

NCR2 Track Guides



by: Bill Cranston -- BillC on Hawaii

Contained herein are guides for each of the tracks in Papyrus' NASCAR Racing 2 sim. Each guide has a replay of a qualifying lap to demonstrate the line to take around the particular track. Screen shots from the replays along with text describing my driving style are also included to help you improve your performance. For each track you will also find setup tips and info on how to drive on the inside and outside lines.

The information contained in each track guide is intended to get you on the pole against 100% AI using the stock 96Season car set, and to be able to navigate the track consistently and competitively for the duration of a 50% (or longer) race.

I am by no means an expert driver. If you notice that my advice seems off or my lap speeds are way below yours, then you obviously aren't going to get much out of this except perhaps a good laugh. However, for those just starting off or having trouble at a particular track, this info will hopefully be of some help.

Each track has a page containing the following information:

Track Vitals

Qual. time: The time of the qualifying lap.

Qual. speed: Same thing, except in mph.

Refuel lap: How long you can last on a full tank of gas, which is often longer than your tires will hold out.

Tire lap: The window of laps where you should begin to consider changing your tires, assuming you've run under green throughout.

AI tire lap: The AI's pit window.

Wheel spin: Either "Yes" or "No" to the question "Is wheel spin needed to get out of the pits?" This assumes you've maxed out the field size according to the README.TXT file.

Pit exit speed: A useful number to remember, denoting the speed you should remain under to keep your car below the apron until you reach the opposite straightaway.

All laps were driven under 70° weather, with no wind, starting off with a full tank of gas, with none of the driving aids on. All qualifying laps were driven in a Chevrolet. On tracks with more than 1 qualifying lap, refer to the last lap run since the first lap I use to scrub the tires. Most of the qualifying runs were recorded during either Practice or Warmup under Basic, not Testing, since it seems the lap times only show up under these settings. A single AI car usually sits in the pits while the mock 1 or 2 lap qualifying run is held as a means of verifying that the laps were run with a full tank of gas.

A Lap Around [Trackname]

This section presents several thumbnail screen shots showing key spots around the track during the qualifying run. On an oval, this usually amounts to 5 screen shots: 1 down the front stretch; 1 for the entrance into turns 1 and 3; 1 for the apex of turns 1 and 3. Text accompanies each screen shot to explain the key points, and a replay of the qualifying run that you can download closes out this section. The replay is useful to see exactly what I'm talking about for each track. Make sure you save each replay to

the appropriate track subdirectory.

Track Tips

General advice that covers off various aspects of the particular track. Basically prepares you for what you can expect in a full-field race.

Setup Tips

This section provides some tips on getting a qualifying and race setup together. Since we now have to qualify with a full tank of gas, differences in the two setups are usually slight. The objective of this section is to provide you with the info needed for a setup that will put you on the pole, and one that allows you to drive consistently over a long race.

The setup advice given is geared towards wheel and pedal users. I don't use a joystick anymore so no setup advice for these devices will be provided. Eventually I'll upgrade from my T2 to a TSW, but that's a while in coming.

Since putting up the NCR2 track guides, I've received numerous requests to simply put up the actual setups I use, like I did for the NCR1 track guides. I don't do this for the simple reason that it's a lot better for you to come up with your own setups than it is to blindly use someone else's. I give enough detailed information on each setup component that, if you follow my tips, you're bound to end up with a setup that's pretty close to mine anyways.

The Grooves

This section outlines the different racing lines for each of the tracks except the two road courses (for obvious reasons I hope).

Running in traffic is much easier in NCR2, in large part due to the Spotter. The AI is still very forgiving however, able to maneuver away from all but your wildest moves and thus avoid what would've been a certain wreck. Still, knowing what constitutes the inside and outside lines makes it easier for you to weave your way through the pack and to the front.

Where this info really comes in handy is for online racing against 30 other human drivers. With this comes a need to promote safe driving practices that will allow for competitive and exciting races. Racing against other humans is far different from racing against the AI, so more realistic driving practices need to be followed. This section will help out the Hawaii/NRO newbie who may not be too familiar with what is expected of him/her at each of the tracks. A general description of racing side-by-side particular to each track is given, along with a replay each of the inside and outside lines.

Click on a link below to view a particular track guide.

Track Guides

Track	Date Posted	Date Revised
<u>Atlanta</u>	Jan. 18, '97	Apr. 30, '97
<u>Bristol</u>	Jan. 12, '97	Aug. 3, '97
<u>Charlotte</u>	Apr. 30, '97	--
<u>Darlington</u>	Dec. 29, '96	--

Dover Downs	Feb. 24, '97	--
Loudon	n/a	
Martinsville	Dec. 29, '96	Mar. 22, '97
Michigan	Feb. 10, '97	Apr. 30, '97
N. Wilkesboro	Dec. 24, '96	June 26, '97
Phoenix	Jan. 16, '97	--
Pocono	Aug. 4, '97	
Richmond	Mar. 4, '97	May 14, '97
Rockingham	Jan. 13, '97	June 26, '97
Sears Point	Jan. 24, '97	--
Talladega	Jan. 3, '97	--
Watkins Glen	Apr. 1, '97	--



Feel free to send me any comments you may have.



Click button to return to front page.

Track Vitals

Qual. time: 29.880sec.

Qual. speed: 183.374mph

Refuel lap: 55-60

Tire lap: 45-50

AI tire lap: 47-53

Wheel spin: No

Pit exit speed: 120mph

A Lap Around Atlanta



When qualifying, it's very important that you make a wide run through turns 3&4, and that at no time leading up to the timed lap do you get loose. You need to be over 180mph by the time you pass the pit wall coming out of turn 4 so that you can cross the finish line at 190+mph. Here I'm at 191mph.



Top speed down the front straight will be just a few mph under 200mph, usually ranging from 196-198mph. I've reached 197mph before lifting off the gas into turn 1.



You should never have to use the brakes when you're not in traffic. You slow for the turns simply by lifting and letting your tires scrub off your speed. Try and keep your speed over 175mph throughout the turn, accelerating as soon as your car gets settled along the apron. I've slowed down to 176mph before picking it back up again. I'm a bit wider around the turn that I'd like.



Nothing different down the back straightaway, with me topping out at 195mph into turn 3. If I was a bit closer to the apron through turn 1, I'd be able to get on the gas a shade sooner through turn 2, possibly reaching 196-97mph at the end of the back straightaway.



For whatever reason, the AI seems to run through turn 3 a mph or two slower than it does through turn 1, though there's no difference in the turns. I've slowed to 177mph here, maintaining a good line along the apron. This is what got me a decent lap (by my standards at least).



Click button to download a replay of this qualifying run (13kb).

Track Tips

Atlanta is a favourite among the superspeedway crowd - speeds are very high yet things are kept interesting with corners that go on forever, demanding a well-behaved setup. The combination of high speeds and fast turns make for some great racing.

Nim Cross mentioned at one time in the *rec.autos.simulators* newsgroup that Atlanta is one of the "setup" tracks, meaning that it's not a track that demands much skill to run, but does need a fast setup in order to be competitive. I couldn't agree more - if you lack a good setup, you won't be near the front no matter how consistent a driver you are.

As mentioned above, the unique aspect of Atlanta are the deep turns. This should be your focus when you're cobbling together a setup - don't worry so much about straightaway speed if you're not going through the corners comfortably. You should lift after reaching top speed down the straightaways. Steer into the turns and let the tires scrub off your speed as you drop down to the apron. When you reach 175-178mph, get back on the gas again and you should be humming around the bottom of the track. The *Setup Tips* section below will hopefully lead you to a setup that is both fast and well-behaved.

The AI is a lot of fun to race against, though the problem with giving up too easily when 2-wide into the turns still persists at this track. Despite what the manual says, I find the fastest line is one that is right along the apron. There does seem to be a slight difference in the banking, though nothing as noticeable as around the apron at Darlington. The AI takes a higher line through the turns, which provides you an avenue to set up a pass on the inside coming out of turns 2 and 4.

The AI is very fast at 100% at Atlanta, especially the faster AI cars that turn 29.5 second laps. I've yet to come up with a race setup that can keep up with Earnhardt & Co. on a full tank of gas. The fastest lap I've run was a 29.712 second effort while drafting down the straightaways. Even if you're able to draft consistently lap after lap, this pace will still fall short and will keep you out of the top 5. The replay of the qualifying run here will get you on the pole 99% of the time, since the AI usually qualifies in the 29.89-29.91 range, and the replay is of a 28.880 second run. In a race I may be able to hold onto the lead for several laps, but eventually have to give up the lead and the next 5 positions or so as the lead pack finally has its way with me.

Setup Tips

The qualifying setup I use is fairly loose leading up to the timed lap, but does settle down nicely once you get up to speed. It's fairly easy to turn sub-29.9 second laps during qualifying if you manage to get across the finish line over 190mph. My race setup is another story altogether, clearly not fast enough to keep up with the top 5, though I can usually linger in 8-10th spot for most of the race. The setup advice below will lead you to a setup that is able to run consistent sub-30 second laps for the first 30 laps, and for the first 20 laps or so sub 29.9 second laps, but after that I start trailing away before having to pit by lap 50. Preserving my tires isn't an option either - they're squealing a fair bit into turns 1 and 3 to slow down. I basically run Atlanta flat out with minimal regard for my tires. From lap 40 onwards my lap times range from 30.4-30.8 seconds, while the faster AI cars will still be turning 30.0 second laps.

Tire pressure

Tires pressures are set at 52psi for both the LF and RF tires, slightly slower for the LR and RR tires. Using these settings, the RF tires will turn yellow after 32 laps during a flat-out green flag run, and will turn red on lap 43. The RR turns yellow on lap 39. For a qualifying setup I set the psi higher all around.

Shocks

I set the right side shocks the same, fairly stiff at around 95%. The LF shock is set the same as the right side, with the LR set a bit softer. The shocks are maxed out completely for a qualifying setup.

Everything else

Camber settings are set so that the inner and outer temps match, which isn't the case with the stock ACE setup. I use minimal rear spoiler and 8° wheel lock, slightly more rear bias than the ACE setup, plus a fair bit of cross weight to keep things secured around the turns. For a qualifying setup, I drop the rear spoiler all the way down.

4th gear is set at 3.8 for qualifying, and 3.6 for a race setup. A 3.7 setting will lead to a loss of oil pressure and subsequent engine failure by lap 120 or so.

The Grooves

Just because you can do something, doesn't mean you should. This applies to running 2-wide around Atlanta - it's fairly straightforward but you'll lose a fair chunk of time doing so. Both lines are fairly hard to keep, given the high speeds through the turns and the tendency for setups to be on the loose side. If you're going to get alongside someone, make sure it's on their inside, since this is the easier line to run at Atlanta. I find I lose 2-3 tenths of a second when running either line. The inside line here was run in 30.005 seconds, with the outside line trailing by 0.193 seconds.

The inside line

It's real easy to come in too hot into turns 1&3, since your angle is sharper and you're carrying a lot of speed. There are also not very many visual reference points to guide you, though gauging your distance from the apron is usually enough. Line up your entry so that you drop down within a car width of the apron - the closer the better. This should put you beneath the main band of skidmarks. You shouldn't have to drop below 172-175mph, depending on how good your entry was, but you will likely have to brake some in order to get your speed down on time.

Exit out of turn 2 so that you straighten out down the middle of the straightaway. You should be able to accelerate up to 195mph or so. It's best not to try and eke out an extra mph down the straightaway only to find out you're heading into the turn too hot. Play it safe and top out conservatively.

Turn 3 is a mirror image of turn 1. You'll notice in the *n2atlin* replay that I swung very wide through turn 3. Normally I'd redo such a lap but I'm too lazy at the moment and I the outside line I did was also terribly wide at this point, so I know the two cars don't touch. What is it about turn 3 and me? Anyhow, keep your speed between 173-175mph and as close to the apron as you can. The inside line is basically one full car length from the apron up the track so don't exceed this distance like I did.

Same deal here too as with turn 2.

The outside line

The outside line isn't where you want to get caught, since you have more track to run and it's tough to keep your speed up to make up this extra distance. Aim your entry into turn 1 so that you're running through the main band of skidmarks, or basically one car length or so up off the apron. You should be able to keep your speed up around 175mph through the turns.

Exit turn 2 by following the skidmarks out so that you drift up to the wall. Be careful not to gas it too soon, or you'll need to check up to avoid scraping the wall before you fully straighten out. Top speeds can reach 200mph if you come out of the turn well.

Well, I really messed turn 3 up. I tried to squeeze out an extra mph or two and ended up paying for it by swinging up close to the wall. You should run through turn 3 in the exact same fashion as turn 1, by staying within the skidmarks a fixed distance from the apron, with speeds varying just on the high side of 175mph.

Same story around turn 4 as with turn 2. I was able to get a good jump out of here since I came around turn 3 so wide. Top speed down the front straightaway is the same, 195-200mph.



Click button to receive replay file of the inside line (3kb).



Click button to receive replay file of the outside line (3kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Atlanta with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

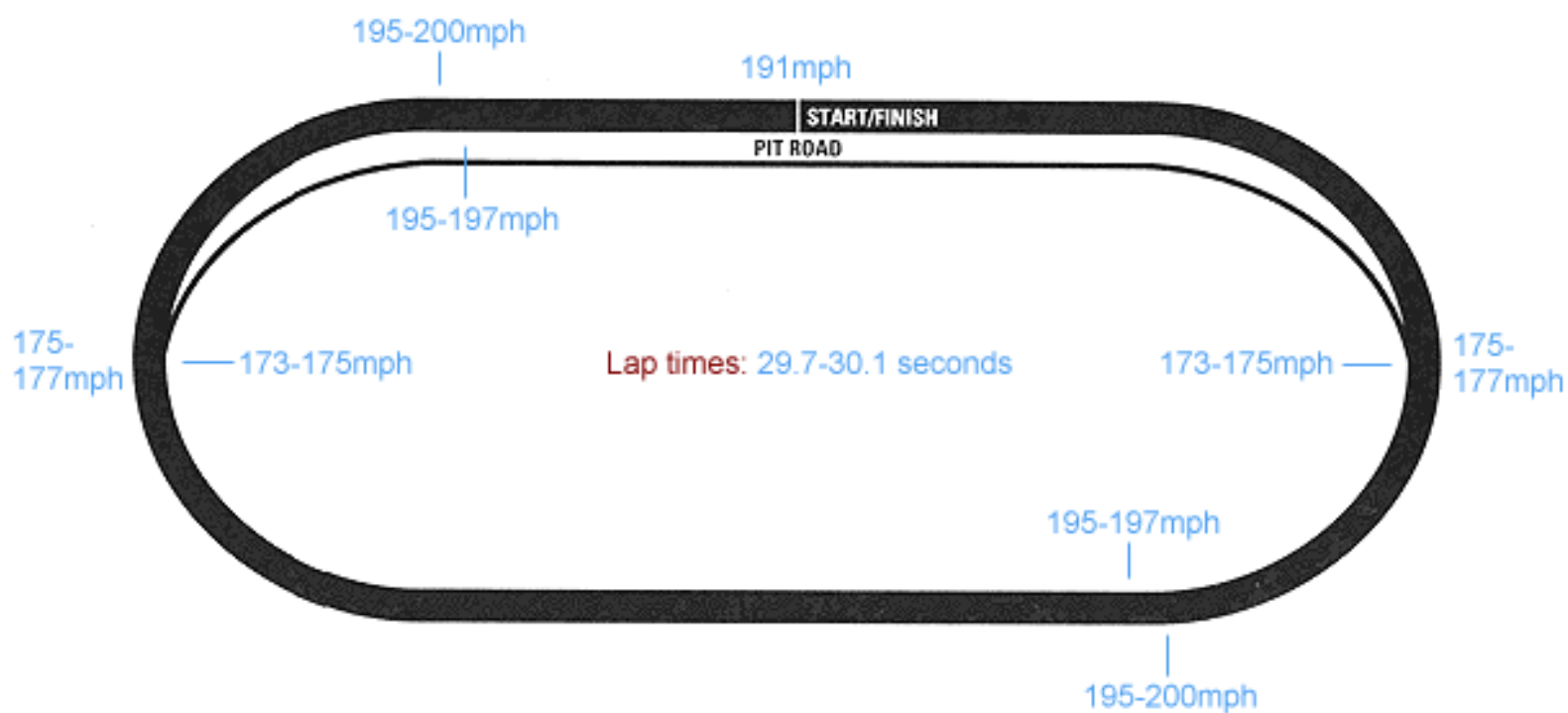


Click button to return to Setups page.



Click button to return to front page.

ATLANTA



Bristol



Track Vitals

Qual. time: 15.527sec.

Qual. speed: 123.578mph

Refuel lap: 140

Tire lap: 90-100, or lap 140

AI tire lap: 78-87

Wheel spin: Yes

Pit exit speed: 80mph

A Lap Around Bristol



Tripping the wire at 142mph. Remember to use the first of the two qualifying laps to scrub as much heat into your tires as possible and to take turns 3 and 4 wide so that you get a straighter run to the line for your last lap.



Reaching 147mph for just a nano-second before braking hard into turn 1. Make your turn a shade before braking - I find this helps to get you down to the apron more easily each lap.



Humming along at 115mph. You'll need to maintain a steady speed for a second or so before getting back on the gas again, at least with my setup. I find when I get too anxious I only end up flaring wide out of the turns.



Topping out at 141mph down the back straightaway. You'll never reach as high a speed at this point since you didn't take turns 1 and 2 intentionally wide like you did to start off the lap.



I didn't get down as close to the apron as I'd like through turn 3, but I manage to sustain a slightly faster speed than normal at 117mph. Still, the lap would've been faster had I gone a bit slower and closer to the apron.



Click button to download a replay of this qualifying run (11kb).

Track Tips

Welcome to NASCAR's mosh pit - Bristol International Raceway. Bristol is fast, furious and frenetic, which is probably why it's my favourite track. Nothing is ever locked up here, since anything can happen anywhere at anytime and you're never far-removed on a half-mile oval.

To me, Bristol is the hardest of the 16 tracks to qualify for, since it's so easy to make a slight error into a turn and you have absolutely no time in which to make up this slip. I find I'm just as likely to post a 15.5x second lap as I am a 15.7 second lap during qualifying, which is a large gap over such a short distance. The fastest line is down on the apron - right on it. In fact, if you can get your left sides straddling over the yellow line, even better! Sacrificing 1mph or so around the turns is a good idea if this will get you to the bottom of the track.

You're never free of traffic at Bristol, with cars constantly in front or behind you demanding your attention at all times. Bristol on it's own is an easy track to run, but the traffic makes it as tough as Darlington to run in my opinion, exacting a premium for patience lest you get too aggressive and punt the AI up into the wall.

Forget saving your tires. There's nothing much you can do to prevent your right-sides from running in the yellow all race long. In NCR1 the right side tires ran in the red quite a bit as well, but this shouldn't be the case in NCR2 - they should stay in the 230° range.

If, when heading into a turn, you don't have more than you're nose on a car to your outside, ease up on any planned pass. Most of the AI cars will assume they have the line and cut down on you. To me it seems you need to get past their quarterpanel to get them to recognize you going into a turn, and then they'll check up quite noticeably to let you by. The AI will also not drift up to provide you more room if you happen to wedge yourself underneath another car through a turn. The *n2bris-p* replay below provides a brief example of this point. The car I was driving will be the car that has the paint scheme of the first driver on your drivers list in NCR2.

The replay of the qualifying run above will get you on the pole easily, as the faster AI drivers clock 15.6x second efforts. Getting a low 15-5sec. lap is pretty hard I think, with low 15.6sec. laps more common. If you do start on the pole, you'll begin to lap the field by lap 20 or so. The AI isn't particularly challenging here in terms of speed, with hotlaps in the vicinity of 15.4 seconds, but speed doesn't mean much at Bristol. How you handle the traffic will determine how well you finish. The AI isn't particularly adept at passing slower cars, so if you manage to put a lapped car between you and Earnhardt & Co., you can expect smooth sailing for quite some time. I would increase the AI's pit window a bit, say to 90-110 or so, as well as increase the RELS to 108.



Click button to download a replay of the pass into a turn mentioned above (27kb).

Setup Tips

The setup advice here should get you a qualifying setup that has enough punch to generate some speed down the straightaways (which are about as long as most driveways), and be easy enough to get around the turns at the bottom of the track. A race setup won't have as much pickup, if only because the 4th gear will be set taller, but it should be much more stable to ride high and low through the turns. The most important feature of a setup here at Bristol is one that won't come loose as you're powering out of a turn. When this happens it bleeds away any speed you had hoped of generating down the straightaway. The race setup tips below should result in consistent 15.5sec. laps over 70 laps during a practice session, trailing away slowly to 15.8sec. laps by the time you run out of fuel. The setup is a bit loose out of the turns for the first 20 laps or so, after which you're times will hover on either side of 15.0sec., depending on how consistent you are.

Tire pressure

The right side tire pressure is set to 50psi for the RR and a bit softer for the RF. The left sides are set the opposite to keep the car stable accelerating out of the turns. The difference in pressure between the LF and LR is more pronounced in my qualifying setup. Tire wear is very even - the rear tires during a race get the most wear, with the LR suffering the most wear oddly enough. The LR turns yellow on lap 85, the RR on lap 87, the RF turns yellow on lap 91 and the LF turns yellow on lap 108. Except for the LF, all tires will turn red between laps 115-125 if you decide to stay out until you run out of fuel.

Shocks

For a race setup, the right-side shocks are both set at 55%. The LR is set softer and the LF is set much stiffer than the rest. The right-side shocks are set stiffer for qualifying, with the LR set stiffer than the RF. The LF shock is set at 100% and the LR set all the way down to 5%, allowing you to gas it on cold tires once you reach the apex and not have to worry about your rear end coming around to say hi.

