Hwy, Clifton, coming out of Pittsworth can pretty much account for it all.



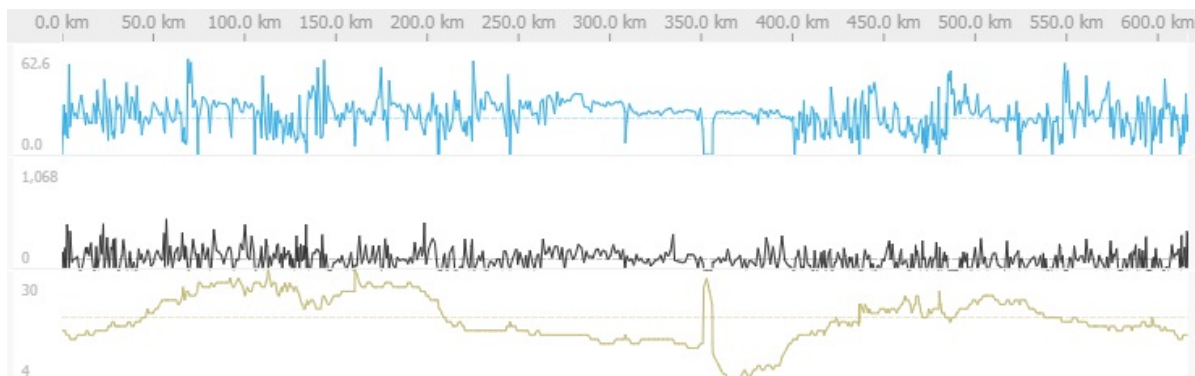
That last one didn't cost you any distance, Paul, but it's always good to mark the place where you've chundered up a potato cake.

So we are getting good agreement of 611.0 km for the two 520s. Harry's Garmin 1000 is 611.1k, which made me feel all warm inside, until I saw the note in the Strava title: "Garmin on pause down the range" And sure enough:

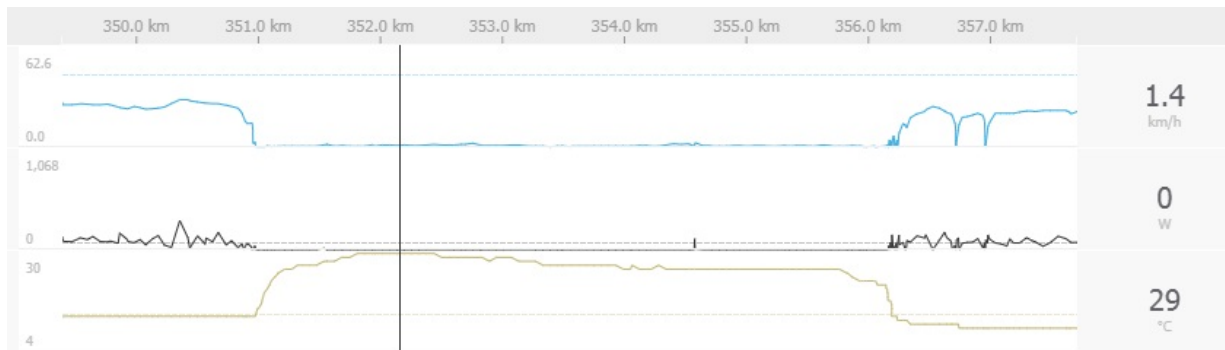


That missing distance, must mean he rode a lot more than the recorded distance of 611.1k... After much teeth-nashing, using the "Analysis" tab of the Strava data, I see that the start of the paused section the distance is 476.6 k and the end of the paused section the distance is 484.8k. Very clever, Mr Garmin 1000, you've automatically substituted the distance from the course route for that paused section. (Even though speed, cadence, etc is zero in the paused section).

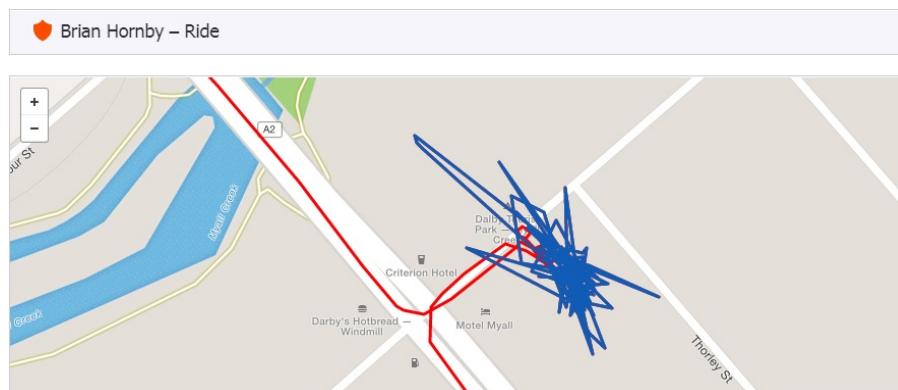
OK so that's three riders with $611.0\text{k} \pm 0.1$. What's up with Brian's Garmin 1000 with a recording of 616.7k?



