Varia™ RTL515

Radar Tail Light

Hindsight without a Mirror
By A. J. Zelada

As much as I like going forward, I like knowing what is behind me.

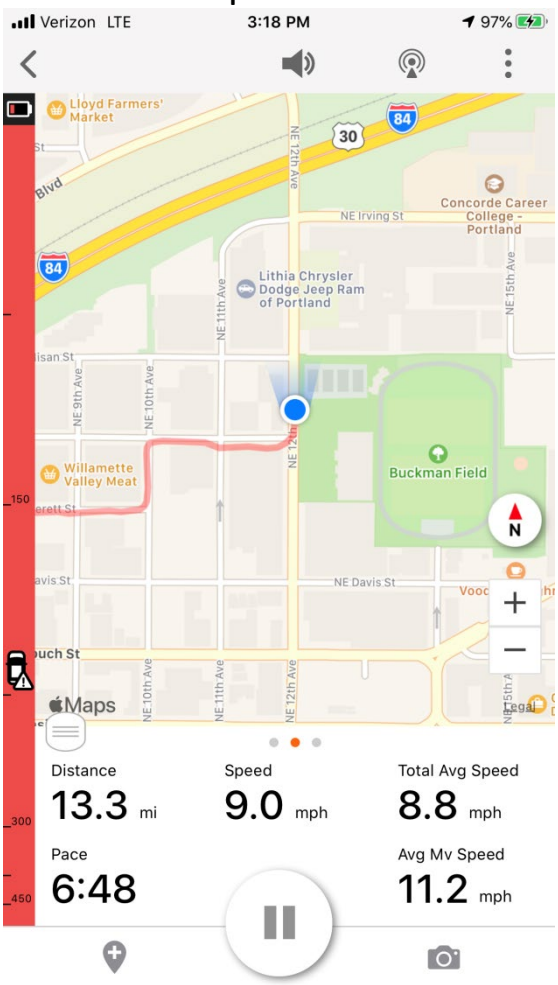
I have broken three mirrors the past 2 years on two different bikes due to bikes falling accidently. Luckily I was not falling with the mirror or the bike. So my frustration with mirrors has made safety a greater worry since I used mirrors most of my biking life. I think I had first mirror was of those Schwinn mirror fifty years ago.

I was intrigued when I saw that Ride with GPS had partnered with Garmin Varia, a radar rear light. Garmin integrated radar awareness of overtaking vehicles for cycles with the iPhone app, Ride with GPS route planning and navigation ability. Originally, the precursor unit only worked with the Garmin Edge computer & other Garmin wearables.

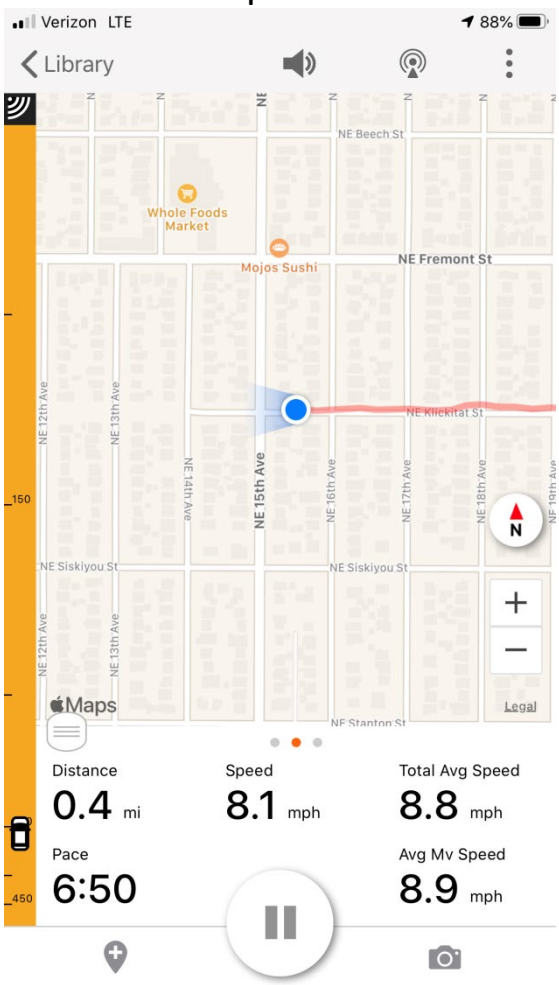
The newer model, Varia RTL515 has an easy Bluetooth connection with an iPhone. First pair the Varia with your phone's Bluetooth. Turn on the Ride with GPS, and then turn on the Varia Light. The light has several selections: Bright, Less bright (peloton courtesy), Night blink, Day Flash, and Standby. The device has two sounds: approaching vehicle and rear approaching vehicle gone. (I call these Coming On and Escape tunes, respectively.)