Everything else

I shift through the turns during a race, but tend to focus on making a good entry into the turns during qualifying and keep thing in 4th until coming out of the turns 2 and 4. For this I use a 5.5 3rd and a 5.3 4th gear, and for a long race I use a 5.4 3rd and a 4.9 4th gear.

I'm comfortable with a rear bias setting of around 49%. I don't use any cross weight for qualifying, but do add some for a race setup. I set wheel lock at 9°. In order to get some decent acceleration out of a setup, I set my rear spoiler pretty far down for qualifying. If you have your other setup elements adjusted right, your car should be well behaved even with the limited downforce provided by the rear spoiler. I have camber set so that tire temps are even across the front.

The Grooves

Running Bristol alone isn't much of a problem, but adding a second car to the mix complicates things quite a bit. It's quite easy to take a turn wide coming in, or sliding up too early coming out of a turn, and both spells disaster with a car on your outside. The AI is quite enjoyable to race against here I find. It's still too timid at times heading into a turn 2-wide but on the whole it's a far better experience than it was in NCR1. Good lap times around Bristol range between 15.3-15.5 seconds. I find I have to slow to 15.6-15.7 seconds when on the inside or outside of another car. The replay of the inside line is a 15.615 second lap while the outside line was turned in 15.671 seconds.

The inside line

The inside is tough to handle, since you'll be heading into the turns very sharply. As you head into turn 1, you'll need to slow to 110-115mph and you must keep your left side tires right down on the yellow line. Stay off the gas longer than usual so that you don't start drifting up as you reach the apex, and maintain a speed between 110-115mph. I define the inside line as the heavier concentration of skid marks around the apron. You'll notice in the *n2briin* replay that my left side tires are running down on the apron, which is a bit lower than you have to go but it ensures you're not going to bump into a car on your right.

When you exit turn 2, you need to remember that you can't come out too quickly - you have to be right down on the apron longer than usual. Plan your exit so that you straighten out into the middle of the back straightaway. Accelerate down the back straightaway to 140mph. Don't accelerate to anymore than this, or you'll really have to stand on the brakes to keep yourself down on the apron with the sharp angle you enter the turn at.

The handling of turn 3 is a mirror image of turn 1 - right down along the apron. For some reason my weakest point around an oval is always around turn 3. In the *n2briout* replay you'll note I swung wide around turn 3 before finally getting myself down near the apron. If a utility ever becomes available to superimpose replays in NCR2, I'm sure you'll find that I would bump a car on my outside at this spot on the track.

Exiting turn 4 is again done the exact same way as the first half of the track, by staying low out of the turn and drifting up no farther than the middle of the front straightaway. Top speed is again around 140mph.

The outside line

I think the outside line is tougher than the inside line, since the turns here are so narrow. You really don't have much room to work with.

Coming into turn 1 you'll be along the wall. Aim your entry so that you round the turn on the outside of the main concentration of skid marks around the turn. "Main concentration?", what on earth does that mean? Well, it's difficult to describe so all I can say is refer to the *n2briout* replay. You should be able to keep your speed up around 115-118mph or so.

Your main concern exiting turn 2 will be the wall coming up to you. As with the inside line, be sure not to step on the gas too soon, or you may have to check up later to avoid hitting the wall. You exit the turn in the middle of the straightaway and drift up to the wall fairly quickly. Top speed down the straightaway on the outside line is 145mph or so. You'll notice that I dropped down through turn 2 just a bit. I'd probably be spun out to the wall if the car on the inside wasn't running right along the apron.

Same deal in turn 3 as with turn 1. Be careful not to come in too hot since you really don't have much room to swing wide on the outside, the track being so narrow. If you do come in too fast, you'll have to scrub off too much speed to avoid scraping the wall and you won't have enough track left to catch the car on the inside.

Again, nothing different from turn 2.



Click button to receive replay file of the inside line (2kb).



Click button to receive replay file of the outside line (2kb).



Click button to receive replay file of both lines superimposed (3kb).



Click button to view an overhead map of Bristol with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

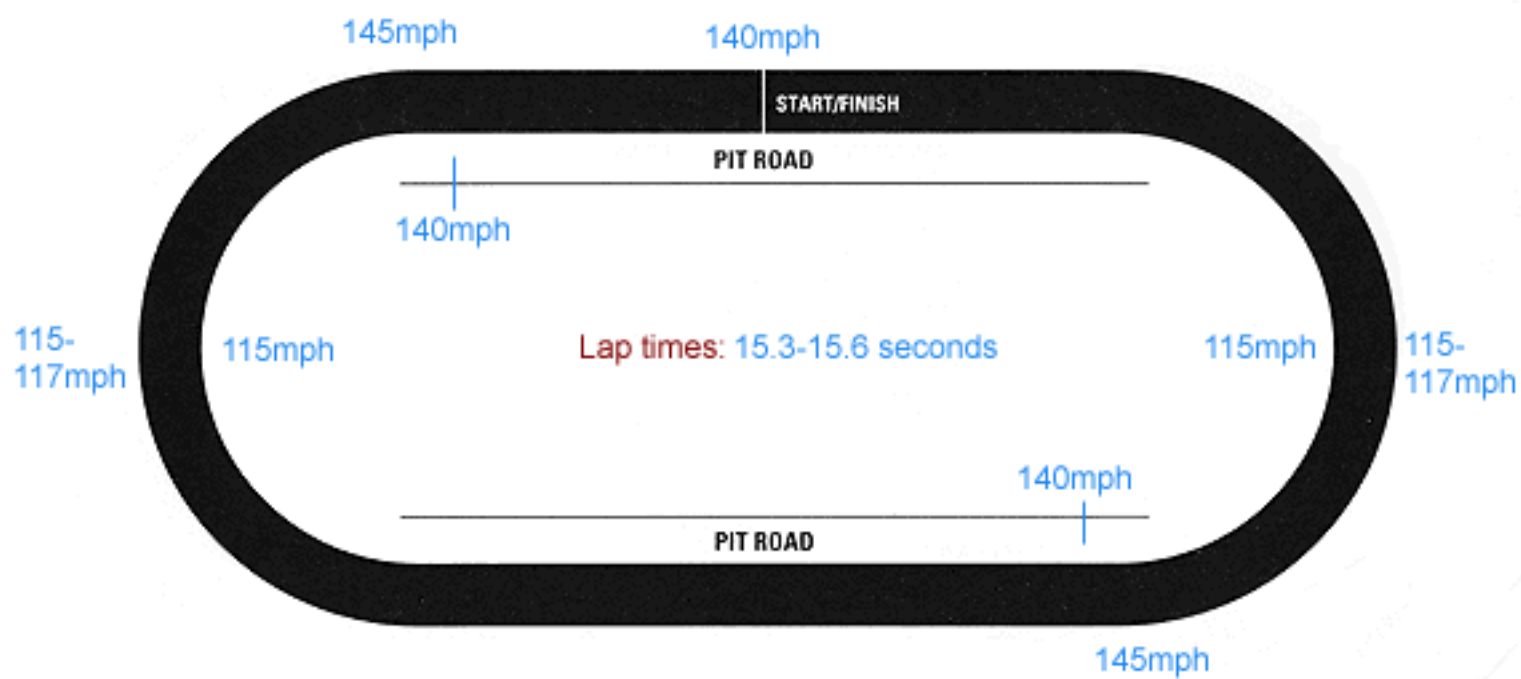


Click button to return to Setups page.



Click button to return to front page.

BRISTOL



Charlotte



Track Vitals

Qual. time: 29.867sec.

Qual. speed: 180.801mph

Refuel lap: 60-64

Tire lap: 60-64

AI tire lap: 60-67

Wheel spin: Yes

Pit exit speed: 105-110mph

A Lap Around Charlotte



Crossing the start/finish line at 189mph. You should normally be in the 3rd lane here, one down from the outer wall, but I took things a bit wide on the warmup lap.



Fastest point of a lap is just before heading into turn 1. Here I'm at 196mph and haven't quite straightened out from the 2nd dogleg yet. Minimal braking is required to get yourself turned around as you head into turn 1. You shouldn't drift out to the outer lane before heading into turn 1 either, or you'll have to brake more to come all the way back down to the apron.



Slowing down to 169mph through turn 1. I could've been a bit closer to the apron through this part. Oh well. I didn't get as good a kick out of turn 2 either.



As a result, I only topped out at 191mph down the back straightaway. An extra mph or 2 would've been nice. As with turn 1, you don't need to brake much if at all for turn 3.



Running through turn 3 at a healthy 174mph. The manual says to run turn 3 a fair bit off the apron, but I find the extra distance travelled too much to overcome, so I prefer a line right down on the apron. Keep turning as you come out of turn 4, or you'll risk swinging high through one of the doglegs and possibly scrape the wall.



Click button to download a replay of this qualifying run (12kb).

Track Tips

Charlotte! Whoowee what a fun track this is! Charlotte's real fast, but being a D-shaped oval means you're spending much of your time turning left. The only "break" you have is the back straight out of turn 2. Since NCR2's release, I've become a big fan of just about every track, no longer just a Bristol fanatic though still despising Talladega. Charlotte is just about the most fun you can have at a race track, offering plenty of high speed action while still being real easy to race side-by-side absolutely anywhere. The unique characteristic of Charlotte is, of course, the front straightaway, consisting of 2 doglegs. Charlotte was remodelled in NCR2, resulting in a slightly longer stretch between each of the doglegs on either side of the start/finish line, and a shorter approach out of turn 4 and into turn 1 (at least this is how it appears to me). The exit out of turns 2&4 also seem more gradual. Also changed is the severity in the change of banking between the track and the apron. You're no longer immediately at risk of sliding back up the track if you catch your left side tires down on the apron, though it is a good idea to refrain from accelerating in such a situation.

The combination of the changes above result in a line down the front stretch that shouldn't have you drifting up to the wall at any point, in contrast to NCR1. The more gradual line out of turn 4 will have you turning into the first dogleg from the 3rd lane, the longer stretch between the doglegs allows you to keep a line closer to the apron all the way around, and the shorter stretch of track into turn 1 doesn't allow you to drift all the way up to the wall from the last dogleg without forcing you to slow too much to get back down for turn 1. You will have to stay up along the wall if you're on the outside of someone of course, but the race line down the front straightaway to me will have you in the 3rd lane, one lane in from the outside wall.

Races against the AI are more fun here than at other NCR2 tracks, if only because the AI doesn't give up as easily into the turns. The AI does take a rather high line down the front straightaway so it is usually a simple matter of dipping underneath anywhere through the doglegs to gain a position. Another good place to pass is as you come out of turn 2, or further down the long back straightaway by benefit of the draft.

Charlotte is one of those tracks where you'll be looking to bump up both the default RELS and BLAP values to make things more competitive against 100% AI. At the default settings the AI does no better than 30.1sec. qualifying runs and 29.9-30.0 hotlaps during a race. You'll be able to qualify on the pole everytime and stay ahead of the pack for the duration of the race under these settings, which makes a race a bit of a yawner. Usually after the first lap you'll find yourself with a 2sec. lead. Bump up the RELS a notch and the BLAP down to where the AI tops out at 29.8 seconds in qualifying to avoid falling asleep.

Setup Tips

The advice below will lead you to a setup that will last a full fuel run, which is 64 laps if no yellow flags pop up. Over the first 35 laps you should be able to maintain 29.7-29.9sec. laps, gradually trailing off to 30.5sec. efforts by lap 60+. Around lap 40 you'll have to slow to 165mph through the turns, and by lap 60 you'll probably find yourself slowing to 160mph through turn 1 to stick the apron. The RF tire turns yellow on lap 39, red on lap 53, and the RR turns yellow on lap 44.

Tire pressure

Right side tire pressure setting is 52 for both RF and RR. LR is set a bit stiffer, with the LF stiffer still. Tire pressures are set higher all around for a qualifying setup.

Shocks

Shocks are maxed out for qualifying and race setups. I haven't tried softening the shocks all around for a race setup yet, so if you find there isn't a decline in the speeds you can turn, perhaps this would be a better option since it'll slow the rate of wear on your tires.

Everything else

Camber is set at -2.70 and 0.40, producing even tire temps. 3rd and 4th gears are set at 4.4 and 3.6 respectively. I use a 3.8 4th gear for qualifying. If you want to last over 100% races, a 3.5 4th gear would serve you better. Rear weight is around 1820lbs for a race setup, 1830-1840lbs for a qualifying setup. I set a fair amount of positive cross weight, slightly more for a qualifying setup. Wheel lock is a modest 8° and the rear spoiler is set a fair ways down, lower still for a qualifying setup.

The Grooves

Charlotte's a cinch to run side-by-side, as most of the NCR2 tracks are that have the lane markers laid out. The lane markers help keep you in place right around the track, though their absence in the corners makes it easy to enter turns 1&3 wide from the outside line. The easier and faster line to keep is certainly the inside line, since it's difficult to overcome the extra distance travelled on the outside line. The threat of scraping the wall is also very real through the doglegs on the outside line. The laps provided here are of 29.930 and 30.122 seconds for the inside and outside lines respectively.

The inside line

This is the preferred line. Aim your entry into turn 1 so that you follow the band of skid marks down to the apron. You'll be heading into turn 1 from the 3rd lane down the front straightaway so your approach will be exactly the same as if you had the track to yourself. Stay as low to the apron as you can, keeping your speed around 165-170mph as you do. You need to be within a car width from the apron or you'll risk bumping the car on your outside.

Exit turn 2 so that you hit the back straightaway in the 2nd lane, between the 1st and 2nd lane markers, before drifting up into the 3rd lane. You'll have to stay off the gas a shade longer through turn 2 when you're on the inside of someone or you'll likely pinch the other driver. Top speed down the back straightaway isn't much over 190mph.

There isn't much to guide you into turn 3, but basically lift off the gas and follow what skid marks there are right down to the apron. It's hard to explain any better than this, so all I can say is have a look at the *n2chain* replay to see what I'm talking about. Speeds don't need to drop below 170mph through here. Turn 4 isn't nearly as much of a menace as it was in NCR1. Again, stay off the gas a bit longer than you normally would, since you'll be entering back onto the front straight in the 2nd lane, just as you did in turn 2. What you **won't** be doing is drifting up to the 3rd lane at any point on the front straightaway until you exit the final dogleg. Keep turning left the moment you exit turn 4 so that you cross over each "kink" right down along the apron. Top speed down at the end of the front straightaway is around 195mph, and you'll be somewhere in between the 2nd and 3rd lane.

The outside line

This is the tougher line to keep, since you have a longer distance to travel, putting a premium on nailing your turns just right so that you can keep your speed up. You can also come pretty close to scraping the wall down the front straightaway if you're not careful.

There's very little in the way of visual cues to guide you down through turn 1 from the outside line, so all I can say here is note where the concentration of skid marks are down by the apron and make sure you **don't** drop down this far. Basically plot your entry into turn 1 so that you remain about a car length above the apron. You'll note from the *n2chaout* replay that I drift up a fair amount all the way around turn 1 before getting my act together in turn 2. I slow all the way to 170mph.

Exit turn 2 so that you follow the skid marks into the 3rd lane on the back straightaway before drifting up along the outer wall. Top speed down the back straightaway is around 195mph.

Turn 3 is easier to handle to me, but again there isn't much to guide you in by. Check the *n2cha...* well, you know what I was going to say. You can carry speeds of around 175mph through this part if you don't swing up too high.

Exiting turn 4 is a lot easier than it was in NCR1. Stay above the skid marks and line up your entry onto the front straightaway in the 3rd lane. Keep turning left so that you're able to cross over the "kinks" in the doglegs 1 lane above the apron, between the 1st and 2nd lane markers. You'll end up drifting up to the 3rd lane down most of the front straightaway, until you exit the last dogleg and drift up to the outer wall before slowing for turn 1. For me, top speeds can reach 198mph at this point.



Click button to receive replay file of the inside line (3kb).



Click button to receive replay file of the outside line (3kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Charlotte with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

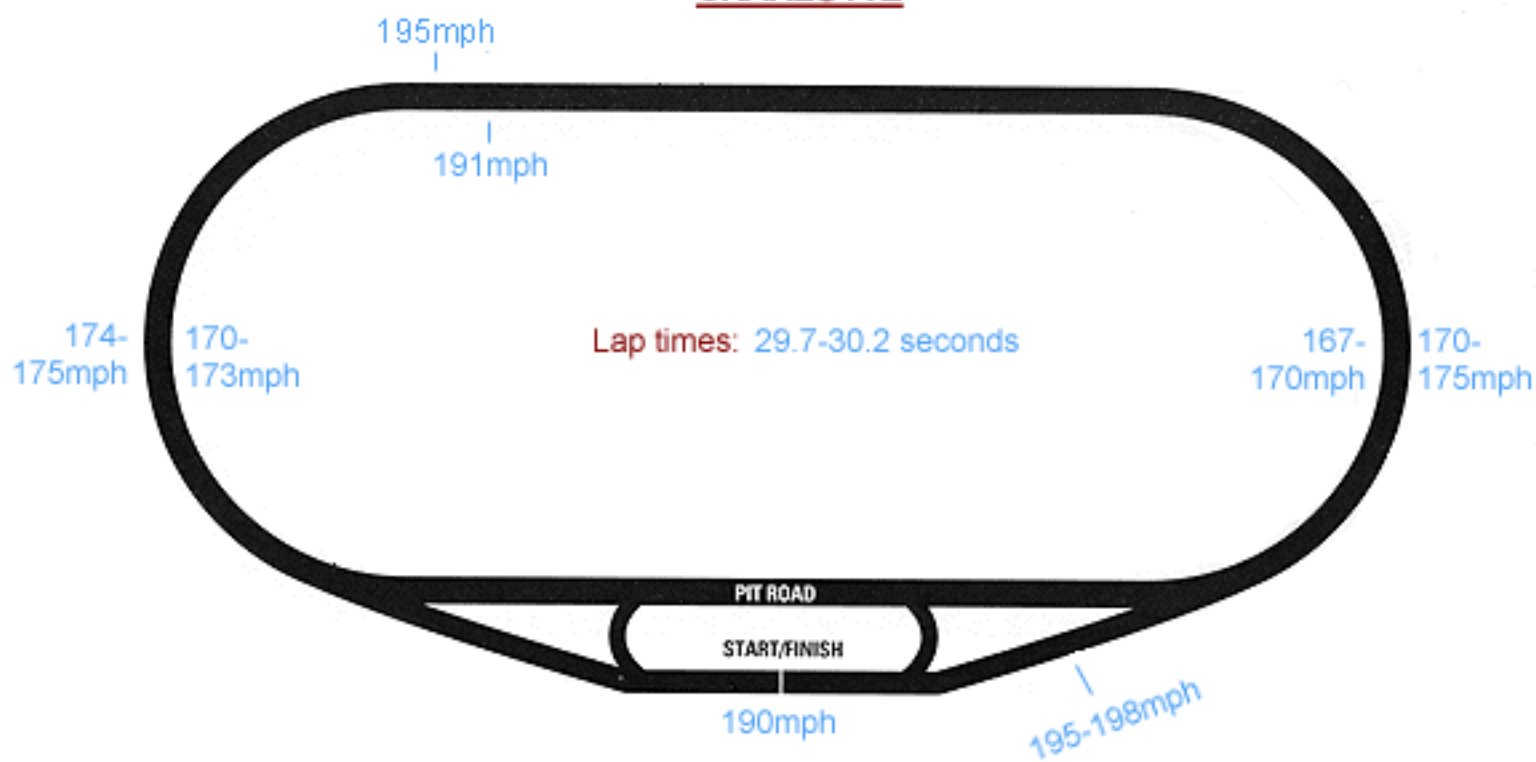


Click button to return to Setups page.



Click button to return to front page.

CHARLOTTE



Darlington



Track Vitals

Qual. time: 29.689sec.

Qual. speed: 165.637mph

Refuel lap: 65-70

Tire lap: 60-65

AI tire lap: 60-66

Wheel spin: No

Pit exit speed: 90-95mph

A Lap Around Darlington



Streaking down the front straightaway at 183mph. A good benchmark at the finish line is 180mph or better.



This is for all the marbles, the handling of turn 1. I've topped out here at 192mph. I don't try and exceed 190mph normally, instead focusing on a smooth, fast entry into turn 1. This is the most important, and for me, difficult, part of the track. Too hot going in and you'll either scrub off a lot of speed or swing up high and into the wall.



The brakes are on hard until you slow to 145mph or so. It's important to have a setup that handles smooth when you're braking into turn 1, since you decelerate quickly into a very tight turn. Otherwise your front end will shake all over the place as you fight to straighten out your car around turn 1. It's tight enough around here without have to worry about a mis-behaving setup.

Exiting turn 2 at 155mph, staying just above the flatter section of track.



Whew! Made it out of turns 1/2 alive. Top speed down the backstretch is 184mph before braking into turn 3. Things are easy here on out to the finish line, or are they?...



Handling your entry into turn 3 is a whole lot easier than into turn 1, since the turn is more gradual and steeply banked. You don't want to drop below 155mph. Here I'm at 158mph. You have to carry your speed for a while around turn 3 and 4 before stepping back on the gas again.



Exiting turn 4 at 162 mph. This is the second-most difficult area of the track. Remember that turns 3/4 form the butt-end of the egg so turn 4 carries on for a bit longer than usual, actually bending in some before straightening out. This requires you to stay off the gas for a shade longer than normal.



Click button to download a replay of this qualifying run (12kb).

Track Tips

"The Lady in Black" - Whoowee, ain't she a beauty now! A little nip and tuck and who'd recognize this killer layout for what served as our Darlin' in NCR1? Darlington was never easy before, and it's gotten a whole lot tougher now, thanks to the remodelled track layout.