The above is Brian's data as a function of distance, and the clue is the peak in temperature at the sleep control at ~350k. The Garmin warmed up in the room of the Dalby hotel, but the width of the peak must mean that it travelled a bit inside the room (otherwise it would be a single spike). When you zoom in, it seems to have done about 6.6k overnight while in the hotel room:

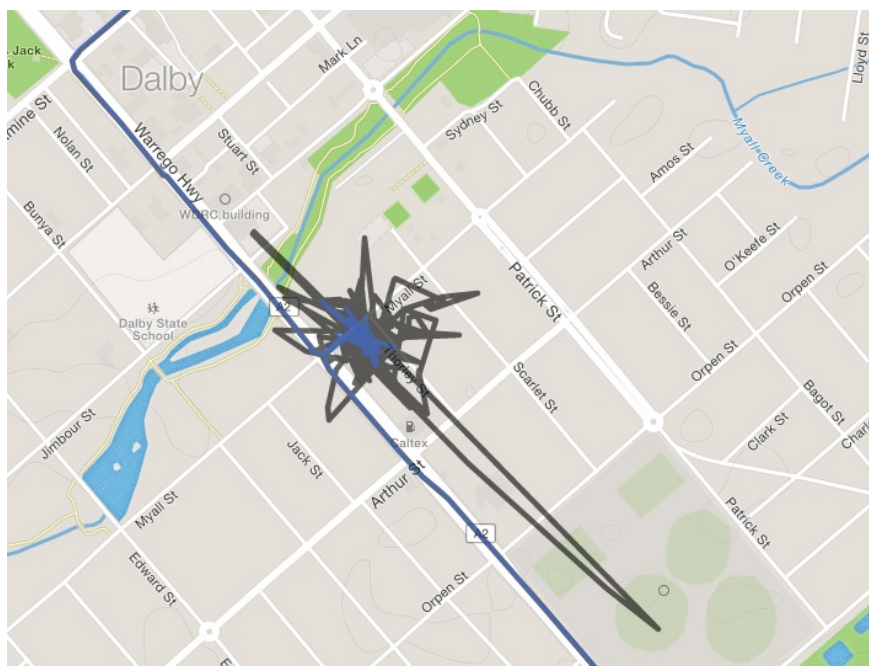


Zooming in on the tracks:



Brian kept his Garmin on overnight (while recharging) so the average elapsed speed remained accurate. Once a Garmin loses its satellites, it starts to wander.

Ral's Edge 820 (620.78k) seems to have had an even worse case of sleep-walking (black) compared to Brian's (blue):



Maybe Ral's bike was further from the window?

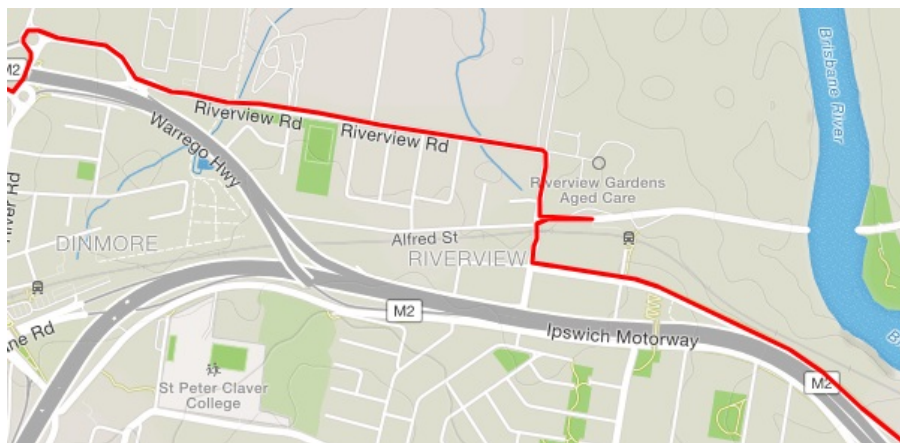
So here are the final results:.