The description & function are simple: the phone shows a side bar illustrating an approaching vehicle overtaking your path. It visually shows one of three colored slider bars. The Green bar means no detection; an Orange bar shows car icon coming towards you from behind; and the Red bar indicates a ‘speeding’ vehicle at a high rate of speed. Up to 8 vehicles can be detected from speeds 6 to 99 mph.

Fast Speed



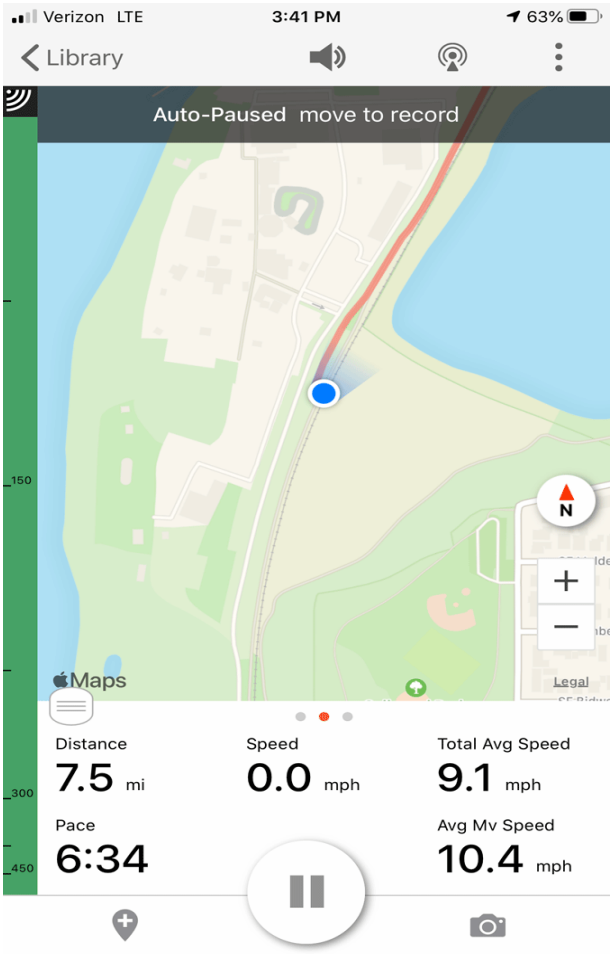
‘Normal’ Speed



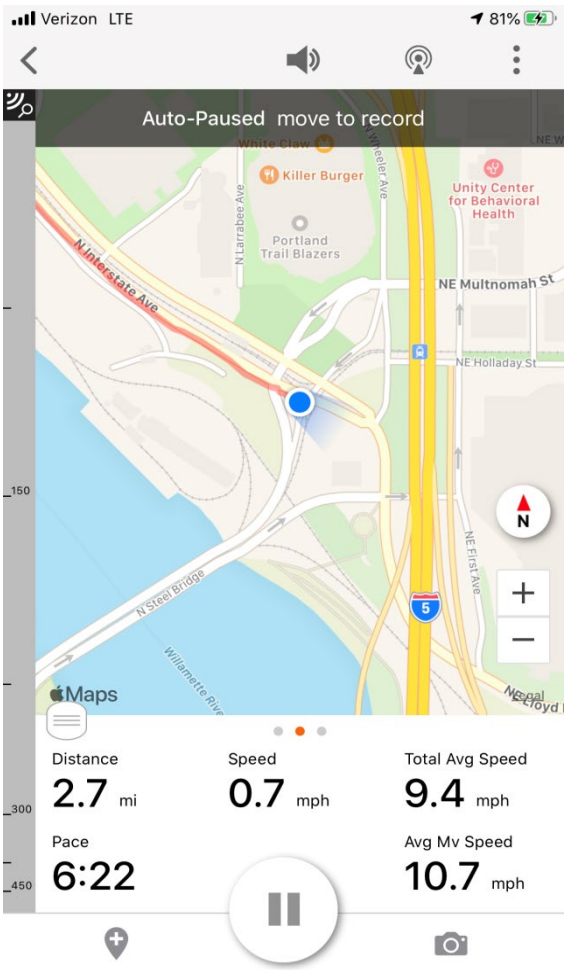
The phone sounds a series of beeps and vibrates to alert you that a vehicle has entered a zone about 140 meters behind you. The rear light is steady when there are no approaching vehicles; the light changes

from steady to blinking when the car approaches; and at some distance the light rapidly blinks until the vehicle passes.