What makes Darlington difficult? Gee, where do I begin? Darlington is difficult because of its unique shape, a narrow front end and a wider back end. This makes for different handling of each of the 4 turns. Combine with this a very narrow racing line and you have an oval that is mighty tough to survive. Benchmarks around Darlington are about 10mph slower than the unrealistic NCR1 version. Forget about barrelling into turn 3 full throttle.

Darlington's a tough track to get used to, because the apron now extends so far up the track. The banking drops off about a foot up from the white line, so keeping your left-sides along the line is quite treacherous. You can cobble a setup together that gets you through the turns quickly but will get thrown back up the track too easily the moment your LF tire drops to the shallower banking. During a race, it's important to have a setup that can skirt around the shallower banking without washing up the track, or breaking loose should both your LF and LR tires drop to the apron.

Another difficult element of Darlington is the different handling required into turns 1 and 3. You need to stomp on the brakes as hard as you can into turn 1, getting your car down near the apron. The rapid transfer of weight back to the front of the car will cause all kinds of problems if your setup isn't stiff enough. Turn 3 is a whole lot easier, offering a brief moment of sanity around this crazy oval.

Be careful not to approach either turn too low on the straightaway, however. If you catch your left-sides on the shallower banking coming in to either turn, you risk sliding up into the wall as you try turning at speed. Suddenly sliding up into the steeper banking could also throw your car loose.

The last bit of danger is the handling of turn 4. Turn 2 opens up nice and easy, but turn 4 takes a while to come to an end, because of the track's unique shape. If you're not careful, you'll be tempted to step on the gas too early, only to find yourself being pushed up from the shallower apron and into the turn 4 wall. Ouch!

A good lap will have you humming down the straightaways up tight against the wall, coming down quickly and smoothly to just above the apron. You should be looking to exit both turns 2 and 4 by cutting down onto the flatter portion of track, along the white line.

If you don't qualify in the top 5, you can expect to lose ground to the leaders since you have to be so careful and patient in traffic around Darlington. If you are out front you can expect to begin lapping the field by lap 20-25. The AI doesn't pass very aggressively at Darlington, and will check up noticeably if you get underneath an AI car into turns 1 and 3. Pay attention to where damaged cars are on the track, since they will slow down the entire field. The AI is still not aggressive enough around damaged AI cars.

The attached 29.689sec qualifying run should get you on the pole with room to spare. The AI at 100% qualifies at 30.0sec and its best lap times will also be in the neighbourhood of 30.0sec. You'll note in the replay that I came down around turn 4 a bit too soon, forcing me to stay off the gas a bit longer.

Setup Tips

The advice below should lead you to a stable setup around Darlington. It handles the turns smoothly and can handle running on the flatter apron without undue risk of breaking loose. Hey, it's also pretty fast! You should be able to turn sub-30sec laps for around 40 laps, and the RF tire will turn yellow by lap 45 or so.

Tire pressure

All my tires are set to 51psi. I set my LR a bit higher to exit the turns a bit faster. Alternatively you can play with the shocks.

Shocks

I find that a stiff set of shocks on the right side, and a stiffer LF shock relative to the LR works best for me. For a qualifying setup I keep the RR as stiff as the RF, though soften it some for a race setup.

Everything else

Set your camber so that you have even tire temps across the tire surface, though you may want to adjust the RF camber out more to make turning in a bit easier. I set the rear spoiler down quite a bit, in order to get as much speed built up as possible down the straightaways.

Gearing should be a 3.8 4th gear. For qualifying I use a 3.9 4th gear. I have the weight set more to the rear and, as with all non-road course setups, 54.2% leftside bias. Wheel lock is strictly personal preference, and I have it set at 10°. To keep the car stable through the turns, I also crank up the cross weight quite a bit. Work on every other component of your setup first before turning to cross weight adjustments.

The Grooves

I'd just as soon check up around a turn than force myself onto the outside of someone. Running an inside line isn't so bad around Darlington, but the outside is pure hell (due mostly to turn 4). Funny then that I should present replays of the inside and outside lines, with the 30.212sec. outside line being the faster of the two by 0.031sec.

The inside line

The lack of visual cues on the track makes it difficult to run either line around Darlington, though with the inside line you at least have the apron to gauge your position. I find it easier to run the different lines with track textures off, since the skid marks show up better.

The difficult part of the inside line is your entry into turns 1 and 3. You should enter turn 1 about a car-width above the apron, slowing to 140-145mph. You'll be spending most of your time cradled in the flatter section of track along the white line so keep your speed steady around 145-150mph until you begin to see daylight around turn 2. Don't worry if you feel like you're going too slow - the car on the outside has enough to worry about too. You can run a bit higher, so that you're not running on the flat section of track. I'd still consider this the inside line, though now you're increasing the chance of a bump with the car on the outside on a line that isn't much faster.

Exit turn 2 so that you cut down across the corner onto the flat section of track, straightening out further up the straightaway. Be sure you don't linger left-of-centre down the straightaway for very long, otherwise you'll have to scramble to readjust for your entry into turn 3. You should be able to top out 180-185mph down the back straight.

Your entry into turn 3 is handled just like turn 1, a car-width above the apron. Slip down to the apron, or just above it depending on your preference, keeping your speed up around 155mph. You'll stay between 155-160mph for what seems like forever until you begin to come out of turn 2.

Exit turn 4 drifting down onto the apron, straightening out so that you sort of make a triangle out of the turn. This approach requires that you stay off the gas a bit longer through the turn than if you had stayed higher, but you can get on the gas quicker out of the turn and thus get good speed down the straightaway. Top speed down the front straight on the inside line for me is around 190mph. Take a look at the *n2darin* replay to see just what I'm talking about.

The outside line

Sure you wanna be here? Yeah? Okay then, here we go. A driver on the outside in the turns puts a lot of faith in the driver on the inside, since it's so easy for the car on the inside to get caught up on the apron or come in to the turn too hot, thereby swinging up into the other car. However, as the car on the outside, you do have a lot more real estate to work with, assuming the car on the inside sticks his line. You can "diamond", or crown the turns from the outside line which will make your exit out of turns 2 and 4 straighter. With all the attention paid to the 4 corners, it's easy to overlook that the straightaways are long enough to pick up a good head of steam.

Enter turn 2 just right of centre. The entry is a bit more gradual on the outside, and you can afford to swing wide a bit as well, so don't worry if you come in a tad too hot. Try to keep your speed above 145mph as you round the turn. Stay just above the band of skidmarks around the turn.

If you swing wide into turn 1, stay wide through the turn so that your exit out of turn 2 is straightened out. You might as well get some advantage from a botched entry. Your exit out of turn 2 should follow the band of skid marks out to the wall. Top speed down the back stretch is somewhere around 185mph. I ended up on the gas too soon, resulting in a scrape with the wall here, as you'll see in the *n2darout* replay.

Your entry into turn 3 is a lot easier, again aimed just right of centre to give the car on the inside enough room to maneuver to the apron. Swinging wide around turn 3 won't do you much good, since this end of the track seems to turn left forever; eventually you'll be able to straighten out but by then you've travelled so much extra real estate you won't be able to recover. Instead stay low, running just above the band of skid marks with your speed kept above 160mph.

Exiting turn 4 - hehe, what're you made of boy? If you didn't get on the gas too soon, then you should be alright, otherwise you better get on the brakes or the turn 4 wall will do it for you. The car on the inside can exit this turn pretty far down on the track, but you shouldn't assume this will be the case. To keep from bumping the car on the inside, continue to follow the skid marks, following into the band of skid marks as they extend out to the wall. Top speed down the front straightaway ranges between 190-195mph. Take a look at the *n2darout* replay to get an idea of what I'm talking about.

Here's a tip: set the sound level of the AI engines louder than most other sound settings. This will make it easier to judge the distance a car is from you. You can use this to gauge if a car has dropped further into the turn than you or not by noting if the sound has dropped off. This tip isn't as useful if you already have several other cars around you though.



Click button to receive replay file of the inside line (4kb).



Click button to receive replay file of the outside line (4kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Darlington with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

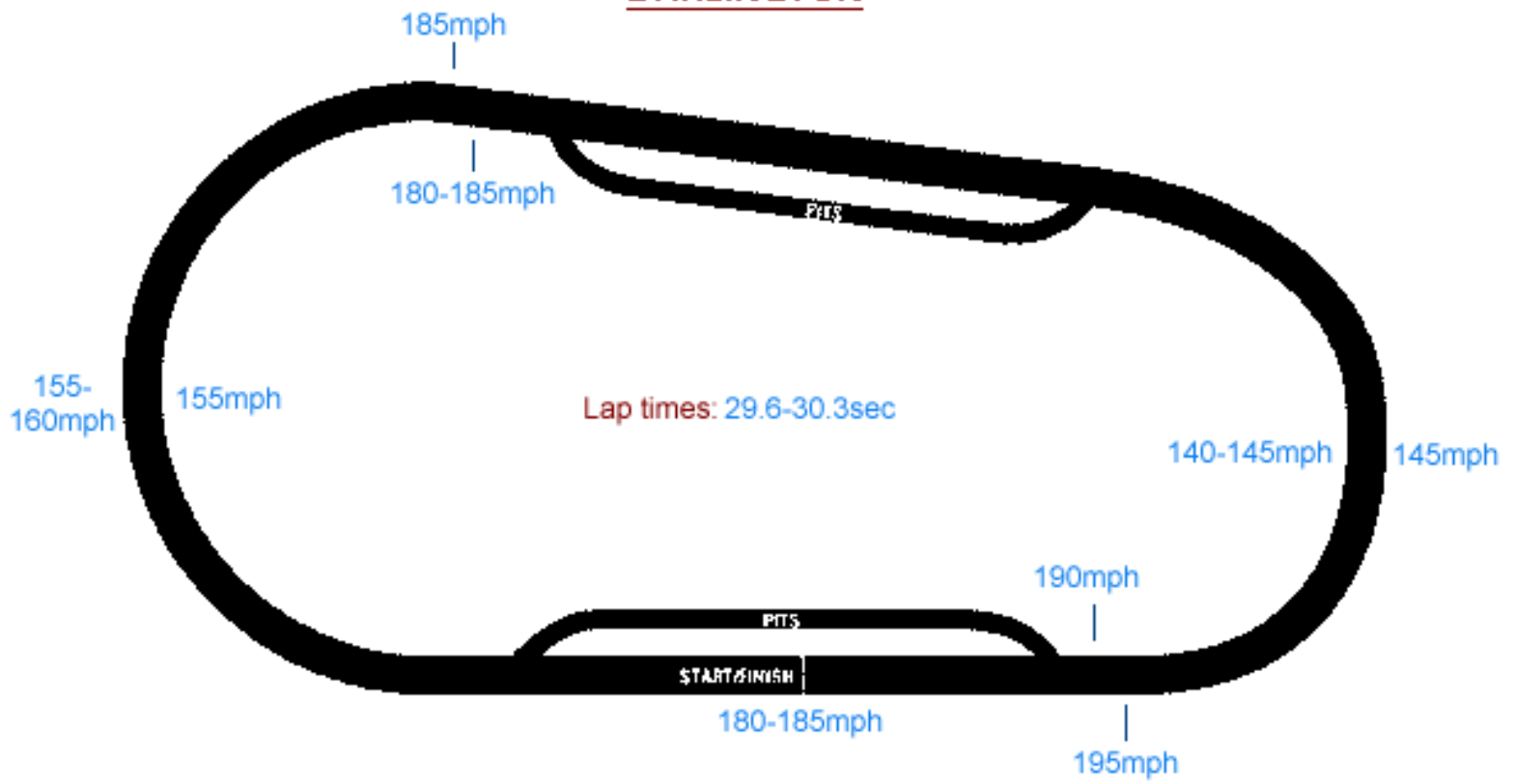


Click button to return to Setups page.



Click button to return to front page.

DARLINGTON



Dover Downs



Track Vitals

Qual. time: 23.667 sec.

Qual. speed: 152.110mph

Refuel lap: 90-95

Tire lap: 70-75

AI tire lap: 66-72

Wheel spin: Yes

Pit exit speed: 85-90mph

A Lap Around Dover Downs



The green flag falls as I hit 163mph crossing the finish line.



I find the fastest line is one that has you dropping to the apron before the band of skid marks. Here I'm at 171mph before lifting for turn 1.



Slowing to 138mph through turn 1. I find the overpass out of turn 2 serves as a good benchmark for how your lap is shaping up. You want to be over 150mph as you pass underneath.



At the end of the back straightaway at 171mph, same as the front straightaway.



For some reason, turns 3&4 can be negotiated faster than turns 1&2, though Dover is a symmetrical track. Not sure what the reason is for this. Here in turn 3 I've slowed to 144mph before picking things back up again.



Click button to download a replay of this qualifying run (12kb).

Track Tips

Wow, this one's a tough nut to crack. Dover Downs is one of those tracks, like Richmond (*guide for which is forthcoming*), where the AI goes like blazes. Too fast, in fact. Fast AI aside, the "Monster Mile" is a blast to run, with walls just waiting to greet you if you come out of turns 2 or 4 a shade wide. The banking is steep enough to keep the speeds up, which never fails to make for an interesting race. This is another track I like a lot, maybe because it's very similar to Bristol.

Races at Dover usually consist of lots of leap-frogging past individual cars running at similar speeds. Occasionally you'll get into traffic as faster cars come up upon slower, lapped traffic (the AI isn't very adept at passing here), and it gets pretty congested on restarts, but more often than not I find myself racing on my own, overtaking cars off the pace one at a time.

You don't use your brakes all that much at Dover, unless you're in heavy traffic. Top speeds down the straightaways are between 170-175mph, at which point you'll lift and tap the brakes slightly, guiding your ride down as close to the apron as possible as you slow to 135-145mph. You use your brakes a bit more into turn 1 than you do into turn 3. Slowing into the turns is where you'll generate most of your tire wear, and there shouldn't be much tire squeal at all as you come out of turns 2&4. The apron around Dover isn't as treacherous in NCR2 as it was in NCR1, though if you get down on it before coming out of a corner, you'll very likely wash up the track and risk smacking the outer wall.

Dover isn't really a two-groove track, as the outside line will have you losing ground in a hurry. Most of your passes will be done to the inside of another car. Passing opportunities against the AI will present themselves most often as you enter a turn; get a fender up on a car on your outside, and it'll hold up and let you by. Passing coming out of a turn is a bit tricky here, since it seems the AI at times runs a line down the middle of the straightaway. The AI also gets a great jump out of the turns.

The speeds the AI posts around this oval are a bit out of whack I think, since it slows too much into the turns yet makes up for it with one hell of a kick coming out of the turns. For example, the faster AI cars at 100% will reach 174mph on the front straightaway, slow all the way down to 130mph through turn 1, and still manage to accelerate back up to 174mph on the back straightaway. As a result, you'll often find yourself rapidly closing in on the AI into turns 1&3, and losing ground to them coming out of turns 2&4. This makes it difficult to keep an even pace behind the lead AI cars, since you'll be braking to avoid rear-ending them, yet struggling to catch up as they distance themselves from you out of the turns. Despite the very quick pace the AI keeps at 100%, it isn't that difficult to notch a win at Dover. With the setup info below, you should be able to maintain a pace that'll keep you in the top-10 during the race, and with the AI's inability to pass effectively, you'll more than likely find yourself in a situation where you can take advantage of the back markers, separating yourself from the faster AI cars as you dash for the checkers as the race winds down.

The qualifying run included here will get you on the pole most of the time, since the AI's best qualifying efforts top out between 23.68-23.70 seconds. I think the BLAP setting is just about perfect, making it difficult to grab the pole but a cinch to nail a top-5 starting spot. The faster AI cars at 100% will turn 23.0sec. hotlaps however, and I can't get a race setup that'll maintain that kind of pace. Taking the pole usually amounts to me leading a half-dozen laps before the lead pack hunts me down and leaves me for dead. Knocking the RELS value down a notch doesn't really help things, since this just slows the AI to a near-standstill into the turns, making for a thoroughly unenjoyable race.

Setup Tips

Staying out longer than the AI before pitting is something you definitely want to consider at tracks where the AI is faster than you, in the hopes you catch a timely yellow. The setup advice that follows will get you a setup that is pretty fast and can last for 70+ laps, giving you a window of about 5 laps where a yellow can really do you some favours. There's one passage in the manual covering Dover that's very important to keep in mind as you assemble your setup, and that's not to be loose out of the turns. It's better to be tight than loose, and you will be anyways on worn tires, since you can adjust your line to accommodate worn tires, but there's nothing much you can do if you're suffering from a rear end that won't stay put.

Qualifying efforts usually amount to 23.7sec. laps for me, with the odd 23.6sec. lap turned in. Hotlaps will range in the 23.3-23.4sec. range during a race. Your first 30 laps can be run in the 23.3-23.5sec. range, slowing to 23.7sec. laps by lap 50 or so. My race setup really tightens up around lap 60, and from here on in until I pit my lap times will slow to 23.9-24.0 seconds. With worn tires, maintain a higher line, "crowning" the turns as the manual mentions so that you can come off the turns with enough steam to keep your speeds up down the straightaways.

Tire pressure

Tire pressures don't vary much from the ACE setup, with the LR set at 49psi and the other 3 a notch higher. My tire pressure settings are the same from qualifying to race setup.

Shocks

Shock settings are very stiff, resembling something you'd find on a superspeedway setup. I find this, in combination with the weight and spoiler settings, is the only way to generate enough speed to keep within the top-10 during a race. For both qualifying and race setups, I max all shocks except the RR, which I set softer a bit to keep from veering into the apron through turns 1&3.

Everything else

Camber settings don't seem to be too crucial here at Dover. The default ACE camber settings produce even temps, but I find kicking the LF camber in a bit, to say 0.40 or so makes it a bit easier to get out of a turn. For some reason the left weight bias setting of the ACE setup is only set to 1820lbs., which only serves to heat up the right-side tires more quickly and makes for a more difficult time turning left. Set your weight bias full over on the left side, and rear bias to about 1750-1800lbs or so.

I use a fair amount of cross weight to keep things stable through the corners, to the tune of about 30lbs. This also serves to heat up the RF and LR tires, which would otherwise not run as hot and thus not produce as much grip. I also use a minimal rear spoiler setting in order to generate as much speed as possible. I use a wheel lock setting of 10° and 4th gear is set at 4.20. For races much longer than 50%, I'd recommend a 4th gear of 4.10 or 4.00, though this robs you of some pickup exiting the turns. For qualifying I use a 4.30 4th gear. This is the only change between my race and qualifying setups.

These settings will lead to a RR tire temp than runs hotter than the RF, though the RF turns yellow just a few laps before the RR, somewhere around lap 55-60, and will turn red by lap 75. My race setup is a bit loose over the first 3-4 laps, but settles in real good after that. A low rear spoiler setting would normally make a setup too loose to run at Dover, but I don't push too much weight to the rear and use a healthy bit of cross weight to keep things locked in, allowing for decent speed through the turns, straightaway speeds that top out around 175mph, and tire wear that outlasts the AI's pit window by a slim margin. This setup is also easy to handle on worn tires when you take a higher line.

The Grooves

It's quite difficult to run two-wide around the full length of the track here at Dover, since the corners are so tight as to make running the outside a frightful proposition. I find that I usually take an outside line to overtake a slower car into a turn, otherwise I pretty much run an inside line when other cars are nearby. If you had your choice, you definitely want to be running an inside line. On stickers either line will slow you down, the inside line by about 2-tenths of a second and 3-tenths of a second on the outside line. The replays provided here are of 23.778sec. and 23.890sec. laps for the inside and outside lines respectively.

The inside line

This isn't a very difficult line to handle, and your speed benchmarks won't be far off from your benchmarks if you had the track to yourself. Head into turn 1 so that your path leads you into the band of skidmarks as you reach the apron into turn 2. You don't want to drift any higher than about a car-width up off from the apron. Look to keep your speeds up above 135mph through turn 1.

Exiting turn 2 is a snap, just make sure you don't get too far down on the apron exiting the turn. Line up your exit out of the turn so that you stay to the left of the band of skidmarks, straightening out in the middle of the back straightaway. Top speed down the straightaways on the inside line is 170mph for me. Same story entering turn 3 as with turn 1, making your cut so that you're initially to the left of the skidmarks, drifting into it as you drop to the apron. You should keep your speeds up over 140mph through turn 3.

Gotta love symmetrical tracks. Do out of turn 4 as you did out of turn 2. Same top speed down the front straight, about 170mph. If you're going to try and squeeze an extra mph or two, don't do it here, since you have to slow more into turn 1 than you do into turn 3.

The outside line

The walls are quick to greet you coming out of the turns here at Dover, making the outside line something you want to get off of as quickly as you can. It's quite easy to swing wide through turns 1&3 on the outside line, but this doesn't do you much harm. In fact, I prefer to swing out a bit through turns 1&3 so that I can come out of turns 2&4 with a good bit of speed built up.

Enter turn 1 so that you follow the skid marks down towards the apron, keeping a line that'll have you running on the outer edge of the band of skidmarks through to turn 2. If you swing out wider than this, don't worry, as this will only straighten out a very tight exit out of turn 2, making things a bit easier for you. It does make for a longer trip around the track though. You shouldn't have to slow below 138-140mph through turn 1.

Exit turn 2 so that you're running in the middle of the track through turn 2, following the skidmarks up towards the wall. Top speed down the straightaways on the outside line is around 173-175mph.

Same deal into turn 3, though you don't have to slow as much. I find it less helpful swinging wide through this turn than I do through turn 1. Slow point around turn 3 will be about 145mph.

Exit turn 4 the same way you did turn 2, though if you didn't swing wide then you want to make sure not to get on the gas too soon, or you'll find yourself having to check up to avoid smacking the wall. This is the most common way to incur damage at this track I find. Top speed down the front straight is around 175mph.