Rider	Raw Distance	Corrected	Computer
Brian Hornby	616.7	611.1	Garmin 1000
Jeff Franklin	538.4 (31.6+43.7+1.0+19.7+442.5+?)	outlier	Wahoo ELEMNT
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Scott McCarthy	641.0	artifact	Apple Watch Ser 3
Tara Horner	639.1	artifact	Garmin 1000

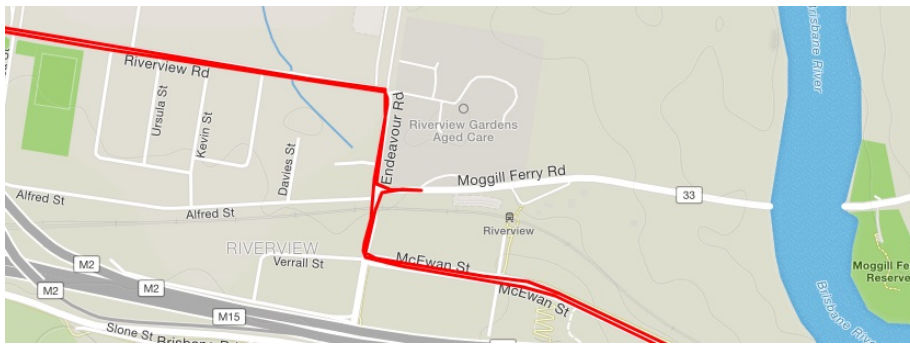
Pretty much all Garmin's had identical distances even after 611.0 km. No real surprise. There would still be small differences depending on whether you walked/rode over to toilets/water, etc. Pat's Lezyne at 611.8k may be significant, as I couldn't see any deviation in Pat's tracks. The difference may be due to different software.

Thank you Vaughan! 2018 was a great edition of the Downs and Back. Of course, lots of very funny, unusual, disturbing, exhilarating, amazing and awesome things happened. But sorry readers, you just had to have been there...

A final cautionary note. When you are at the end of a big ride, you feel pretty pumped and alert – but just how safe and attentive are you? At ~ 590k there is a turn down to Moggil Ferry that looks very much like the correct turn into McEwan St. And just because I've been picking on Paul, here are his tracks:

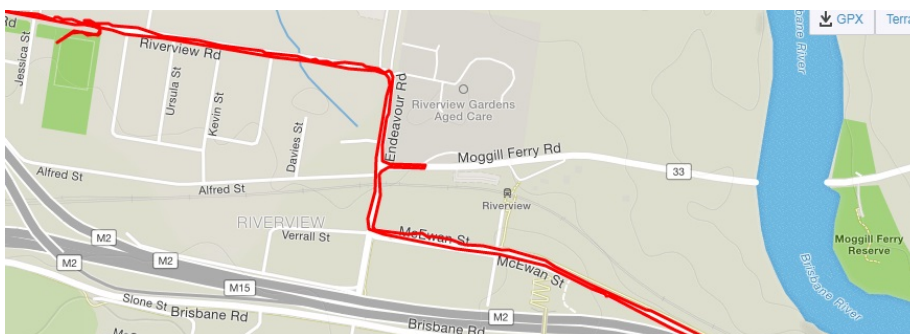


And here's mine:

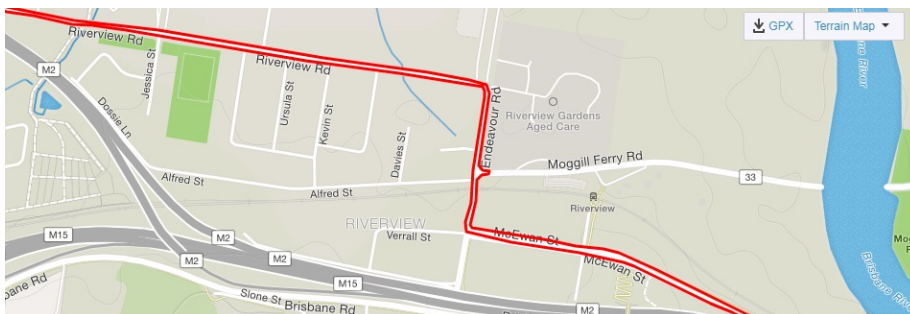


If Scott haven't asked "Umm, should we have turned at the next one?" I probably would have continued until I got wet.