No Vehicles Behind



Low Battery, cars behind



If you are not using an iphone app, the light will be steady in the bright mode; when a vehicle approaches your bike from behind the Varia blinks within that 140 meter distance. It blinks faster when the vehicle gets closer (not sure of that distance) and then returns to solid light when the vehicle passes.

One of the great values for me is that I have presbycusis, the aging ear which often misses the high end sounds. The effect of this is that low sounds can overwhelm others' conversations to make them

unintelligible. Pubs with loud sports televisions are a great example for conditions making me unable to decipher conversations. Road noise is another low rumble that obscures approaching long distance vehicle sounds. The other great aspect is with the increasing number of silent electric cars, this device will get your attention of their quiet approach.

My hearing aids are blue toothed into my phone; I am able to hear the device's musical notes directly for any vehicle coming my way.

In the beginning of use, I would stop and look at the vehicle to see how far the 140 meters distance is. And consistently, this device predictably and consistently showed me vehicles a full block away by inner Portland block city standards. When a car passes you or when a car turns off the forward path, the device sounds the escape tune. I used this not only on the city streets in Portland but on several roads this past June in Casper WY; Grand Island NE; St. Louis MO; Augusta GA; and Charleston SC with great success. These towns have all sorts of streets, bike paths, multi lane roads/turn offs. And this device was absolutely accurate at informing that cars were behind me.

Unique issues: alerts occurred for my cycling when I was paralleling an interstate. The beam width would catch high speed vehicles on that adjacent road. Another alert variance occurs along a bike path. I regularly use a path along the Willamette River in Portland and it alerts me to a cyclist, coming from behind. In this case the cyclists trigger the radar much closer than 140 meters. I would guesstimate that it may be 10 to 40 meters before alert sounds. A fun but annoying to others perhaps occurrence is that if the vehicle/cyclist matches your speed, they will disappear from the screen and touch off the escape sound. The first couple of times this occurred it was a big surprise when the overtaking cyclist sped up. Surprise! They appeared from 'nowhere!' But I have found this behavior of matching another cyclist's speed

happens even when I do this in passing others: I am traveling at an eclipsing speed but then slow down momentarily matching the cyclist's speed before signaling "on your left" or bell sounding as I speed up. So now I know. The physics of objects disappearing when traveling at the same speed somehow amuses my sense of Newton or Einstein.

The Achilles heel: I have found the battery short lived compared to the advertising. An expected 3 hours for me is about 40 miles of city riding. I know this as I bike to Oaks Bottoms from my house in NE Portland; its round trip is 16.5 miles. I get 1.5 round trips of battery life and then it dies in returning to the house the second trip lap homeward. Even though I select peloton light, I can only get about 40 miles use. I doubt I could get 6 or 16 hrs use as advertised. One can dim the light and turn off the blinking to increase battery life but I prefer the brighter light, especially in daylight. The other aspect is the iphone battery discharges at a fast rate using Ride with GPS: The phone battery declines from 100% to 43% from single 16.5 mile trip. I now use a supplemental battery to feed the iphone or I use my generator's light which has a USB port and will charge the phone when cycling over 8 mi/per hour speed. Am thinking I might get a seat bag to put a supplemental battery supply to the Garmin as well for my day long rides. So is adding all this stuff worth a simple mirror?

So, what about the broken mirrors? I still miss having a good mirror at the handlebar level. I think I am too rough to have a mirror on my helmet. But I am going to try…and I notice that I use the device and phone tethered to my hearing aids at all the time. Even though I am 5 decades seasoned, confident rider, this is one more exhale of knowing who is on the road from behind. **Nothing like hindsight.**
Cheers.

Z

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Varia RTL 515

Pro

Great bright light
Radar alert to who is behind is excellent
Bluetooth connection to i phone and hearing aids is excellent for hearing impairment benefit with quiet road users
Works with Garmin and non-Garmin, Ride with GPS software

Cons

Battery life not living to expectations
Cost of iphone and unit
Less handlebar space
Rear seat bag / light/ radar interference