Click button to receive replay file of the inside line (2kb).



Click button to receive replay file of the outside line (2kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Dover Downs with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

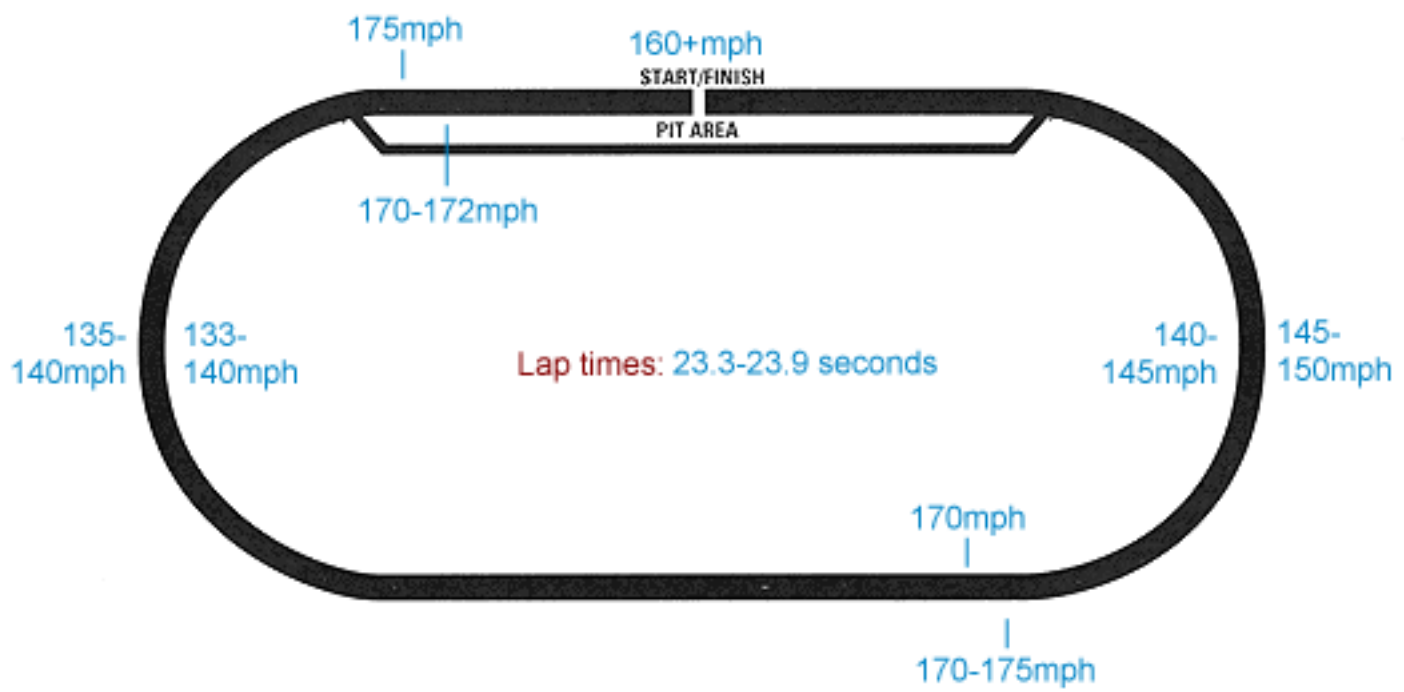


Click button to return to Setups page.



Click button to return to front page.

DOVER DOWNS



Martinsville



Track Vitals

Qual. time: 20.826sec.

Qual. speed: 90.925mph

Refuel lap: 120-130

Tire lap: 120-125

AI tire lap: 113-122

Wheel spin: Yes

Pit exit speed: 60mph

A Lap Around Martinsville



Crossing the finish line at 112mph for the last of two qualifying laps. On tracks with 2 qualifying laps, I use the first to scrub the tires to build as much heat up as possible.



Topping out before braking into turn 1 at 123mph. I was a bit late in braking here.



Swinging out wide around turn 1 - not good. I had to drop down to 73mph to get myself around. Ideally you want to be closer to the apron and a few mph faster.



At the end of the second of two short straightaways at 121mph.



I managed turn 3 better, slowing to 74mph for an instant before stepping back on the gas.



[Click button to download a replay of this qualifying run \(13kb\).](#)

Track Tips

Martinsville is the easiest oval track to race in traffic in NCR2, a distinction it also held in NCR1. The lines are wide, and conveniently delineated by dashed lines right around the track. Speeds are always low so a slip up can quite often be avoided without incident.

The only consideration at Martinsville is the tendency for your car to break loose exiting the turns. We've all experienced veering sharply down through pit road as a result of our back end breaking loose, so you need a setup that is reasonably fast through the turns yet solid enough to keep its grip as you accelerate out of a turn. We'll get to one in the *Setup Tips* section.

The AI at Martinsville keeps pretty good speed, with the top drivers turning best laps of 21.0sec, though this will be a tenth or two slower than what you'll be able to run consistently. It is easy to take advantage of the AI, as the traffic often gets backed up behind damaged cars and aren't terribly aggressive if you happen to be alongside them.

Unlike North Wilkesboro, a track very similar to Martinsville, the aprons here at this half-miler aren't very friendly. You don't want to be cutting down much onto the grass exiting the turns, since normally this'll have you turning right towards the infield unless you keep off the gas. You want to get on the gas through the turns as quickly as you can to build up as much speed as possible down the very short straightaways.

No matter where you start in the field, it really isn't very difficult to move up and close in on the lead pack, contrary to what I wrote here initially. Running in traffic is a constant at Martinsville, which again is very easy to do lap after lap. *I find that by lap 75-80 with a setup that's tightening up, that faster laps can be maintained if I enter turns 1&3 a bit wider than normal so that I crest the turns just past the apex. This takes more distance to run but allows for greater speeds down the straightaways and to me seems to make a difference of a tenth of a second or so until about lap 100-110, after which things are so tight that this wider line seems just as slow as taking a more conventional line closer to the apron.*

Every track in NCR2 has been remodelled to some extent, and in Martinsville's case this takes the form of pit lanes extending out around the turns through to the opposite straightaway. This sure makes for less-stressful pit stops. The 20.826sec qualifying run included here is enough to get you on the pole against 100% AI, which usually maxes out with 21.1 qualifying efforts. The AI's best laps during the race will vary around 21.0 seconds so you shouldn't have any trouble keeping up with the race leaders.

Setup Tips

The advice below should get you a well-behaved setup for Martinsville. Your setup should be able to round the turns around 75mph and reach speeds of 120-125mph down the straightaways. Most importantly, your setup should not break loose with new tires and a full tank if you mash the gas from just past the apex onwards. Hotlaps will range between 20.6-20.8 seconds, faster if you manage to come out with fresh tires and less than a full tank. The RR tires runs the hottest, in the vicinity of 230°. The right-sides will pretty much stay in the yellow. By lap 70 or so, the setup will get loose enough that you have to ease up out of the turns to avoid getting your rear end turned around.

Tire pressure

I have the RF tire pressure set a bit lower than the RR. The LF is set higher than the LR. Tire temps run even across all tires.

Shocks

To help get around the turn quickly, I set the RF shock a fair bit softer than the RR. In contrast, the LF is set substantially stiffer than the LR. This seems to throw the weight around comfortably for me. Right side shocks are set quite stiff in general. I haven't experimented yet with softer right side shocks but you may want to do so to preserve the life of your tires.

Everything else

I don't have the rear spoiler set up to 70°, instead dropping it some to get a bit more giddy-up coming out of the turns. The AI isn't aggressive enough to need this in a race so you may want to lock things down some by raising the rear spoiler, but I like a setup like this for Hawaii/NRO.

A rear bias of around 52% works well for me. For a qualifying setup I have the cross weight set at -20lbs, whereas for a race setup it's set back to 0lbs. 3rd and 4th gears are set at 6.7 and 6.1 respectively for both qualifying and race setups. Steering lock is set at 12°.

Update - Mar. 22 '97

I've updated my race setup as of the original writing. No change to my qualifying setup. The new setup is a much more consistent drive with much longer tire life. Staying out on the track for as long as the AI is not a problem anymore, with your pit window being somewhere around lap 120-125. Speeds can easily be maintained in the 20.9 second range over the first 50 laps. You can crank out 20.8 and 20.7sec. laps over the first 30-40 laps if you want, but this will only make your job more difficult later into a long green run.

Tire Pressure

The only change I made to tire pressure settings was to drop the pressure a notch on each left side tire. Right side tire pressures stay the same. To preserve your tires, content yourself with 20.9 second laps. Tire squeal should only occur as you enter the turns, nowhere else. Lap times will decrease noticeably from lap 50 onwards, until you're turning 21.3sec. laps from lap 100 to whenever you come in to pit. The RR tire turns yellow around lap 100, with the RF following a few laps later. Both will run in the 225°-235° range all race long.

Shocks

Again not much change here. The LR was stiffened up a fair bit so that it's about half as stiff as the LF. No change on the right side.

Everything else

I set the RF camber back in a bit to -2.6° and the LF camber is set at -0.40° . I also added some cross weight in order to make the right side tire temps run a little more equal to each other. I pushed the rear spoiler back up to 70° to ensure no funny stuff in the back. The big change in the setup is in the gearing, with the 3rd gear set shorter to a 7.30 ratio and the 4th set taller to 5.90. My previous settings would lead to engine failure by lap 175 or so. Sorry for that. No other change was made except to wheel lock, which was reduced to 11° .

The Grooves

It's so easy to race in traffic at Martinsville that you can actually run 3-wide right around the track. I describe the lines for 3-wide racing for the NCR1 version so check it out if you're curious. I'm too pressed for time at the moment to bother with this for NCR2- I'll put up a 3rd line sometime in the New Year perhaps. There's no speed penalty on the outside line, since you can get a better grip out of the turns to make up for the extra distance through the turns. The replay for the inside line is a 21.114sec lap, and the outside line was recorded at 21.088sec.

The inside line

The inside line is not the entire concrete section - it's wide enough to fit almost 3 cars. As you come into turn 1, focus on sticking your car right down on the apron. You may even kick up some turf as your round the turn, but be careful not to get your LR tire into the green stuff or you'll have to lift to avoid making a mess of things. You can't afford to come in too hot and swing out wide - it's ok against the AI but if you keep up sloppy habits developed against the AI then you're not going to be making many friends on the NRO. Try and maintain a speed of 70-75mph around the turn.

When you exit turn 2, you need to remember that you can't come out too quickly, otherwise you'll risk running into the car on the outside. Plot your exit so that you follow the skid marks as you straighten out into the second lane (denoted by the 1st and 2nd dashed lines), drifting up to the 3rd lane as you pick up speed down the straightaway. I typically top out at 120mph down the end of the straightaways at Martinsville.

The handling of turn 3 is a mirror image of turn 1 - right down along the apron. Speed benchmark is the same as well, 70-75mph depending on the condition of your tires, fuel load, etc.

Exiting turn 4 is again done the exact same way as the first half of the track, by exiting into the 2nd lane before drifting up to the 3rd lane. You have to stay off the gas just a shade longer in order to properly exit into the 2nd lane. Top speed down the front straight is again 120mph or so. Avoid the temptation of squeezing out and extra mph or two down the straightaway since this really doesn't accomplish much. Instead focus on controlling your entry into the turns. Have a look at the *n2marin* replay to see what I'm talking about.

The outside line

The outside line is really no more difficult than the inside line. You run the risk of scraping the outer wall if you swing out of turns 2 or 4 too wide, but the possibility of breaking loose seems less likely. The extra distance you have to cover in the corners is made up by the extra speed you can carry down the length of the straightaways. Basically, you can run on the outside of someone for as long as your tires last without much difficulty.

You enter turn 1 from the outer lane along the wall, lining up your entrance with the outer half of the concrete section. Keep your left side tires running just above the main band of skid marks, with your speed hovering around 75mph.

When exiting turn 2, be careful not to step on the gas too soon, or by the time you've picked up a fair head of steam you may discover that you're going to bump hard into the wall. In the *n2marout* replay you'll notice that I swing out just a shade too wide as a result of stepping on the gas a bit too soon. Round past the apex before stepping back on the gas, straightening out into the 3rd lane (between the 2nd and 3rd dashed lines) before sliding up into the outer lane. You can really get a good rush down the straightaway here, topping out between 120-125mph.

Your entry into turn 3 is handled the same way as with turn 1, by lining up your entry so that you're cresting the turn in the upper half of the concrete section.

Again, nothing different from turn 2. Gotta love the simplicity that Martinsville presents. Take a looksee at the *n2marout* replay to get an idea of where you should start braking and making your turns.



Click button to receive replay file of the inside line (5kb).



Click button to receive replay file of the outside line (2kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Martinsville with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.



Click button to return to Setups page.



Click button to return to front page.

MARTINSVILLE



Michigan



Track Vitals

Qual. time: 38.567 sec.

Qual. speed: 186.688mph

Refuel lap: 50-52

Tire lap: 45-51

AI tire lap: 48-52

Wheel spin: No

Pit exit speed: 130mph - careful, apron is narrow

A Lap Around Michigan



Kicking off this qualifying run at 194mph.



Top speed is a few mph over 200mph. Here I've topped out at 202mph.



You can maintain a higher speed through turns 1&2 since your entry into turn 1 is quite gradual, given the unique D-shape of the front straightaway. Here I've slowed to 178mph for a moment before picking things back up again. The banking doesn't go away down by the apron, contrary to what the manual says, so you want to stick as close to the apron as you can. Perhaps in NCR3 we'll see these details added in.



Back up over 200mph again down the back straightaway. I reached 201mph here before braking for turn 3.



Here I've slowed to 174mph through turn 3. It's easy to come in too hard and end up swinging wide through this part of the track. When qualifying, you should look to straighten out your path to the finish line by cutting down across the apron on the front straightaway. This will give you a slightly faster lap. A more moderate line is recommended during a race, otherwise you'll be forced to swing all the way up the track as you head into turn 1.



Click button to download a replay of this qualifying run (14kb).

Track Tips

Welcome to Michigan Speedway, a wide-open, fast oval track. If you're new to Nascar Racing sims, I'd recommend starting at this track to get a feel for things, since it's the most forgiving track at which to get your feet wet. For those more familiar with the Nascar Racing sims, Michigan will make you feel good all over since it's probably the easiest track at which to break a real-life track record. Gordon's mark here is an easy one to eclipse.

I have a bias towards the short tracks, since the field tends to get spread thin at the larger tracks, and Michigan is certainly no exception to this. Rarely will you find yourself in much of a crowd, except during restarts. I find the biggest challenge is to remain focused enough over a long race to avoid pulling a bonehead and running myself into the wall, though even this is pretty hard to do. Body damage at such a high-speed track as Michigan will effectively end your day.

The AI maintains decent straightaway speed, though seems to slow too much through the turns. Like Atlanta, you don't really need to use your brakes to slow for the turns, instead letting your tires scrub off the excess speed as you descend to the apron. You will have to tap on the brakes a bit into the turns as your tires get worn though. Since the AI is probably a bit slower than it ought to be through the turns, this is the best place to make your pass. I find it quite easy to pass either into turns 1 or 3, given the AI's tendency to check up if you're on it's inside. You can also hold up and overtake the AI as you come out of turns 2 and 4. At 100%, the AI is pretty easy pickings, unlike at Atlanta. If you decide to bump up the default RELS setting to 101, then you'll find the AI cars to be *pdq* on the straightaways and have great speed coming off the turns, but they'll still slow too much into the turns. This will be the best/only opportunity you'll have of passing.

Drafting does play a role at Michigan, but unfortunately the AI speeds around the track are a bit off-kilter, thus rendering drafting to a strictly short-term endeavour. The problem is that the AI is fast enough at 100% strength and 100 RELS on the straightaways, but slows too much into the turns. Therefore, drafting merely becomes an overtaking maneuver, not something you would think of doing to gain faster lap times. Bumping up either the AI strength or RELS a notch makes the AI killer fast on the straightaways, so much so in fact they'll pull away from you, but still far too slow into the turns. Hopefully a track patch/AI update will be released by someone to rectify this shortcoming.

Random weather settings typically result in temps closer to 80°F and westerly winds, which will serve to keep your speeds down some. I find my lap times to be slower by a tenth of a second or so under random weather settings.

Races at Michigan tend to be a bit boring, since passing is so easy and the field simple to work through. Incidents are usually isolated, with the wide track making it very unlikely that a multi-car accident will develop, unless a car spins out exiting a turn - then things can get interesting. If I run against 100% AI at the default RELS setting, I look to maintain 38.9 second laps over the first 30-40 laps, then run 39.1-40.5 second laps as my tires deteriorate over the next 20 laps. If you start on the pole, which isn't that difficult to do, you can begin to lap the field by lap 30 or so.

The qualifying lap outlined above will get you on the pole pretty easily, as the AI at 100% tops out at around 39.1 seconds. The AI doesn't do much better during a race either, with its hotlaps hovering around 39.0 seconds. The *Setup Tips* section below should lead you to a setup that can squeeze out 38.4 second laps once your tires are warmed up some, though for the sake of your tires I wouldn't recommend trying to nail down such laps. There isn't much need to against the AI anyways. Upping the default RELS value a notch is highly recommended to make things more interesting here.

Setup Tips

Tire wear would normally be a factor here, but the AI at 100% is so slow that worn tires won't really cause you much concern. From lap 1 until you have to come in to pit, which is around lap 45-50 for me, you can run faster than the fastest AI cars. Michigan has long turns, just like Atlanta, so your setup focus here is no different. You want a setup that can stick the apron at a decent speed yet not have too much drag so as to be too slow down the long straightaways here.

Tire pressure

I keep all my pressure settings at 52psi, with the LF set a bit higher at 53psi. Tire pressure settings are the same between race and qualifying setups for me. Tire wear becomes a concern if you boost the RELS value in the MICHIGAN.TXT file, otherwise - smoke 'em if ya got 'em! My RF tire turns yellow on lap 31, red on lap 42. The RR tires turn yellow on lap 35, red just as you're ready to pit on lap 50.

Shocks

I max out all the shocks for a qualifying setup, settings them slightly softer for a race setup.

Everything else

Camber settings are set to produce even tire temps, and for me that's -2.60 and 0.40. Gearing isn't that much of a concern here - set your 4th gear so the oil pressure light doesn't blink much (say maybe a second at most down each straightaway). For me a 3.4 fourth gear works well, and a 3.6 setting is good for qualifying. Remember that the shorter the races you run, the shorter the gear you can get away with, though you don't necessarily want to be revving much over 9000rpms.

A rear weight bias of around 1865lbs works well for me, and I use a bit of cross weight, more for a qualifying setup (around 40lbs). Wheel lock is set at 8° - the higher you set it the more "twitchy" your setup becomes. Given these settings above, set your rear spoiler as low as you can handle. Hey, this is Michigan, not Martinsville!

The Grooves

After running a number of laps with the track to yourself, it's more difficult than you may think to limit your line to only a portion of the track. It's very easy to come into a turn too fast; at the speeds the turns are taken, by the time you realize you're not going to stick the apron you'll be sweeping up the track and possibly into trouble. So despite how easy Michigan is to navigate, it does take some care to run a proper line. I find that running a restricted line adds 2-3 tenths of a second to my lap times. The replays of the inside and outside lines here were timed at 39.180 and 39.211 seconds respectively.

The inside line

This is the preferred line. Aim your entry into turn 1 so that you follow the band of skid marks down to the apron. Stay as low to the apron as you can, keeping your speed around 170-172mph as you do. It's very easy to drift up the track here at Michigan, so take care not to get on the gas too early or come in to a turn too hot.

Exit turn 2 so that you straighten out to the left of the skid marks extending out of turn 2. You want to be in the middle of the back straightaway. If you have track textures on, you'll notice that there are 2 predominant black lines that extend down the back straightaway. This can be viewed as the inside line, though it does encroach a bit into the outside line. Make your run so that you're closer to the inner black line, otherwise you'll risk crowding out the guy on your outside. Top speed down the back straightaway is around 200mph.

Turn 3 is sharper than turn 1, so it's important not to try and squeeze out an extra mph or two down the back straight with someone on your outside. Plot your entry so that you follow along the inside of the band of skid marks. You come into an already-sharp turn at an even sharper angle from the inside line so be extra careful here. I find I have to slow to 168-172mph to stick near the apron.

Turn 4 opens up early into the front straightaway, so it isn't really much of a turn. The mistake made here is to ease out on your turn too early, which will cause you to drift up into the outside line before the other driver drifts up towards the wall. Plot your exit so that you cross the finish line in the middle of the track. The front straightaway has the same 2 predominant lines running down the middle, marking off what looks like a nice inside line. Again, this lane is too wide to be considered the inside line so make sure to leave some room up top. It's quite easy to keep drifting out towards the wall around the D-shaped front straightaway. Top speed heading into turn 1 should again be around 200mph.

The outside line

This is the tougher line to keep, since you have a longer distance to travel, putting a premium on nailing your turns just right so that you can keep your speed up. You can also come pretty close to scraping the walls on this line, especially if the driver on the inside drifts up too much down the straightaways. Still, running 2-wide is a relatively simple task here at Michigan compared to, say, Darlington.

Your entry into turn 1 will be along the outer edge of the skid marks, and you should be able to keep your speed up around 175mph. Take care not to drift wide around turn 1, or you'll just make getting out of turn 2 that much more difficult.

Exit turn 2 so that you follow the band of skid marks out towards the wall. Everything's pretty standard around here. Top speed down the back straightaway should be just above 200mph.

Turn 3 is a bit more difficult since it's sharper and, true to form, I mess things up around here. Ideally, you want to enter the turn just along the outer edge of the skidmarks, keeping your speed up around 172-175mph. I swung way wide since I didn't slow soon enough into turn 3.