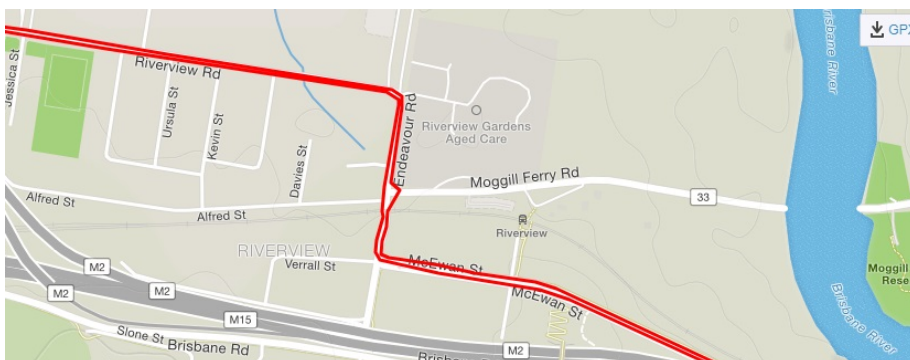
Here's Scott:



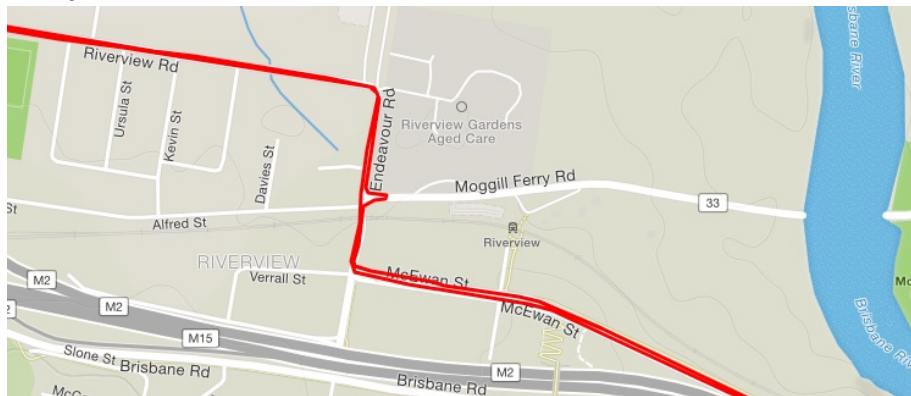
Tara:



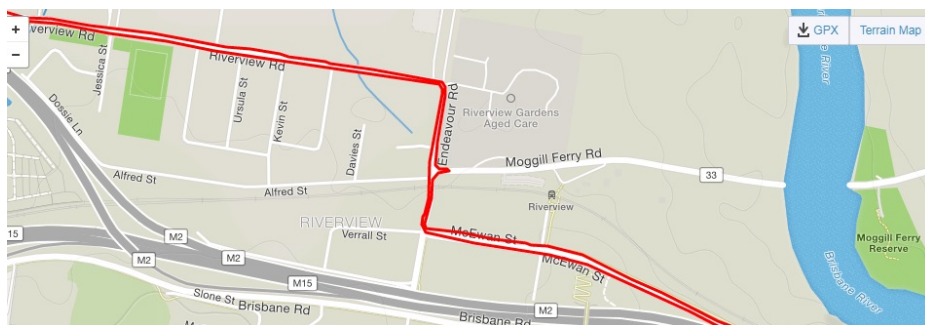
Ral:



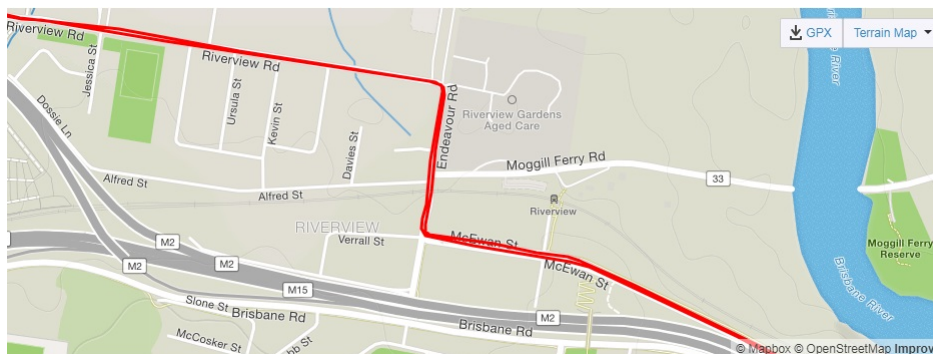
Harry:



Pat:



Brian:



Well done Brian. The end of Jeff's Strava was missing, but I bet he missed it too.