

DATA & VIDEO ANALYSIS REPORT

ROD [REDACTED] @ ROAD ATLANTA

Rod,

Thanks for the video and data. I was able to extract some good information from both systems.

First off, I wanted to highlight the main difference in our corner speeds. Below you will see our MCS (minimum corner speed) compared directly with each other. Every turn you approach requires slowing down before hand and then re accelerating afterwards. Your MCS is the slowest speed you reached in the turn.

Minimum Corner Speeds (MPH) & Lap Time

Jonathan Goring Vs. Rodriques [REDACTED]

Lap Time – 1.43.3 vs 1.52.1

Turn 1 – 84 vs. 77

Turn 3 – 71 vs 61

Turn 5 – 72 vs 61

Turn 6 – 72 vs 67

Turn 7 – 48.8 vs 48.3

Turn 10 – 58 vs 51

As you can see, I am quite a bit faster in a lot of areas. These differences in MPH are facts and below we will go through each turn individually and look at why these speeds are so different.

Turn 1

What's Happening:

Your line into turn 1 isn't too bad. You do have a little bit of inconsistency in the sense that you "crab" the entry, which means you're leaving the edge of the road before your turn in point. Ideally, when you turn in sharp for turn 1 you want to make sure you're using all the road on the left.

The biggest thing though is where you're picking up the throttle. Your entry speed isn't too bad, but your minimum corner speed continues to fall because your initial throttle is late and you're late to full

throttle as well. The difference being we slow down almost the same, but you continue to slow and I don't because of my throttle input.

What You Should Do:

There's a small amount of improvement for a lighter brake, however your biggest gains are going to come from getting that initial throttle sooner and staying committed to full throttle. Make it your goal to be full throttle by the apex, and if you get there, at that point is when you begin trying to dial in your entry speed a bit quicker. But we have to see you earlier to INITIAL throttle and FULL throttle.

Turn 3

What's Happening:

Your brake release is a tiny bit quick, but what I'm seeing the most is your initial throttle is very abrupt and sudden, suggesting that the car would take a sooner initial throttle with a gentler squeeze. I'm also seeing that you're turning a little bit early, leaving the left side of the road a little too soon.

What You Should Do:

You're going to make the adjustment beginning as far back as the exit of turn 1. Once you track the car out fully, you're at full throttle up the hill and the car has regained full grip, add a little steering to bring you more center of the track (as oppose to left of center) when going up the steep part of the hill. Then, in Turn 2 which is that gradual left before T3, turn a little later to "square" the car up so that your left side tires meet the left side of the road right at your turn in point. Basically, you'll have a later line in 2, so that you'll be more parallel to the left side of the road when you approach T3. And then, I'd like to see you turn a little bit later for T3. Just think about "squaring off" both 2 and 3 with a little bit later of a line. This way, when you go over that apex curb of 3, you can REALLY open up your hands (taking steering out) as you transition over the curb. By doing this you should be able to pick up initial and full throttle sooner here.

Descending Esses

What's Happening:

You're a little bit "behind the car" here. What I mean by that is that you're turning a little early, lazy and slow and this results in a slightly too early line, which gets worse and worse with each consecutive "S" down the hill. By the time you're at the last "S" down the hill before T5, the car isn't very settled when you go to the brake and you struggle to maintain the right side of the road until the turn in.

What You Should Do:

You go through T3, then there's that long left (T4) and in that FIRST right hand "S" going down the hill, turn a little later, sharper and with quicker hands. This is going to set you up for a later apex approach to all the esses going down the hill. You should late apex all of these as much as you can, because what it means is the car will be more balanced when you go to the brakes for T5.

Turn 5

What's Happening:

You're struggling to maintain the right side of the road until turn in and "crabbing" the entry a bit. As I mentioned previously, a lot of this is due to getting behind the car in the descending esses and not being properly set up for T5. The other thing I see happening is your brake release is very sudden, and it's immediately after your downshift. This suggests that the only reason you're on the brake pedal for as long as your car is to complete the shift. I also see that you're only putting 2 wheels on the exit curb.

What You Should Do:

Your speed here is limited by firstly your line and secondly your downshift. I'd suggest the later apex approach during the descending esses (especially that last left before brake zone of T5.)