Exiting turn 4 is a cinch, though the danger here is to let up too soon through turn 3. If you do that, you'll end up drifting up to towards the wall too soon and have to check up some. Your line out of turn 4 should take you to about a car width from the outer wall as your cross the finish line. Top speed down the front straightaway is again a few ticks over 200mph.



Click button to receive replay file of the inside line (4kb).



Click button to receive replay file of the outside line (4kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Michigan with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

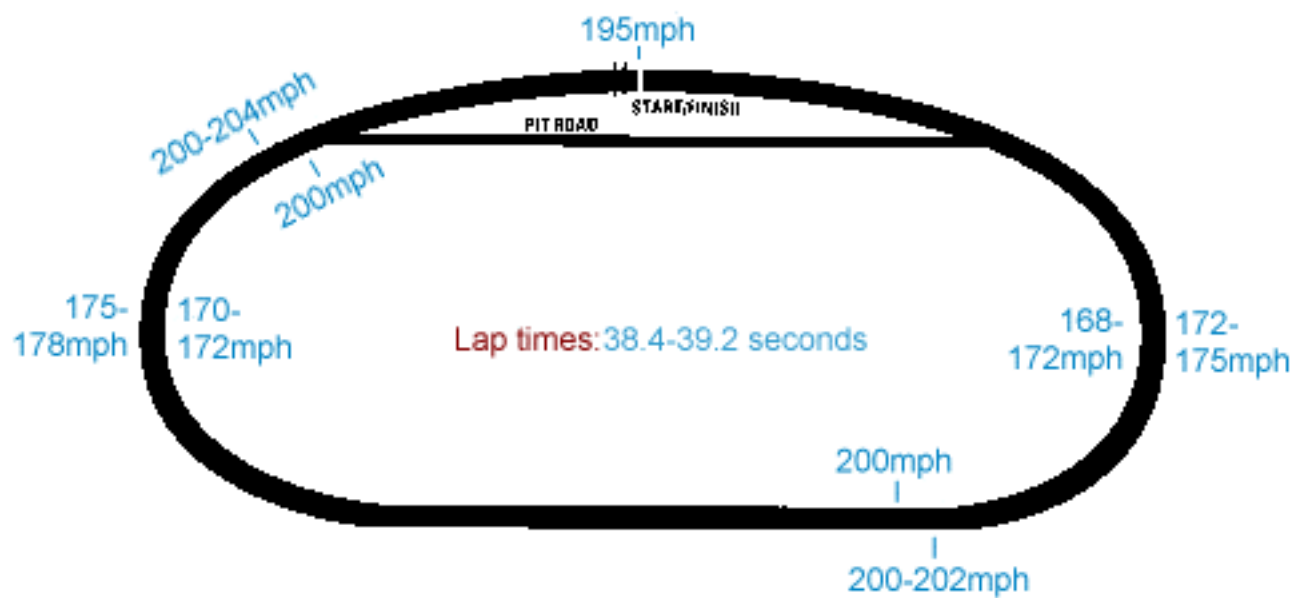


Click button to return to Setups page.



Click button to return to front page.

MICHIGAN



Track Vitals

Qual. time: 20.114sec.

Qual. speed: 111.862mph

Refuel lap: 110-120

Tire lap: 100-120

AI tire lap: 70-79

Wheel spin: Yes

Pit exit speed: 70-75mph

A Lap Around North Wilkesboro



The McDermott Cues Chevrolet cruising past the finish line towards turn 1. A good lap will have you crossing the line over 120mph. Here I'm at 122mph.



With 22 gallons of fuel to haul around, you aren't able to reach the speeds achievable in NCRI. At the end of the front straightaway, I've topped out at 132mph, whereas in NCRI I'd probably reach 138-140mph on a good lap.



The slow point around turn 1 on this lap is 97mph. With warmer tires you can generally stick the turns of Wilkesboro at 100mph. This shot gives you a nice perspective of the slope of the track around turn 1 from the front straightaway. It's all uphill from here.



I'm never able to top out as high down the back stretch since I usually come off of turn 2 a bit slower than turn 4. Here I'm at 130mph just before braking.



Handling turn 3 at 97mph before getting back on the gas again. I skim over the apron a bit coming out of turn 4, helping me to a decent qualifying effort.



Click button to download a replay of this qualifying run (13kb).

Track Tips

I generally prefer short tracks over the other types of tracks in NCR2, and North Wilkesboro is one of my favourites. It's not a hard track on which to turn consistent laps, with the tires lasting nearly as long as a full load of fuel. It is difficult to predict just how the AI will behave from lap to lap however, at times giving up their position quite readily while at others seemingly intent on coming right down on you through the turns unless you back off.

The main difficulty with Wilkesboro is the traffic - you're never out of it for long. This is the reason why the AI never runs as fast during a race as it qualifies. Typically the AI will qualify at 20.2sec. yet only manage a 20.3sec. lap as its best during a race. Running in traffic puts a premium on a stable race setup that won't break loose when you stomp the gas through turns 2 and 4.

Most of the time the AI in NCR2 is far too agreeable with you, thereby making passing easier than it probably ought to be. The best places to pass around Wilkesboro are as you come out of turns 2 and 4. This is where a stable setup will keep a smile on your face - as you stomp the gas coming out of a turn you won't have to worry about the nose of your car suddenly veering towards the infield. Wilkesboro is also a track where you can often get away with over-aggressive driving, since the AI will more often than not check up into a turn if it gets a whiff of you diving down to the apron. Fortunately it's quite easy to stick the apron at this track, given that it's quite flat.

To me North Wilkesboro demands patience out of a driver more than anything else. It's very easy to get impatient when trying to get around another car around this track, and being impatient often leads to getting into the rear of the offending car and turning it around. It's important that you force yourself to stay behind another car until you get a good run on it off a turn, otherwise you'll be punting every car in the field until you're the only one left on the lead lap. Through engine failure and incidents, a 100% race at Wilkesboro will often see a half-dozen or fewer drivers on the lead lap from a field of 36.

You'll get the fastest laps by travelling the shortest distance, and to accomplish this at North Wilkesboro you need to run over the apron as you exit turns 2 and 4. By running over the apron, you straighten out the turn sooner and are thus able to step on the gas that much quicker. This is easier to accomplish in turn 4 I find, since the turn itself is a bit rounder than turn 1. With the setup advice below, you should be able to arrive at a setup that is stable enough to cheat the apron. You won't need to do this often, but at times the AI doesn't quite give you enough room coming out of a turn so it's helpful to know that you can drop off the track a bit to create enough room to get by. The attached qualifying lap, at 20.114sec, is good enough to get you on the pole everytime against 100% AI, though I find my qualifying efforts ranging from 20.1sec. to 20.3sec. Wherever you qualify, it's not difficult to move up the field - just reminder to be extremely patient and be willing to lose positions early in the race to avoid spinning cars up into the wall. As far as AI speeds are concerned, it will make things more interesting if you bump up the RELS a notch. This will make a few AI cars faster than you, with more of the field fast enough to

stay on the lead lap. The AI isn't that good at getting around slower cars so making them faster overall will lead to a more competitive race for you. I find the default BLAP setting to be good. You will also want to boost the AI's pit window to something like lap 95-115.

Setup Tips

As with most of the stock setups that came with NCR2, I found the ACE and QUALIFY setups to be far too loose for North Wilkesboro. Most of the speed gains you'll find when you're practicing a short track will be in the corners, so you want a setup that won't break loose easily. You can forget about turning in a decent qualifying effort the moment your car begins to get loose. So basically, don't worry about improving top-end speed much. The setup advice below should result in a setup that lasts up to 120 laps. You'll be able to run 20.2-20.3sec. laps for the first 50 laps or so. The setup slows quickly from lap 80 onwards as it tightens up, so that by the time you're ready to pit you'll be running laps in the 21.0-21.3sec. range.

Tire pressure

I set my tire pressure pretty neutral all around, with the RF being slightly higher than the RR. For qualifying I set the RF softer than the RR to generate more heat rapidly. Don't fluctuate too much around 50psi - you'll want to generate some heat in your tires. The RF tire turns yellow on lap 65, red on lap 88, while the RR turns yellow on lap 64, red on lap 92 during practice fuel runs. During a race the tires typically last a bit longer, since you're not running as hard when mired in traffic.

Shocks

Everyone's favourite setup item. What to do here? Well, a lot depends on how you have your weight distributed, but basically I'm looking to turn into turns 1 and 3 as easily as I can, without making me so loose as to have a hard time of it keeping things straight out of turns 2 and 4. I set the RF shock softer than the RR, about 10-15% less than the 75% I set the RR shock at. In contrast, the LF shock is set much stiffer than the LR so that I'm not swinging towards the infield. I set the LR shock down to 55%.

Everything else

Set your camber so that you have even tire temps across the tire surface, though you may want to adjust the RF camber out more to make turning in a bit easier. The rear spoiler is set at 70°. I don't put as much weight in the rear as the stock setups do. Given the shock and tire pressure settings I use, about 52% works for me. I use just a little bit of wedge for a race setup, a bit more for a qualifying setup to offset the softer RF pressure setting and generate still more heat in the RF tire. Steering lock is set at 9°.

Gearing should be a 6.4 3rd gear, which will keep you humming around 8000rpm in the turns, and a 5.4 4th gear. For qualifying I use a 5.5 4th gear. Be warned though that these gear settings aren't quite tall enough to keep your engine purring over a 50% race. Unless you have a bunch of yellows, you'll want to set your gears taller. Determine if the oil pressure light blinks more often while you're in 3rd or 4th gear, then adjust that gear.

The Grooves

I wish every track had dashed lines completely around it, like North Wilkesboro does. It makes it real easy to identify the different lines around the track. One thing I learned while plotting out the lines here is that you definitely do not want to be stuck up around the high side! It is very difficult to match the speed of the inside line. You can adjust your setup so that the outside line is a little easier to drive, but then you might risk a loose condition on the inside line. The inside and outside lines are pretty close together around this track.

Good lap times during a race around North Wilkesboro usually fall in the 20.2-20.3sec range. On the inside line, with the amount of room you have to enter and exit the turns quite limited, lap times rise to 20.5sec. On the outside line, with the greater distance to travel, my times go up to around 20.7sec. The laps recorded below are 20.527sec and 20.711sec for the inside and outside lines respectively.

The inside line

Aim your entry into turn 1 so that you descend below the first dashed line to alongside the apron. It is important that you round the turns here right on the apron, since the inside line is pretty narrow and doesn't allow for much drifting up. You shouldn't have to slow below 95mph around here.

You will have to stay off the gas for a bit longer than usual in order to exit turn 2 without coming out too wide. You need to straighten out almost before moving up into the middle lane (between the first and second dashed lines). You'll notice in the replay that I come out a bit too soon and have to steer sharply to avoid crossing over into the outside line. Top speed down the back straight for me is usually 130mph or so.

Enter turn 3 the same way as turn 1, lining up so that you are below the first dashed line and settling down along the apron. The apron around turns 3 and 4 doesn't seem to kick you around as much, so you can run your left side tires right around the apron without much worry of getting loose. Speeds around here are the same as around turn 1, with speeds no slower than 95mph or so. I find it easier to keep speeds up around this turn than in turn 1.

Turn 4 is handled much the same way as turn 2 - you need to be sure to stay to the left of the first dashed line as you come around the pit wall exiting turn 4 so that you can straighten out into the middle lane and avoid drifting up into the outside line. It's best to straighten out completely in the lower-most lane and then drift up to the middle lane as you reach the finish line. Top speed into turn 1 is 130mph before having to brake.

Watch the *n2wlkin* replay to see where you ought to be around all points of the track. Placement at Wilkesboro is really important since the lines here are tighter than at most tracks.

The outside line

Whew, tough line here. If you get caught out on the outside then you are pretty much hung out to dry. If you're in traffic then you'll likely lose several positions before being able to slip down to the inside again. Keep this in mind at the start of the race if you happen to start on the outside.

Aim your entry into turn 1 so that you're sitting just on the right edge of the band of skidmarks around the turn. This should have you running your left side tires right on the first dashed line. The line is real narrow around here, so take extra care. It's real easy to go wide around this turn, so I find I have to slow to 95mph to avoid doing so.

Exit turn 2 so that you follow the skidmarks out into the third lane down the back straightaway. This should have you straightening out in the middle lane, drifting up to the outer lane along the wall as you reach the finish line. You can pick up a fair amount of speed down the straightaways - I find myself topping out at around 135mph or so. Be careful not to go too fast, or you'll have to slam on the brakes and may end up swinging wide all the way around the next turn.

Your entry into turn 3 is handled the same way as turn 1. The inside line seems a bit wider around turn 3, helped by the fact that the apron is pretty forgiving, so you can probably crowd down just over the first dashed line. You should be able to maintain speeds between 95-98mph throughout turns 3 and 4. Everything seems easier around here than around turns 1 and 2.

Same advice here as for turn 1. You should exit turn 4 so that you come out following the skidmarks up into the third lane alongside the outer wall. Take a look at the *n2wlkout* replay to see what I mean.



Click button to receive replay file of the inside line (2kb).



Click button to receive replay file of the outside line (2kb).



Click button to receive replay file of both lines superimposed (4kb).



Click button to view an overhead map of North Wilkesboro with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

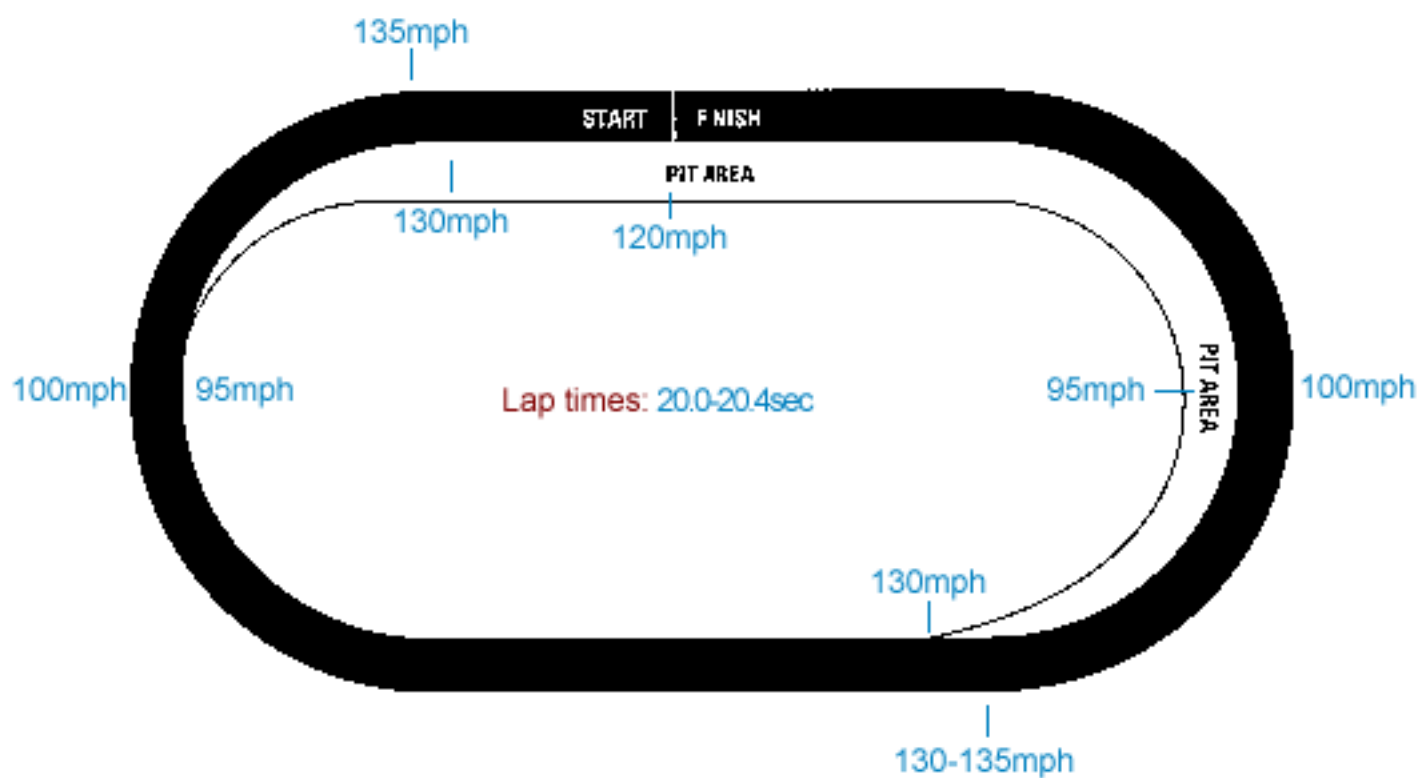


Click button to return to Setups page.



Click button to return to front page.

NORTH WILKESBORO



Track Vitals

Qual. time: 28.849sec.

Qual. speed: 124.787mph

Refuel lap: 80-85

Tire lap: 70-75

AI tire lap: 75-81

Wheel spin: Yes

Pit exit speed: 80-85mph

A Lap Around Phoenix



When setting up for your qualifying run, it's important to take turn 3 wide so that you can straighten out sooner through turn 4, thereby getting a straighter run to the finish line for your timed lap. Key benchmark at the finish line is 150mph.



Depending on what kind of speed you generated out of turn 4, you can top out heading into turn 1 at between 155-160mph. Here I'm at 159mph. Generally you can accelerate a further 10mph from whatever your speed was at the finish line to where you have to brake into turn 1.



Turn 1 is the most difficult to navigate, since it's the sharpest and you have to slow quite a bit to get down to the bottom. I've slowed to 112mph before picking it back up again. With warmer tires you can stick this turn at around 115mph or so.



I use the trailing edge of the dogleg as a gauge to how my lap's shaping up. Here I'm at 151mph and if I'm over 150mph coming out of the dogleg then I know I have a fairly decent lap shaping up. I prefer to run closer to the apron through the dogleg, though this isn't crucial to a solid lap.



This is usually the fastest spot on the track, but if you don't clear the dogleg cleanly enough, you won't manage any more speed than what you got on the front straightaway. Here I've topped out at 165mph.



Turn 3 is a longer, more sweeping turn than turn 1 so you can sustain a higher speed through it even though it's a bit shallower. You need to hold your speed for a while through here, or you'll find you'll be coming out of turn 4 far too wide. Wait until you reach the yellow stripe denoting the start of pit road before stomping the gas, as the next thumbnail shows. Maintain a speed of 120mph or so before getting back on the gas. I slowed to 117mph at the slowest point before feathering it back up to 120mph or so.



This is where I get fully back on the throttle. I was at 121mph before really giving it the gas.



Click button to download a replay of this qualifying run (12kb).

Track Tips

Bristol aside, this is a favourite of mine. I like to think of Phoenix as a short track version of Pocono. While not entirely apt, both tracks demand setups that will get through the turns quickly. This is especially true of Phoenix, since its straightaways aren't long enough where a setup with minimal drag can really benefit.

As I just hinted above, you need downforce to get around Phoenix. Top speeds aren't all that high, at around 160mph, but you won't turn quick laps if you're not getting through the turns easily enough. Under 70°/no wind weather conditions, the AI will run a fraction faster, to the order of about 1/100th of a second per lap. Typically temperatures range in the mid-80s.

The AI seems to run up around the middle of the track, most noticeably through the dogleg. This makes the dogleg the easiest spot to pass, by slipping underneath as you head towards turn 3. The AI gets a good jump out of turn 4 so I find it difficult to pass down the front straightaway.

The main difficulty I have with Phoenix is gauging when an AI car will brake into turns 1 and 3. If an AI car is behind me, it'll often outbrake me into the turn unless I maneuver myself down in front of him before slowing down. If it's in front of me, I often brake a tad late and have to shoot to either side to avoid contact. This more often than not leads to a terrific-looking pass on the inside, when all I was trying to do was save my butt.

The replay of the qualifying run above will get you on the pole with half-a-second to spare, as the faster AI drivers clock 29.3 second efforts. Staying ahead isn't much more difficult either, as the AI will top out with just a few 28.6 second laps, while you'll be turning quite a few of these, and hopefully a few 28.5 second laps as well. Of course, things'll start getting interesting once you reach lapped traffic, but that's the case at every track.

Setup Tips

The setup tips below should lead you to a setup that'll last nearly as long as the AI until you need to pit for fresh tires. You should be able to run at least as fast the fastest AI cars at 100% though, so the more rapid tire wear seems like a fair tradeoff to me.

Tire pressure

I've inflated the tires all-around by about 2-3psi per tire more than the stock ACE/QUALIFY setups, with the rear tires set a notch higher than the front. Tire temps still remain even across the surface. These settings are the same for both qualifying and race setups.

Shocks

For me the LR shock setting is key, since I find it difficult getting back on the gas out of turn 4 very quickly. Setting it close to the LF shock setting will get you out of the turns quicker. I set the RF softer than the RR, but not as dramatically as the ACE setup has it set. The LF shock is set about 20% stiffer than the LR. Strive for settings that won't disturb the car too much when you're braking hard into turn 1, and won't break loose coming out of a turn, notably turn 4.

Everything else

My camber settings are pretty close to the stock settings, though I have the RF camber set further out a bit. I usually have the rear spoiler knocked down a bit on many setups, though my Phoenix setups use full rear spoiler, with an 11° wheel lock.

Rear weight for me is set around 52-53%. I also use a bit of negative cross weight for a qualifying setup, though set it back to 0 for a race setup. I'm not sure about this one, since it seems a bit tight out of the turns without negative cross weight. More work needed I guess. A 5.5 3rd gear works well through the turns, which you'll be running at around 8000-8500rpms. A 4.6 4th gear is good for a qualifying setup, stretching it to 4.5 for a race setup.

The Grooves

Phoenix isn't the easiest track to run, though it's a far cry from the version modelled in NCR1. The track is relatively shallow all the way around, placing a premium on precise braking since there isn't much banking to keep you down along the apron. Adding a second car to either side will really make things a chore, though both lines can be run equally fast. Just like the manual says, you can come up with a setup that runs better on one line or another, but not both. The replays of both lines included here are of 29.134 and 29.147 second laps for the inside and outside lines respectively.

The inside line

Heading down the middle of the front straightaway, aim your entry into turn 1 a bit up off the apron at first, settling down closer as you approach the apron. I came in a bit too wide, as you can see in the *n2phoin* replay. There aren't many visual cues to help guide you, as the skid marks are rather sparse. Try and keep your speed up around 110-115mph through the turn.

Turn 2 is a cinch, since it opens up into the dogleg rather quickly. Be careful not to accelerate too quickly though, or you'll drift up the track quickly, cutting off the car on your outside. The outer wall closes in on you quickly as you approach the dogleg so you must take care to give the car to your right enough room. Cut through the dogleg as close to the apron as possible, striving to hit 145mph or so at this point. Top speed down the back straightaway ranges from 155-160mph.

You enter turn 3 pretty low, so you'll be sticking along the apron pretty much from the very beginning of the turn. Throttle down to 115mph to get your car settled in, then throttle up to 120mph or so along the apron. Remember not to get back onto the gas too soon.

Turn 4 is a bit tricky, since you can step on the gas too early and have to hit the brakes again to keep yourself from drifting too far up the track. Top speed down the front straightaway on the inside line is around 155mph or so for me.

The outside line

The outside line is just as difficult a line to handle as the inside line, though if you run it right you'll be able to turn laps just as quick as the car on your inside. The walls can come up on you quickly though, so do be careful.

I aim my entry into turn 1 simply by dividing up the track into 2 and lining up to run the top half. It's quite easy for the car on the inside to sweep up a bit so you don't want to cut things too close around here. Try and maintain a speed of around 115mph or so through the turn.

You need to be careful coming out of turn 2 since the outer wall can greet you in a hurry. It seems like the wall leading up to the dogleg actually cuts down into the track, limiting the real estate you'll have to run an outside line. You need to make your cut through the dogleg so that you're running down the middle of the track before drifting back out to the wall again. Top speed down the back straightaway will range between 160-165mph on the outside line.

This to me is the easiest part of the outside line, the entry into turn 3. It's a very gradual turn so if you come in a bit off you'll have some time to recover in time for your exit out of turn 4. Again, line yourself up so that you drop down to about a car length and a bit up from the apron, maintaining a speed of 120mph.

Turn 4 is harder to negotiate on the outside, and my setup always seems to lose ground to the AI here. Take your time getting back on the throttle so that you don't drift up too fast and scrape the wall. You should be able to accelerate back up to 160mph down the front straightaway.



Click button to receive replay file of the inside line (3kb).



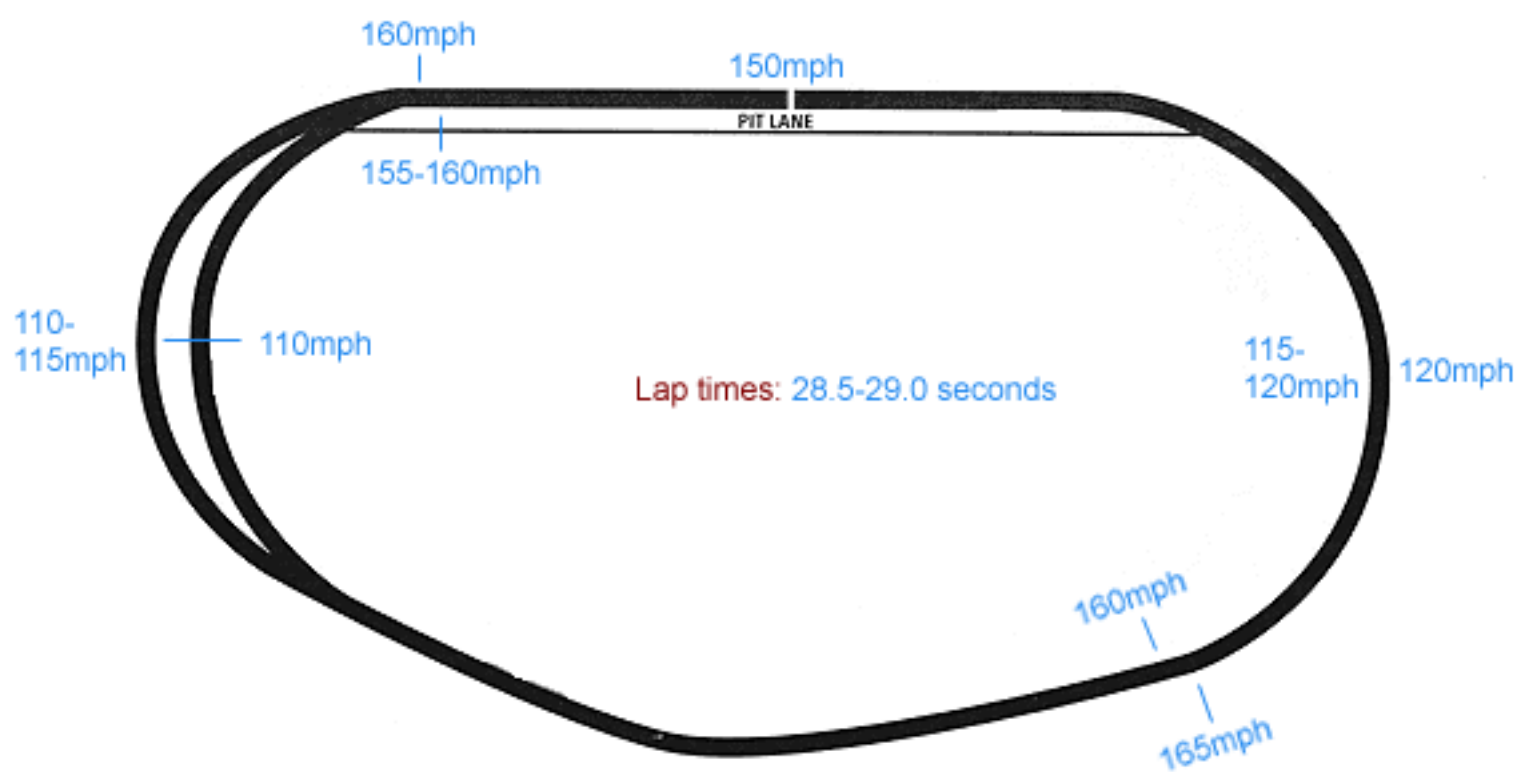
Click button to receive replay file of the outside line (3kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Phoenix with the various speed benchmarks superimposed.

PHOENIX



Pocono



Track Vitals

Qual. time: 53.147sec.

Qual. speed: 169.341mph

Refuel lap: 39

Tire lap: 39

AI tire lap: 37-41

Wheel spin: No

Pit exit speed: n/a

A Lap Around Pocono



Beginning the qualifying lap at 178mph. It's important you take turn 3 a bit wider than normal on your warmup lap so you generate as much speed as possible to begin your timed lap. You can top 180mph at this point with a good run off turn 3.



Reaching 199mph before hitting the brakes into turn 1. The 2nd brake marker is your brake point at all 3 turns here at Pocono.



Dropping down to 141mph through turn 1. I come into turn 1 a bit wider during qualifying than I do during a race in order to get a better jump off the turn for the Long Pond straightaway. I find this harder to do consistently so I stick to a more conventional line closer to the apron for a race.



Again accelerating up to the 2nd brake marker, reaching 192mph before the Tunnel Turn.



Slowing down to 166mph through the tunnel turn. I'm a bit further off the apron than I'd like to be here, as well as a mph or two slower than I ought to be. All you need to do is lift to get your car lined up in order to run through this turn wide open. As your tires wear down, you will begin to need to brake to get down to the apron.



Reaching 190mph down the shortest of the 3 straightaways. I find you need to brake a bit earlier here than for the other 2 turns.



Slowing down to 140mph through turn 3. I stay off the apron through about half of the turn, dropping down to the edge of the track only as the banked curbing runs out. This allows you to get back on the gas quickly as you come out of turn 3, which is the most difficult of the 3 turns here at Pocono. Just like the manual says, you need to be patient with the gas through this turn, or you'll only exaggerate any push or oversteer condition.



Click button to download a replay of this qualifying run (20kb).

Track Tips

Pocono is a very challenging track, one that I really enjoy a lot since it combines elements from virtually every type of track to form a unique racing experience. Pocono will challenge you as a driver since it's very difficult to turn consistently fast laps here; the 3 very different turns demand your full attention lap after lap. It's also difficult to come up with a setup that covers all the bases, with each turn posing its own unique setup problems.

Your best bet is to aim for a setup that handles turn 3 fairly well, so that you can consistently get a good jump out of that turn for the very long front straightaway. Or you can focus on getting through turn 1 quickly, since this is one of the slower points around the track and the Long Pond straightaway is pretty long too. And finally, you can tune your setup to blaze through the tunnel turn with a minimum of fuss, since being able to carry a lot of speed through here will go a long way to decreasing your lap times.

Racing at Pocono is certainly unlike racing at most other tracks, as rarely will you find yourself in much traffic all race long. The field gets spread out in single file fairly quickly and about the only time you're contending with any sort of traffic is when you're overtaking the car ahead. The draft comes into play quite a bit here, pulling you right along down Pocono's straightaways to help set you up for your passes. With Pocono's unique configuration, several lines can be run here, with most variations coming in turns 1 and 3. As mentioned above, turn 1 can be entered further off the apron than normal in order to crest the apron a bit later through the turn. This straightens out the exit of the turn earlier, allowing you to get a quicker jump. I find this line harder to maintain consistently so I prefer to keep a closer line to the apron through the duration of the turn, which will have you travelling a shorter distance as well. On worn tires, you may find that coming in a bit wide helpful, since to me this alleviates to some extent the push condition that develops on worn tires.

I take a wider line through turn 3 all the time since I find sticking the apron early runs the risk of getting on the grass as the banked curbing runs out. It also forces you to stay off the gas longer since you're coming into the turn at a sharper angle. Staying further up from the apron at the beginning of the turn will have you covering a longer distance, but allows you to get a good bite out of the turn for the long front straightaway.

The qualifying lap included here is quick enough to cover the field every time, as the AI's best efforts top out at 166.7mph. The AI's hotlaps during a race aren't much better, with 53.9sec. lap times, or 167mph, all that they can turn out. The AI maintains fairly decent speed down the straightaways and through turns 1 and 2, but really chokes through turn 3. The reason for this is that they get down to the apron too soon through the turn, as I described above. As a result, the AI has to slow real late through the turn in order to get straightened out, which takes away from their straightaway speed. The best place to pass as a result is through turn 3, but the AI also tends to take the other turns a bit wide, so you can really pass just about anywhere. To make things more challenging, bump up the RELS and lower the BLAP setting a bit. This will make passing through turns 1 and 2 more difficult, but passing through turn 3 is still pretty straightforward.

Setup Tips

My race setup focuses on keeping tire wear fairly even front-to-back so the push condition that develops on worn tires isn't too dramatic. My qualifying setup is faster but the tires turn to mush a good 5 laps earlier than my race setup, and the push condition is very pronounced as early as lap 20. The tips that follow should result in a qualifying setup that can crank out sub-53.3sec. efforts fairly regularly. My race setup will turn in times ranging from 53.2-55.5 seconds over a 39 lap run. Hotlaps around 53.2sec. will come pretty early into a fuel run, since Pocono is such a long track.

Tire pressure

The pressure settings are a bit higher for my left side tires, with the LF set at 53psi and the RR a bit lower. The right side tires are set up similarly, though both are set softer than the left side tires. As always, temps should read even across the tire surface. With these settings, the RF should turn yellow on lap 25, red on lap 32. The RR will turn yellow and red 1 lap later than the RF. For a qualifying setup, I have the left side tires set at 52psi, and the right side tires at 51psi.

Shocks

I have the shocks set much stiffer all around than the stock setups do. For a qualifying setup, try setting your rear shocks real stiff, around 90-100%, with your front shocks set a bit softer. I set the RF shock quite a bit softer for a race setup to help preserve the life of the tire. The other shock settings don't change much for a race setup.

Everything else

I set the rear weight bias around 52% for a qualifying setup, and a bit more for a race setup in order to loosen things up and alleviate wear on the RF tire. Camber settings are pretty much identical to the ACE setup. I like to shift down to 3rd through all 3 turns at Pocono, so I have a taller 3rd gear than you would otherwise need. My 3rd and 4th gears are set at 3.9 and 3.5 respectively. This will have you last a full 200 laps. You can shorten both for shorter races, or 3rd gear if you only downshift through turns 1 and 3. I set negative cross weight for my qualifying setup, slightly less for a race setup. Wheel lock is set at 9° and rear spoiler set all the way up for both qualifying and race setups.

The Grooves

Pocono isn't a track where you should be spending much time alongside another car. You'll probably get alongside other cars only for a short while as you're overtaking them, but otherwise running a restricted line all the way around the track will be pretty rare. Racing alongside someone for an entire lap will slow you down in a hurry - I find it takes about a full second more to get around the track, with the outside line being the faster of the two. The replays included here are of 54.296 and 54.071 second laps for the inside and outside lines respectively. There are very few references on the track itself to denote an inside and outside line, which should only encourage you to stay single file.

The inside line

I find the inside line to be slower since I have to stay off the gas longer than I'd like coming out of each turn. As well, my race setup is a bit loose through turns 1 and 3 on a tighter inside line, making it difficult to get much bite off the turns.

Top speed down the front straightaway will be around 196-198mph, depending on how well you handled turn 3 on the last lap. Aim your entry into turn 1 so that you stay within the few skidmarks that run around this turn. Never stray more than a car-width off the apron, getting down closer as you come off turn 1. Stay off the gas for longer than usual in order to come out of the turn in the middle of the Long Pond straightaway. You shouldn't have to slow below 140mph through turn 1.

Top speed down the Long Pond straightaway is around 188-190mph. You do have to brake a bit heading into turn 2 if you have someone on your outside, but it doesn't take much to get yourself down to the edge of the track. The slowest point here for me is around 160-165mph. Make sure to get right down on the apron through turn 2, or you won't be able to exit with the throttle wide open. Again, line up your exit onto the middle of the 3rd straightaway.

I lift off the gas around 186-188mph before braking into turn 3. This turn is very difficult to handle 2 wide all the way through as it's very difficult to drift up. Make sure you stay well within the line of skid marks, but don't get down too close to the banked curbing as you enter turn 3. Keep your speed around 140mph, dropping a little if necessary in order to get yourself straightened out and onto the middle of the front straightaway. There are no lane markers on the front straightaway as there are in NCR1, so you need to be careful not to accelerate too soon or you'll risk running into the car on your outside.

The outside line

I find the outside line easier to run on fresh tires as my race setup favors a slightly wider line into each of the turns, so running an outside line isn't too much different from the line I normally run.

Speeds down the front straightaway will approach 200mph on the outside line. You'll need to stay wide throughout your run through turn 1, dropping down closer to the apron as you begin your exit off the turn. The slowest point through this turn should be between 140-145mph. I find you can get a really good jump off turn 1 on the outside line, as good as if you had the track to yourself.

Long Pond straightaway speeds will max out around 192mph as you head into turn 2. I find I need to tap the brakes a bit in order to get the car pointed in the right direction since there isn't as much track surface to scrub off the speed, but this only takes a fraction of a second before you can step on the throttle again. Speeds shouldn't have to drop below 165mph through here on the outside.

Down the back straightaway speeds are again similar to what you'd reach with the track to yourself, around 190mph. As with the inside line, this is the toughest section to deal with. It's quite easy to drift wide, though this isn't necessarily disastrous as you can make this up by slowing quickly to straighten yourself out, thereby giving you a little more track to accelerate on as you come out onto the front straightaway. In any case, speeds through here can be kept above 140mph.



Click button to receive replay file of the inside line (11kb).



Click button to receive replay file of the outside line (8kb).



Click button to receive replay file of both lines superimposed (10kb).



Click button to view an overhead map of Pocono with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

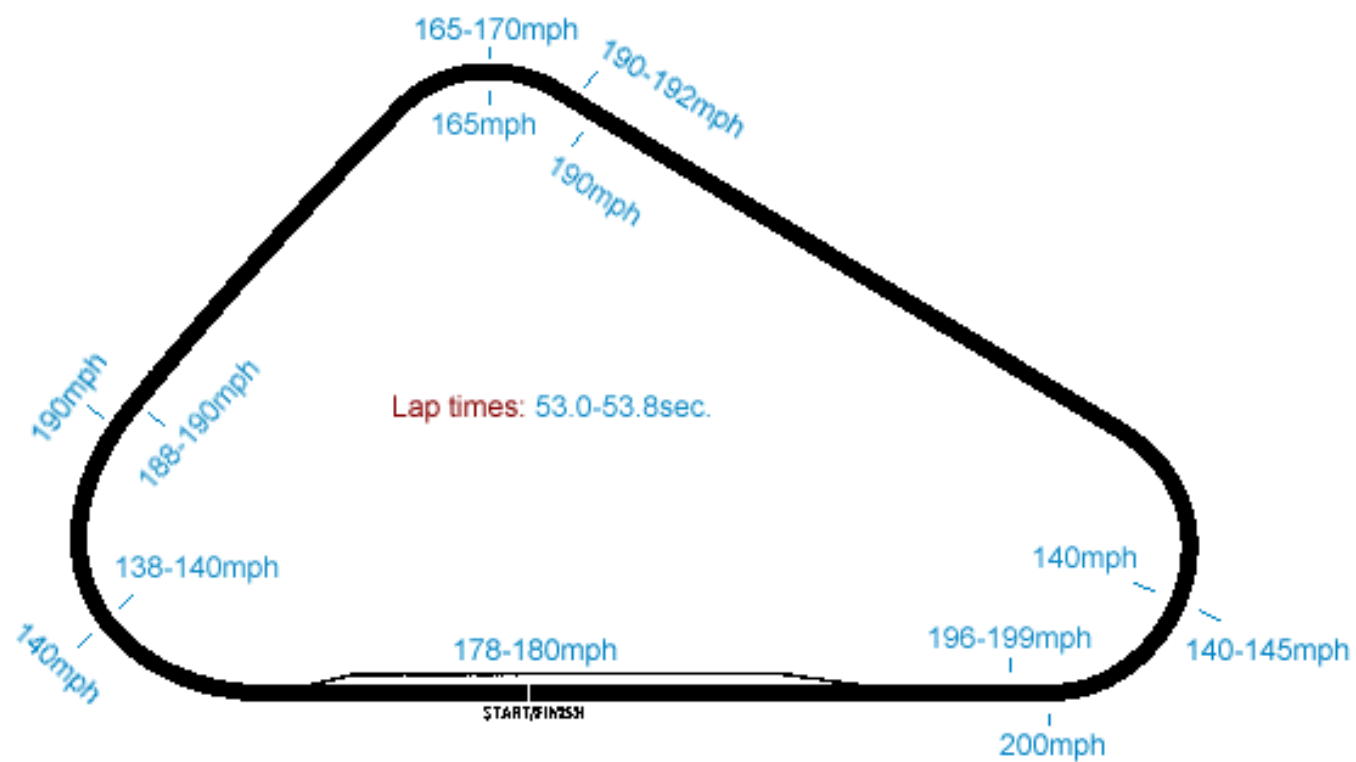


Click button to return to Setups page.



Click button to return to front page.

POCONO



Richmond



Track Vitals

Qual. time: 22.399sec.

Qual. speed: 120.541mph

Refuel lap: 104

Tire lap: 100-104

AI tire lap: 95-104

Wheel spin: Yes

Pit exit speed: 65mph

A Lap Around Richmond



Beginning the second of two qualifying laps at 133mph. Richmond has to be one of the toughest tracks at which to qualify well.



Topping out down the front straight at 146mph. I turn into turn 1 before the path the skid marks denote while still accelerating. The line I take during qualifying has you coming down to the apron at a sharper angle, so you may have to use the brakes a bit harder than on a more "normal" race line, but I find the shorter distance this line takes around the track more than makes up for any shortcomings this line may have.



All it takes is a few light taps of the brakes to slow down to the apron through turn 1. Here I've slowed down to 101mph for a brief moment before stepping back hard on the throttle. During a race you can keep speeds up around 105mph through turn 1. I tend to follow the more conventional line marked out by the skidmarks during a race since it's easier to negotiate your way through turns 1&2.



I've topped out down the back straight at 140mph on this qualifying run. No difference in the line here between qualifying and during a race.



Again, through turn 3 at 101mph. It's very important to keep as low through the turns here at Richmond as you possibly can. If you have to slow a mph or two in order to drop to the yellow line, do it - the shorter distance you'll travel through the turns more than makes up for the slower speed you keep.



Click button to download a replay of this qualifying run (13kb).

Track Tips

Ahhh... Richmond. I love the short tracks, but man I'm not too fond of this particular oval. Every lap it seems like I'm struggling to get the car down to the apron, with tires howling in protest lap after tiring lap. Of course, it doesn't help that the AI is take-no-prisoners fast here at Richmond. I've yet to race at Loudon and Pocono (saving these 2 for last), but so far I find Richmond to be the most difficult racing experience of the 14 other tracks. Hell, I find it as difficult to race here as at Sears Point.

I think the speeds the AI reaches at Richmond are too fast, and to make for a more enjoyable racing experience I'd set the RELS down a notch to 101. Most of the AI field at the default RELS setting will turn laps as quick as 22.0 seconds at 100%, with the majority of laps falling in the 22.1-22.4 second range during a race. Lowering the RELS value to 101 still keeps things reasonably challenging, but you won't have half the field blitzkrieging by you throughout the race. The BLAP setting is just about right, making it real tough to grab the pole but fairly straightforward to nail a top-5 starting position.