I'd also like you to try something that won't immediately make you faster, but I think in the long run it will make you better. Try running 4th gear through T5. You will almost certainly be too low in the RPM at first, but this will give you a chance to practice rolling speed into and through the corner without having to worry about that downshift that's distracting you and causing you to keep your foot on the brake. As you roll more speed through, you also want to begin getting used to tracking out enough so that all 4 wheels are on the exit curb. It will be a bumpy ride, but it's the quicker way to go. As you get faster, 4th gear will come more and more alive the more speed you roll through.

I can barely make 4th gear work through there, so it's likely 3rd will eventually be the way to go. Just understand that it's an art to roll off brake simultaneously while doing the downshift, so this is why I'm suggesting 4th just to make things easier.

Turn 6

What's Happening:

Much like T5, your downshift is the only reason you're hanging on the brake as long as you are. Notice how once you complete the shift; you immediately go back to power? But in a perfect world, without the shift, you would be carrying a lot of entry speed and trail braking all the way to the apex. The only reason you can't do this is because of that shift.

What You Should Do:

Try running 4th gear through here. Again, this isn't going to be optimal for the RPM out of the corner. But, think about how T6 is definitely an entry speed corner as there isn't any straight afterwards. T7 is also an exit speed, "slow in fast out" approach, so there's no real advantage to being fast between 6-7. I think staying in 4th is going to teach you how to roll off the brake sooner, actually get to throttle later (but already be at that higher speed) and encourage you to float speed in while trail braking.

Again, technically if you can get real fancy with your footwork you can go to 3rd and trail the brakes at the same time, but it's very difficult and even when I get this right, I'm in the very top of 3rd gear. Give 4th a try and I think it will make you better in the long run.

Turn 7

What's Happening:

Your speeds are fairly similar to mine here, your turn in point is about the same, and I don't see you adding any steering after apex, so I'm pretty happy with what's happening here. No major red flags. However, I think you can improve in the consistency department as each lap didn't look quite the same.

What You Should Do:

I'd like you to use the end of the entry curb on the left as your reference point for turn in. Now, I believe that the ideal turn in point is about a car length before the end of that entry curb on the left.

I'd also like you to maintain a "9 and 3" hand position on the steering wheel here. In a lot of the corners, you move your hands on the steering wheel in preparation for a turn. This way, your hands are at 9 and 3 once you've turned the steering wheel. The problem with this is you end up grabbing the steering wheel in a slightly different spot each time and don't build muscle memory. Keep your hands at 9 and 3 when the wheel is straight, and don't move your hands on the wheel. Allow your arms to cross when you turn in and go through the corner. Once you get used to this you should have a heightened sense of where your front tires are pointing and develop a better feel over time.

This feedback actually goes for all the turns all the time; however, I'm suggesting it here because T7 is lower speed and less risk for trying something fundamentally new

Turn 10a/b

What's Happening:

I notice you're on the brakes a bit early here and not reaching hard enough brake pressure. Granted I'm on the Hoosier and you're on the Toyo, but you should still be able to get a bit more brake force. My peak brake force for T10 is 1.18 while yours is at 0.87.

Through 10B, I notice you're not taking advantage of the exit curb.

What You Should Do:

Pick the brake point that you're currently at (using the number boards on the right as a reference) and make it your goal to purposefully try and over slow the entry to 10a. Essentially, you're running a drill to see how much you can over slow. Then, move that brake point incrementally later until you've reached your ideal turn in speed.

Once you're at the apex of 10b you can "open up your hands" (steer less) so that you take full advantage of the exit curb on the left. This will enable you to put power down harder and sooner getting a better run out of the corner. You don't want to run 4 wheels on the curb here (like you do in T5) as you'll get wheel spin. 2 wheels will work just fine.

Turn 12

What's Happening:

You're a bit hesitant with throttle here. This corner should eventually be a no brainer full throttle if the track is dry.

What You Should Do:

Make sure those eyes are up, well ahead and on your intended path. Gradually begin doing less of a throttle lift before you turn in, making sure you that when you do turn in you're either at maintenance throttle or increasing throttle.

I know this is a lot to digest and I want to be sure you understand everything that I've said here. Let's arrange a 1 hour phone call at your convenience to go over all this information.

In the mean time, I'd like to invite you to check out my onboard video from Road Atlanta.

<https://www.youtube.com/watch?v=5ApFWyudzZI&feature=youtu.be>

This video from the dash shows a good view of my lines with some of the front running guys in front of me. So you're able to see a lot here!

Jonathan