Richmond's a bit of a befuddling track to me, in that there are several lines you can take. The difference in the lines people may take to Richmond centres around how turn 1 is approached. Differences may also exist in when you brake, with some braking late and hard into the turn while others brake sooner and more gradually down to the apron. Differences in braking points have more to do with individual driving styles though, rather than actual differences in the line taken. I follow two different lines myself, depending if I'm qualifying or running a race.

Taking the higher line through turn 1, that is the line denoted by the skid marks, is an easier line to handle since you don't come down to the apron at such a sharp angle, minimizing the chance of swinging high through the turn. It also allows you carry more speed through turn 2, which will pay dividends down the back straightaway. The downside of this line is that it has you travelling a greater distance around the track. However, making your break down into turn 1 before the skid marks is a hard line to take lap after lap, since you have to be more precise with your braking. You can more easily flub your handling of turn 1 and this will negate any benefits of the shorter distance travelled on this line.

It seems the AI is more aggressive here than at other tracks, and is more competent at passing slower cars. The AI is still prone to checking up into a turn if it happens to get a whiff of you nearby. Most of your gains for position will be through the first corner, either into turn 1 or as you come out of turn 2. Turn 3 is quite tight, making things pretty tough to gain a position.

Running a race at Richmond is very draining, demanding a lot of attention since it seems you're always in traffic. You're either being overtaken by a group of faster cars, forcing you to grow eyes in the back of your head, or you're trying to work your way past a few slower cars that don't seem too inclined in letting you have a clear go of things. Patience is a must here. My goal at Richmond is to grab a top-10 finish, with anything in the top-5 a bonus. So long as you stay on the lead lap and out of trouble, a top-10 is pretty much guaranteed.

The qualifying run included with this track guide is fast enough to get you on the pole the vast majority of times against 100% at the default RELS. I've seen T. Labonte clock a 22.386 second qualifying run once (sheesh!), but most of the time the AI tops out between 22.40-22.44 seconds. During the race a good many cars in the field will be running laps faster than you, with the quickest hotlaps being in the range of 22.0-22.1 seconds. After 100 laps the AI will still be turning 22.7 second laps. The setup advice below improves on the advice originally given, especially concerning tire life for a race setup. It should lead you to a race setup that'll turn 22.2-22.3 second laps over the first 40 laps or so. By lap 70 my lap times jump to 22.5-22.6 seconds, and by the time I'm fixing to pit around lap 100 or so my times are around 22.9-23.0 seconds. One tank of gas will last for 103-104 green flag laps.

Setup Tips

Getting around Richmond is quite a mystery to me. I use a qualifying setup that resembles more what you'd find for a superspeedway, as this so far this is the only way I've found to get reasonably-quick laps on cold tires. The race setup advice has been changed quite a bit from the original posting, resulting in much-improved tire wear. During the first half-dozen laps or so, the race setup just won't feel very good because the tires are cold. After the tires finally get up to temp though, you'll be able to start turning some serious laps. I find I'm able to crank out 22.2sec. laps only after lap 20 or so.

Tire pressure

For qualifying the LR is set at 50psi, and this is the softest tire. The LF is set several notches higher. I set the RF at 55psi and the RR a bit softer. Tire temps are the same across all 4 tires even with the high pressures. For a race setup, the LR is set at 47psi, with the LF a few notches higher. The RF is set the same as the LF, and the RR I set at 49 or 48psi. The race setup produces fairly even tire wear - the RF turns yellow on lap 81 and the RR turns yellow about a dozen laps later. The LR generates some wear as well, but doesn't turn yellow until after 150 green flag laps. Unless near the end of the race, I'd always change 4 tires since you'll otherwise suffer from a loose condition coming out of the turns with worn left side tires.

Shocks

For qualifying, shocks are stiff all around, with the rightside shocks maxed out. The LR shock is set very soft so that you're not loose out of the turns. Settings for a race setup are more modest. I set the LF at 100% and the LR around 80% or so. The RR is set around 90% with the RF set a bit softer.

Everything else

About the only thing similar between the ACE setup and my qualifying setup are the camber settings, with mine set at -2.6° and -0.1° for the RF and LF respectively. Camber for a race setup is -2.6° and -0.5°. Gearing is an important consideration at Richmond. I find a 5.8/5.0 gear setting for 3rd and 4th gear will lead to engine failure by lap 220-240, so for a race setup I use a 5.8 3rd gear and a 4.8 4th gear. For a qualifying setup I use a 5.8 3rd gear and a 5.1 4th gear.

I put 1820lbs towards the rear, and use a moderate amount of negative cross weight in a qualifying setup. The rear spoiler is bottomed out to crank out as much speed as possible. On a short track? Well, I have said that the AI is blazing at this track, and this is the only way I've been able to generate consistent top-5 starting positions. Wheel lock is set at 12°. Things are a bit more sane for race trim, with more weight set to the rear, and around 10lbs of wedge. The rear spoiler is set all the way up and wheel lock is set to 10°.

The Grooves

Perhaps the one saving grace of Richmond is that it's real easy to run 2-wide here, with the lane dividers plotting things clearly through each corner. The front straightaway is quite wide, allowing for a bit of 3-wide excitement as well. The inside line is faster than the outside line, since it's difficult to generate the amount of speed needed to make up for the further distance you have to travel. I lose quite a bit of time when hung up high, with the replay of the lap included here timed at 22.889 seconds. The inside line described here was clocked at 22.628 seconds.

The inside line

Your entry into turn 1 on the inside line will take you down to the apron in front of the band of skid marks. This is pretty much the "alternate" line that I like to run in qualifying. Drop down to the apron on a line that has you running along to the left of the skid marks until you reach the apron, where you'll be running around 100-105mph. Stay right down on the yellow line. I'd say the inside line is the entire lane marked off by the first dashed line, but that is quite generous and the driver on your outside may take some liberties and drop down a bit and straddle the line, so it's best to stick the apron.

Make sure you don't get on the gas too early coming out of turn 2. As the manual says, this is quite a tight spot on the track, and it's quite easy for the driver on the inside to pooch things royally by mashing the gas too soon. Plot your path so that you come out below the middle of the straightaway, drifting up so that you straighten out in the middle of the back straightaway. Top speed down the back straight for me is no more than 140mph. Be sure not to try and eke out another mph or two, since it's very easy to come in too hot into turn 3. Straightaway speed isn't as important as your line through the turns at Richmond.

Again, your entry into turn 3 will have you to the left of the skid marks until you reach the apron. Turn 3 is much tighter than turn 1, so you'll have to slow a bit more to stick the apron. You should be able to maintain a speed of 100mph or more. The yellow line is what you want to be glued to through here.

Stick down along the apron for longer than usual coming out of turn 4, drifting out gradually so that by the time you reach the finish line you're about in the middle of the straightaway. Top speed down the front straight is around 145mph.

The outside line

Try as I might, I can't crank out a lap that's faster than one on the inside line around Richmond. It is quite easy to run an outside line here, it's just real slow going so don't get caught out here for too long.

Turn 1 is a breeze to handle from any spot on the track. From the outside you simply follow the skid marks down to the first dashed line denoting the outer edge of the inside line. Aren't lane dividers great? You shouldn't have to slow below 105mph through turn 1, with speeds closer to 110mph a snap to maintain on stickers.

As with the inside line, don't be too hasty getting back on the gas or the outer wall will certainly punish you. The walls aren't much of a problem at Richmond, except for around this part of the track. Exit out of turn 2 so that you follow the skid marks up to the wall. Top speeds down the back stretch approach 145mph. I find unless I get a real good run out of turn 2 that it's best to top out closer to 140mph to ensure a decent entry into turn 3. Swinging wide at any point around this track will lose you a lot of time.

Turn 3 is handled much the same way as turn 1, by following the skid marks down to the first dashed line. Keep your speeds up near 105mph through this turn.

Don't come out of turn 4 too quick, or you'll risk getting sucked into the outer wall running along the front straight, which will grind you to a halt in a hurry. If you get a good run out of turn 4 you can top out over 150mph heading into turn 1.



Click button to receive replay file of the inside line (2kb).



Click button to receive replay file of the outside line (2kb).

Unfortunately no utility is yet available for NCR2 that can superimpose data from one replay file into another. If/when one does, I'll provide a replay of the inside and outside lines together, making comparisons easier.



Click button to view an overhead map of Richmond with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

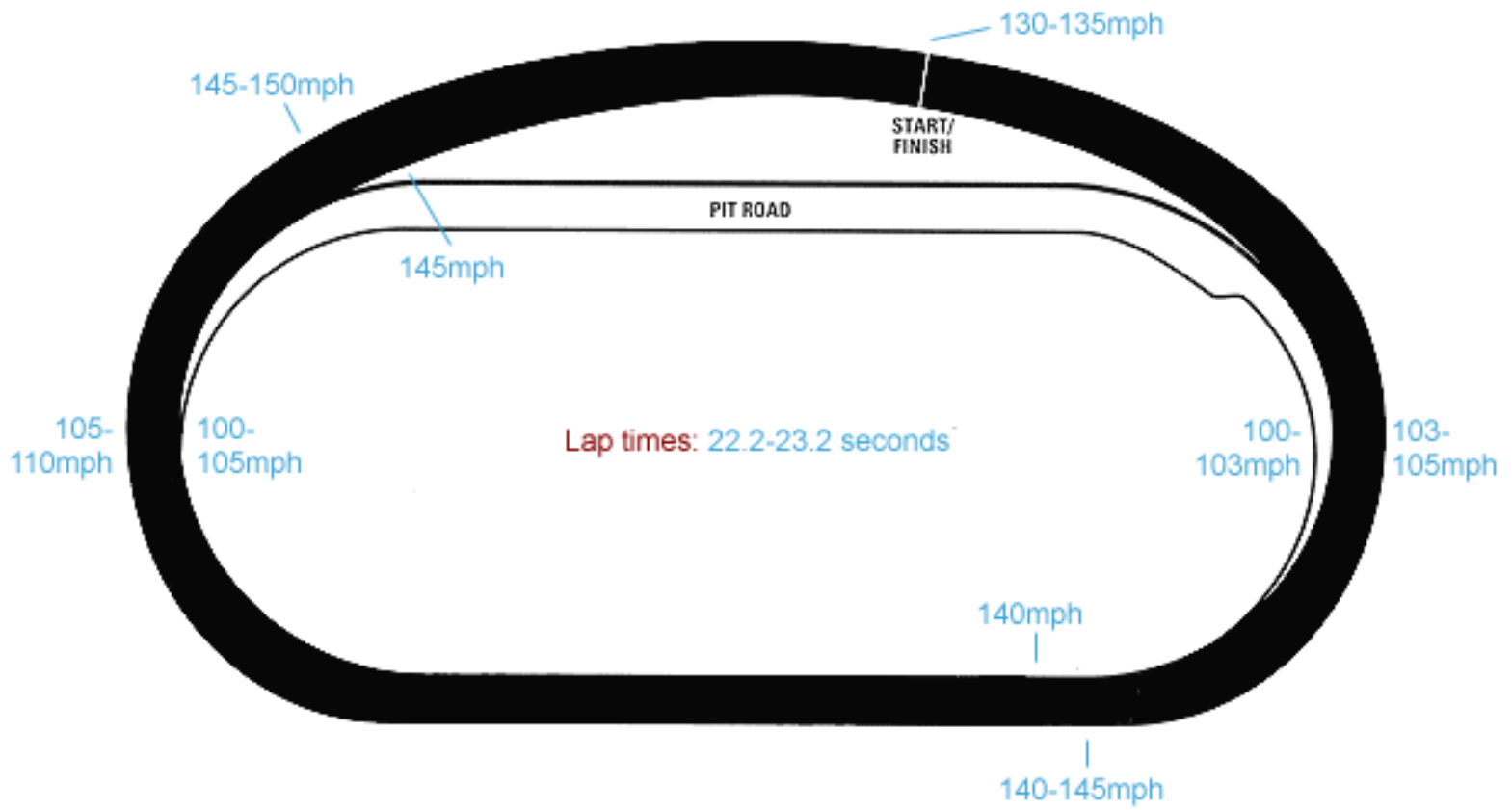


Click button to return to Setups page.



Click button to return to front page.

RICHMOND



Rockingham



Track Vitals

Qual. time: 24.385sec.

Qual. speed: 150.141mph

Refuel lap: 85-90

Tire lap: 80-90

AI tire lap: 80-86

Wheel spin: No

Pit exit speed: 80-85mph

A Lap Around Rockingham



Aim for 160mph or more at the finish line. I'm exactly that here.



Top speed before heading down into turn 1 is 171mph. Depending on how quickly you come out of turn 4, top speeds can reach 175mph or so at this point.



Slow point around turn 1 is 125mph. Keep it steady around 125mph or so for about a second just before the apex before getting back on the gas again, since turn 2 is pretty tight. I came into turn 1 a bit wide, taking longer than I'd like to get down to the apron.



Top speed down the back straight isn't usually as high as the front straight. Here I've maxed out at 167mph.



The steeper banking around turns 3&4 keep you well down along the apron so you can maintain a higher speed through this part of the track. I've slowed down to 133mph but you shouldn't have to drop below 135mph normally. I'm a bit off the apron all the way around this end of the track unfortunately.



Click button to download a replay of this qualifying run (12kb).

Track Tips

Not too many people have anything negative to say about Rockingham. It's only a mile oval but the turns are banked enough to keep the speed up all the way around. The track is also wide enough to allow for close-quarters racing lap after lap. In short, Rockingham is loads of fun to drive.

There isn't much to Rockingham. There's more banking through turns 3&4 so you can keep more speed through this part than through turns 1&2, but other than that Rockingham is pretty standard fare.

The only thing that bugs me about Rockingham is that at times I find I'm fidgeting with my gears. Depending on how you have them set, shifting down to third can get you more torque out of turn 2. I usually shift down to third whenever I slow too much around turns 1&2, which happens more often than I care to admit.

The replay of the qualifying run above will get you on the pole with about a tenth of a second to spare, as the faster AI drivers clock 24.5x second efforts. I never seem to last very long up front though, since hotlaps by the faster AI cars will be in the 23.9-24.0 second vicinity, which is faster than I can run. Despite the wide track surface, the AI is still quite hesitant over passing slower cars, so if you can get a lapped car between yourself and Earnhardt & Co. then you'll be able to create some room for several laps at least. With the setup advice below, you'll be able to run 24.2-24.4sec. laps for 60 laps or so, slowing to 24.7-24.8sec. laps over laps 70-90. The tires wear out evenly so the setup handles well for the entire fuel run.

Setup Tips

The main difficulty in getting a decent qualifying setup is that the tires don't get heated up that much, limiting your grip through the turns. You could drop tire pressure but this would limit your straightaway speed and you need that too. The setup advice here should present you with a fair compromise that'll get you on the pole without much trouble, but I'll be damned if I can come up with a race setup that'll keep you there for very long against 100% AI. That'll be a task for another day I suppose.

Tire pressure

Settings here don't vary much from what you'll find in the stock ACE and QUALIFY setups. All tires are set at 50psi with the exception of the LR, which is set a bit softer than the rest. With this combination and the weight and shock settings below, your RF and RR tires will both turn yellow on lap 54, with the RF turning red on lap 84, the RR on lap 90. Since Papyrus came out with the 2 patches for NCR2, it seems that I can't maintain the same rate of tire wear as before where my right sides wouldn't turn yellow till lap 64.

Shocks

The RF shock is a bit stiffer than the RR, which is set at 60%. I find the handling too loose in the early laps if I set the RF softer (or conversely the RR stiffer). The LF shock is set at 75% with the LR is set the softest of the 4, otherwise I find I'm getting loose too often coming out of turn 2, especially on an inside line. Shocks are set stiff all-around for qualifying.

Everything else

Camber settings are identical to the stock setups for a race setup, the LF camber set inwards more for qualifying. I use an 8° wheel lock. I set a tad more weight up front than the stock setups do, even more for a qualifying setup. The right side tire temps read even across each tire and are nearly identical back to front.

Spoiler is set all the way up, in contrast to what I had set it at before. The ACE gearing will have you burn up your engine in a hurry with a 4.3 4th gear. A 4.2 is alright if you don't accelerate past 166-168mph into turn 1, otherwise if you prefer braking hard from 170+mph then a 4.1 gear will go the distance. For a qualifying setup, I use a 4.3 4th gear. For both setups, 3rd gear is set at 4.8, which will have you buzzing at near 8000rpms if you choose to downshift through turns 1&2. Otherwise you'll be just under 7000rpms if you stay in 4th gear. I use 10lbs of wedge for my race setup and a bit more for a qualifying setup.

The Grooves

Rockingham's great for running side-by-side. Even though there aren't many visual cues on the track surface itself, it's still quite a simple matter to keep your line all the way around the track. A good lap for me is a 24.1 second run, while running a narrower inside or outside line slows you down only slightly to 24.4-24.5 second laps. The replays of the inside and outside lines provided here are 24.409 and 24.446 second laps respectively.

The inside line

I actually find this line a bit harder to run than the outside line, since it's quite easy to flare up the track, especially through turn 3. The skid marks aren't that well defined through the turns here, but you should aim your entry so that you stick right down along the apron. It isn't that hard to aim your entry into turn 1, since you're coming off the top end of the D-shaped front straight so your angle isn't as sharp. You don't have that much room to drift up off the bottom of the track though, say maybe half a car width. I find I have to slow down to 120mph or so and then throttle back up to 125mph until I'm past the apex, at which point you can get back on the gas.

As the manual says, turn 2 is tricky to handle. If you got back on the gas too early through turn 1 then you'll find yourself drifting up the track too soon out of turn 2. You need to aim your exit so that you straighten out on the bottom half of the back straightaway, drifting up to the middle of the straightaway gradually. Top speed for me down the back straight is between 165-170mph.

Your angle into turn 3 is sharper than your angle into turn 1, but the steeper banking around this part of the track will help to keep your car down where it ought to be, which as usual is right along the apron. You can keep your speed up around 133-135mph around turn 3 thanks to the banking.

Turn 4 is the easiest part of the track, since it opens out earlier into the front straightaway due to its D-shape. Again, keep yourself down near the apron so that by the time you cross the finish line you're in the middle of the front straightaway. Speed at this point should be around 160mph and you should top out down the front straight at around 170mph. Have a look at the *n2rocin* replay to familiarize yourself with where you ought to be when you're running on the inside of someone.

The outside line

Smooth sailing all the way around the track here - absolutely nothing to worry about. The only problem you'll have is shared by the driver on your inside, and that is the lack of visual cues. I basically define the outside line around the turns as the portion of track beginning about a car length and a bit above the apron. This will basically put you just above the main concentration of skid marks around the turns. Have a look at the *n2rocout* replay because I know "main concentration" doesn't say a whole lot.

Heading into turn 1 is fairly straightforward, since your angle of entry isn't as sharp as if the front straightaway ran in a straight line. Consequently, it isn't as likely that you'll flare up the track if you come in a tad too hot. Aim your line so that you slow to 125mph or so about a car length or so above the apron. Maintain a speed through turns 1&2 of between 125-130mph. The *n2rocout* replay will show my leftside tires running just along the outer band of skidmarks, which pretty much where you ought to be.

Exit turn 2 so that you head out onto the middle of the back straight, straightening out as you drift up along the wall. This is probably the trickiest part of the track, but since turn 1 was so easy to handle you'll more than likely have had the time to get your car settled on a good line to come out of turn 2. Top speed down here should be over 170mph, but remember that turn 3 is different from turn 1 so don't get too greedy trying to grab a few extra mph, or you'll lose them quickly.

You enter turn 3 more sharply than you did turn 1, but the steeper banking will come in handy here, so you don't have to drop your speed down any further than 135mph or so. Situate yourself with the skidmarks the same way you did through turn 1.

It's hard to even think of turn 4 as a turn, since you're on the gas just about all the way through it until you reach turn 1 again. Top speed down the front straight will be in the vicinity of 175mph. It's faster since you get on the gas sooner in turn 4 than you do in turn 2, and the front straightaway is longer than the back.



Click button to receive replay file of the inside line (3kb).



Click button to receive replay file of the outside line (3kb).



Click button to receive replay file of both lines superimposed (5kb).



Click button to view an overhead map of Rockingham with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

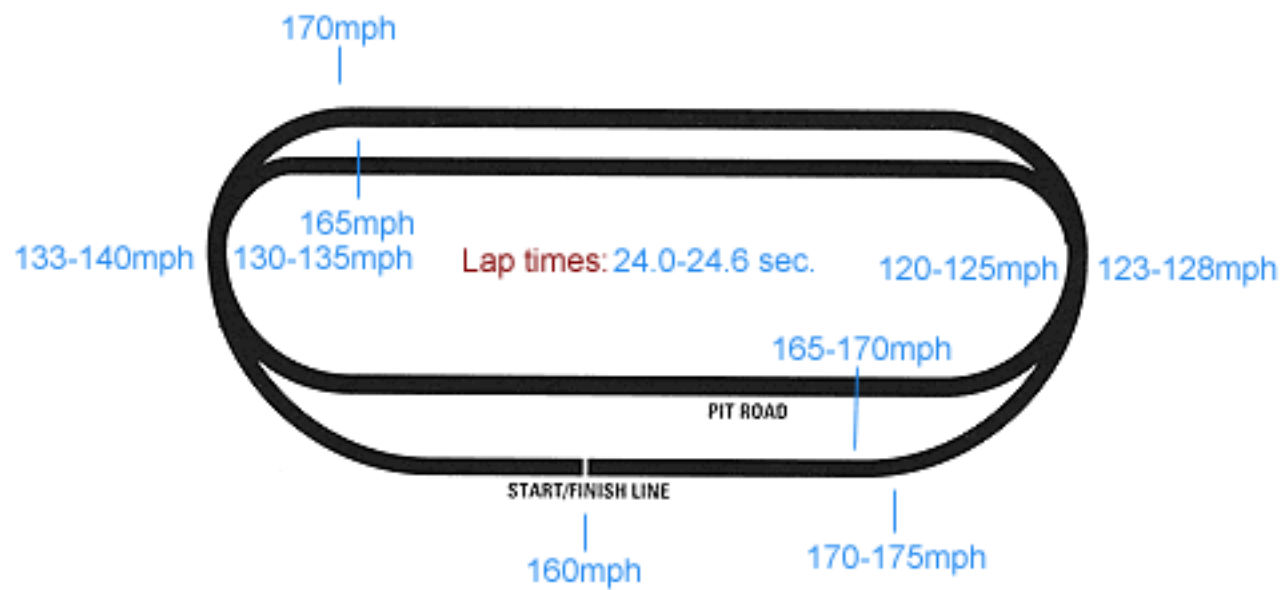


Click button to return to Setups page.



Click button to return to front page.

ROCKINGHAM



Sears Point



Track Vitals

Qual. time: 1:39.986sec.

Qual. speed: 90.732mph

Refuel lap: 25

Tire lap: 20-25

AI tire lap: 25-27

Wheel spin: Yes

Pit exit speed: not applicable

A Lap Around Sears Point



Let's get this party started! It's a long way around this treacherous track, so bear with me. I've started things off at 118mph. Although turn 11 seems like a long way from the finish line, you need to make sure to get a good run off of it so that you have as much speed built up by the time you start your timed lap. Make sure to start turning left as soon as you cross the finish line in order to round turn 1 along the apron. You're pretty much at full throttle in 3rd gear until you pass turn 1A, lifting momentarily as you approach each of the turns.



I find a setup that is a tad loose helps to get me around these early turns while near full throttle. Here I'm at 125mph rounding past turn 1. You need to cross through both turns 1 and 1A near the apron or you risk running up into the grass along this stretch.



Accelerating up to 130mph approaching turn 1A. At this point I get off the gas some and then begin to brake for turn 2 as I reach the distance markers along the left. As you'll see, I didn't brake soon enough nor get myself enough over to the left to make a clean entry into turn 2.



Whoops. It's quite easy to botch a turn at some point around this track. I didn't slow down fast enough and came into turn 2 too sharply. I therefore had to slow all the way down to 46mph and came out a bit wide. This is one of the two places where I'm most likely to run off the track I find. Ideally you'll be rounding the turn along the apron and making your entry from the left side of the track, not in the middle as I did. You should be able to stay above 50mph through this turn. I use all 4 gears at Sears Point, shifting down to first around all of the slower turns.



Topping out at 93mph in 2nd gear before braking into turn 3. You can normally squeeze out a few more mph here but I didn't due to botching turn 2 earlier. Though a bit unrealistic, you can straighten out your line into turn 3A by cutting over the grass in turn 3. I do so at 70mph. Careful not to get loose here.



This is my favourite part of the course, since you're accelerating into turn 3A blind as you crest the hill. Cool! After straightening out of turn 3, you begin to turn right immediately, aiming to cut a bit onto the grass as you approach the top of the hill. Keep turning! As you reach the top you'll find yourself right on or over the apron of turn 3A, heading downhill towards turn 4. Don't get on the gas too quickly here or you might get a bit squirly. You can round this turn at 70mph or more. I'm at 73mph at this point.



Maxing out at 96mph in 2nd gear before braking for turn 4. This is pretty easy to navigate and you shouldn't have to slow below 50mph, though I manage to do just that by slowing to 48mph. Don't take this turn too wide coming in or you won't be able to get a good jump through turn 5.



Powering through turn 5 at 100mph in 3rd gear. Make sure to stick the apron or you'll have to let up off the gas early in order to drift to the right for the Carousel. Despite what the manual says, you can take this turn at full throttle. Hey, it is a sim after all.



I reached 119mph before braking into the Carousel. There's a slight rise between turns 5 and 6 so be careful not to drift over to the right too quickly or you may find yourself running right off the track heading into the Carousel. Normally I top out between 115-118mph at this point. This is probably the easiest part of the track and you should be able to round it along the apron at 85mph or above. I didn't brake hard enough and had to take the first half of the Carousel fairly wide, though I did manage to get a good jump out of it.



The fastest part of the track is the long straightaway before turn 7. This is also potentially the most dangerous, since if you're even just a shade late in braking, you risk disaster. Though difficult to see in this thumbnail, I brake when I'm between the 2 sets of skidmarks. I reached 146mph at this point and normally top out around this mark. You can either come into turn 7 wide and accelerate out faster on a straighter line, or you can round it along the apron. How I take it depends more on if I slammed on the brakes in time. On this lap I happened to take it along the apron and actually bumped the inner wall a bit. On either line you should be able to carry a speed between 45-50mph.



Here I'm at 100mph heading into the Esses. You'll want to keep your speed between 98-100mph through this section. I run through turn 8-8A in 2nd gear. When you come out of turn 8, throttle back a bit sooner to straighten yourself out quicker. I find this helps me to accelerate right through turn 8A at over 105mph and carry a good head of steam around turn 9.



Coming out of turn 8A standing on the gas. I'm at 112mph at this point in 3rd gear. You can actually let your right front tire drift onto the grass a bit as you're coming out of turn 8A to get you straightened out a bit more quickly. Linger on the grass for only a second though, or you'll end up sticking there and getting loose.



For me this is where things begin to get real tricky. I'm at 134mph rounding turn 9 in 3rd gear. I find I have to feather the throttle a bit around turn 9 so that I don't swing too far around it and come into turn 10 too sharply. Normally I either come in too hot and run off the track onto the grass around turn 10, or brake too much and lose a lot of speed down the short straightaway to turn 11. It's important to have a setup that settles itself quickly for this segment of the track since you're shifting weights around rapidly at fairly high speeds.



Here comes the acid test ... Yeehah! - I made it through turn 10 alive. It's helpful here to cut a bit across the grass. This may get you a bit loose but should help to straighten you out more quickly. Try and keep your speed over 100mph around this turn. I managed to round turn 10 at 104mph but came out too soon and had to stay off the gas to avoid running onto the grass. I shift down to 2nd gear coming out of turn 9.



I'm at 128mph here in 3rd gear, braking when I near the 2nd last Goodyear sign on my left. The pit wall is a bit hard to see until you're up close, so be sure not to drift to the left approaching turn 11. I slow to 38mph around the last turn but you should be able to handle it at 40mph or so. Like turn 7, turn 11 can be approached either wide or closer along the apron. I take it whatever way I can since I usually approach turn 11 just hoping I don't hit the wall.



Click button to download a replay of this qualifying run (81kb - apologies for the length but I kick up some turf which adds a lot to the size of a replay).

Track Tips

As you could probably tell from my description of the lap above, I'm not exactly that great on road courses. Sears Point is a track you either love or hate, and I actually enjoy it quite a bit, but it's a rare lap that I run smoothly from start to finish.

Sears Point is a lot more fun to drive in NCR2 than NCR1, especially while in traffic. It seems to me that the AI behaves a lot more predictably, and the track seems a bit easier to navigate as well. To me there are a bunch of places where you can try and make a pass by the AI. The best places seem to be as you approach a sharp turn, like turns 1, 7 and 11, since the AI at times take these turns quite wide. Turn 4 is also a great place to pass on the inside, and the AI doesn't get much of a jump out of this turn so you can also work your way to the AI's inside through turn 5. I avoid passing attempts around other parts of the track.

You almost feel like you need to have radar when running in a pack around Sears Point. It's easy enough to follow someone in front of you, but when you're negotiating left and right hand turns with a car close behind you as well, you need to be aware of your position at all times in case the AI is trying to work its way underneath you. Watch closely when you fall off the pace or veer off the line a bit and assess when you do if the car behind you has now got a fender on you. My policy is better safe than sorry.

When racing longer races here, simply drive to survive. You must concentrate lap after lap in order to avoid getting all 4 onto the grass. This is easily the most difficult track to run, and would be enough of a challenge if you had the track to yourself. On race starts, beware of the field slowing down sharply as it approaches turn 11 soon after the race goes to green.

The AI at 100% isn't all that fast here, so it is fairly easy to take the pole and, "theoretically" lead from start to finish. I say theoretically because it is so damn hard to run fast lap after fast lap to the checkers. This is a track where the AI will kill you with consistency. The AI never brakes too late, never accidentally swings wide through a turn, and thus never gets off it's merciless, predictable pace. Earnhardt & Co (for those who've asked this is simply a term I use to describe the group of drivers typically qualifying in the top 5 from the default drivers list) will qualify in the neighbourhood of 1:41.3 seconds, so the qualifying run included here will get you on the pole with room to spare. It's also quite easy to make room between you and the rest of the field on the first lap, since the AI takes a while to get up to speed. Thus you can find yourself with a commanding 5+ second lead after just 1 lap. Given that the AI runs hotlaps of only 1:41.0 seconds, you could theoretically be running away with it with your hotlaps approaching the sub-1:39 second range. The challenge to you is to make this lead stand to the end. Good luck!

Setup Tips

The setup advice below will hopefully lead to a fairly stable setup. It seems to me that most setups here are a bit loose, and mine are no exception, but unless you're on the grass you should be able to stand on the gas coming out of the turns without worry about getting loose. There isn't much difference between my qualifying and race setups, except for a slightly shorter 4th gear. I'll say more about gearing a little bit later. I'm sure Sears Point setups can be quite varied, since you can tune them to suit the wide variety of driving styles for this track. I simply aim to make right-hand turns as easy as possible.

Tire pressure

Tire pressures are set very similar to the stock ACE setup, which is a fairly decent setup, in contrast to most of the stock setups. My RF pressure setting is a bit lower, and my left side settings are each a notch below the ACE setup settings. I find that I can run hard for the first 10 laps (I don't usually since this only increases the chances of my hitting the wall), after which tire wear is such that I hold back to 1:41 second laps. By lap 20 or so my RR tire is nearing yellow and my race setup is getting fairly loose, with lap times in the vicinity of 1:42-43 seconds. If I end up taking damage during a race at Sears Point, it's usually in the few laps before pitting.

Shocks

My shock settings are stiffer than the ACE settings, with the RF and RR settings the same and the LR only a bit softer than the LF. This setting seems to handle the shifting the car's weight around pretty well, disturbing the handling for a minimal amount of time.

Everything else

Everything else? Whew, that leaves a lot for a Sears Point setup. Spoiler angle is set to 70°, with lock at 18°, though I find anything from 16-18° pretty comfortable. I throw all the weight I can to the right in an effort to make turning right easier. My trouble spot around Sears Point is the transition from turn 9 to 10, so I strove to make a setup that handles this segment well, and setting full right bias seems to do the trick for me. I also use no cross weight and, compared to the ACE setup, a modest rear bias around 49%.

Gear settings are very important at road courses, and I suppose are largely a matter of personal preference. I use all 4 gears at Sears Point, with 1st gear set at 9.00, 2nd gear at 6.90, and 3rd and 4th gear set closely together at 5.40 and 5.00 respectively. In a qualifying setup I set 4th gear to 5.20, but this makes very little difference since I'm only in 4th gear for about a second heading towards turn 7. I guess you can set up the gears so that you only have to use 3 gears, eliminating either 1st or 4th to reduce the number of times you need to shift. I've never tried this myself but my guess is that you'd lose torque coming out of the turns this way.

With this gearing arrangement you'll be spending most of your time in 1st and 2nd gears, shifting to 3rd only from the finish line to turn 2, between turns 5 and 6, out of turn 8A and through turn 9, and heading towards turn 11. You shift up to 4th only while approaching turn 7. I find that this arrangement has me shifting gears around the easier parts of the track, so mis-shifting is never a problem.


The Grooves

Lines around Sears Point? There's only one I'm glad to say. Don't look to get yourself 2-wide for any longer than you have to, since this track is tough enough to survive without other cars getting in your way.

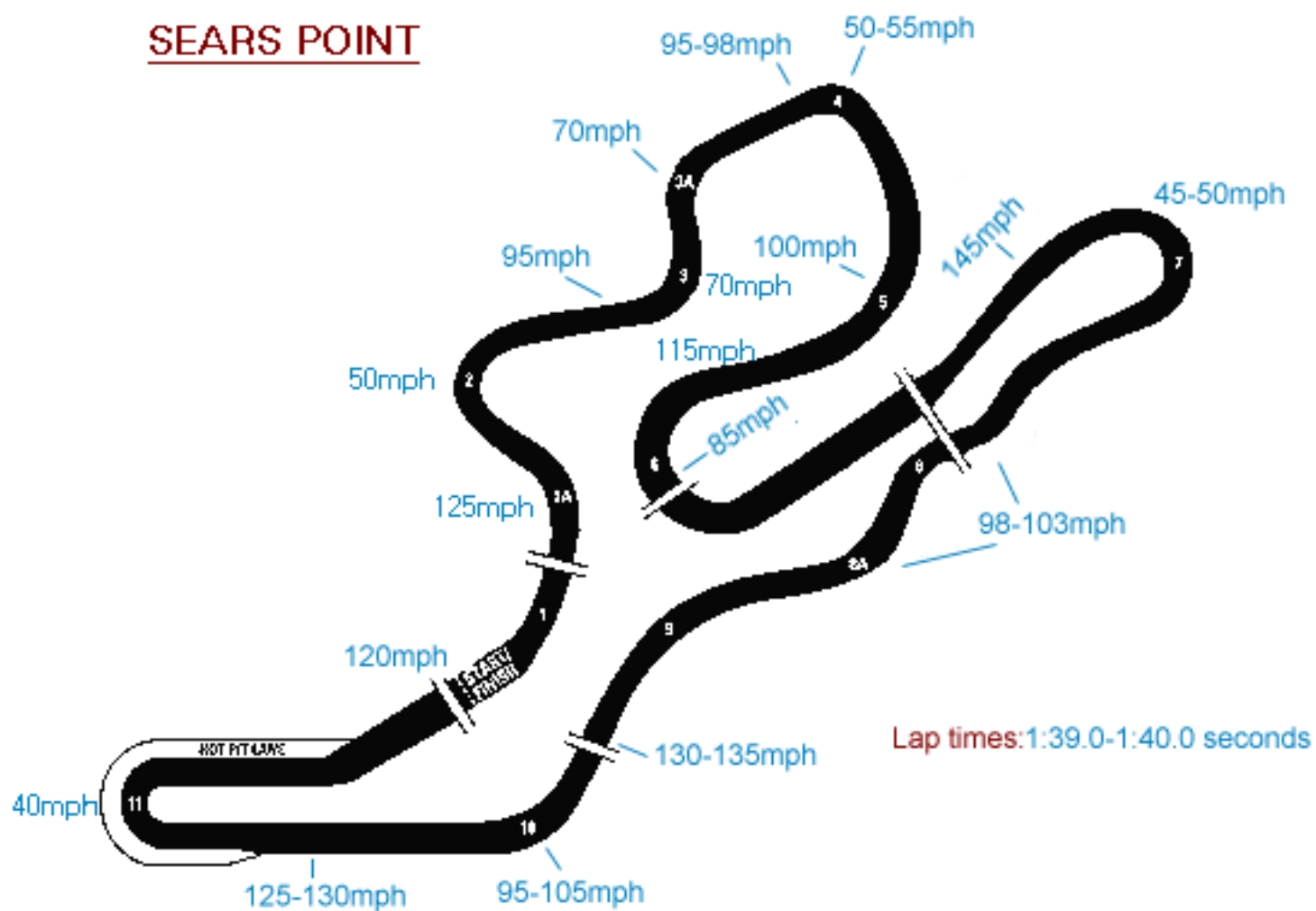
 Click button to view an overhead map of Sears Point with the various speed benchmarks superimposed.

 Feel free to send me any comments you may have.

 Click button to return to Setups page.

 Click button to return to front page.

SEARS POINT



Talladega



Track Vitals

Qual. time: 49.052sec.

Qual. speed: 195.221mph

Refuel lap: 45

Tire lap: 45

AI tire lap: 42-45

Wheel spin: No

Pit exit speed: 125mph - careful, it's quite narrow.

A Lap Around Talladega



Crossing the finish line at 198mph. Every last mph is crucial on this track, so you want to be at least 197mph at this point. Your first qualifying lap should be used to build up as much speed as possible.



Topping out at 200mph before turning into turn 1. As everyone knows, keep your foot to the floor at all times when qualifying.



Slowing down to 190mph at the slowest point around turn 2. Smooth is the key word at Talladega - you want to minimize the number of times you have to fiddle with the wheel left-and-right as you round the turns, since this only bleeds off precious speed.



The fastest spot on the track is at the end of the back straightaway. This actually depends on what you have the wind setting at (a south wind will slow you down the backstretch but speed you up into turn 1). With no wind I've topped out here at 204mph. I begin to make my cut into the turn so that I cross the first skid mark near the middle of the track. Check the *n2tala-q* replay to see what I mean.



The fastest line (IMHO) around Talladega will have you cresting the turns with your left side tires on the apron. Here I'm at 193mph and on a "perfect" lap would have my tires just over the white line at this point, as I did through turns 1-2. I didn't manage this and swung out a bit wide, increasing the distance travelled ever-so slightly. Further into the turn I slow to 190mph, which is pretty typical for me.



Cross through the middle of the tri-oval on the apron as this will give you a slightly straighter line out of the tri-oval. This was more apparent in NCR1 with the very sharp tri-oval. You want to be at 197-198mph at this point so you can cross the line at 198mph, or even 199mph if you've nailed one. Here I'm at 198mph but didn't quite get up to 199mph by the time I crossed the line.



Click button to download a replay of this qualifying run (20kb).

Track Tips

By far the most popular track of the online racing community, this is my least favourite. I mean, what sorta kicks can you get when you're running straight most of the time? Driving is a 2-legged exercise! The track in NCR2 is improved tremendously from what we knew and loved(?) in NCR1, and you actually need a decent setup to go fast here. A modicum of skill is also required to get yourself through the corners. But aside from that Talladega is still pretty much a place where you catch up on your shuteye, IMO.

The name of the game at this track is speed - you can't get enough of it. You need to sustain your momentum as much as possible, getting through the corners as smoothly as possible so that you scrub off the minimum of speed. To do this you need to develop a setup that gets you into the corners quickly without being too loose.

If you notice that your car is weaving to and fro as you enter a turn, your setup is too tight. You'll need to loosen it up so that it enters the turns more smoothly, and I'll get to this in the Setup Tips section.

The fastest line through Dega still seems to be where you skirt the apron as you exit the turns. It's not quite as dramatic as NCR1 where you were riding well underneath the white line, but you want to run a line that has your left sides drifting down over the white line. This cuts down the distance travelled slightly and, to me, helps to get your back end around more quickly without slowing you down. Be careful not to drift down so far that your right side tires get on the apron, as this will slow you down and you risk being kicked back up the track, throwing off your momentum.

Racing the AI at Talladega is still an unsatisfactory experience, highlighting many of the AI's weaknesses. The AI checks up noticeably into turn 3 if you're along the inside of a car, which pretty much leaves him stranded. Unfortunately, if other cars were behind you then they too react to the AI car checking up, and you'll find yourself racing all by your lonesome with the rest of the AI field far behind. Boring.

You can now draft with an AI car more effectively, since the AI no longer veers out of your way if you're following close behind it. However, if you plan on catching Earnhardt & Co. then don't waste your time drafting behind the likes of Marcis or Burton (you're pick), you'll get nowhere and in fact the laps you run behind a slower AI car will still be slower than the laps you can run on your own. The fastest AI cars still seem to be unrealistically fast on some parts of the track, and too slow on others.

Beware of the field slowing dramatically into turn 1 at the start of any race at Talladega; you can gain quite a few positions if you remember to drift to the outside of the field before they all slow down.

The qualifying run replay is of a 49.052 second lap, which isn't enough to get you on the pole. In fact you'll be lucky to sneak into the top-5. The AI qualifies at 48.9xx seconds, and runs hot laps in the vicinity of 48.6 seconds in the lead draft. If you're not one of the leaders you're going to have a hard time staying near the front.

Setup Tips

Changes to your Talladega setup have a more absolute effect than changes to other track setups, since differences in driving style are minimal here. Everyone is pretty much as fast as everyone else at this track, and drafting is the great equalizer. Things sure are simple when you don't have to brake, aren't they?

A gauge you can use to determine if you have a good setup for Talladega is to listen for how much tire squeal is generated when you enter the turns. The less tire squeal, the better. As mentioned earlier you need a setup that gets you down to the apron quickly without being too loose to handle smoothly through the turns.

Tire pressure

Max out the tire pressure to 60psi all around. This will minimize the amount of drag produced by your tires. Talladega is steep enough to keep you down in the turns.

Shocks

As with the tires, max out your shocks as well. You want maximum speed, so if you try and make your car handle better into the turns by softening your shocks, you're doing so at the expense of speed. There are other ways.

Everything else

Camber settings are up to you. I find they don't have much of an effect here once you start varying from a setting that produces even tire temps. The rear spoiler should obviously be set at 40°. For qualifying, set 4th gear to 3.5. I've tried 3.6 and never hit 204mph with it down the back straight. If you're using random weather and the winds are strong (they're always to the south or southwest at Dega - guess the weather isn't *that* random) you may want to go with a 3.6 4th gear. During a long race you'll definitely want to go with a 3.4 fourth gear.

The rear weight and cross weight are what will likely differ the most from setup to setup. These are the settings I used to try and minimize the amount of tire squeal I was getting into the turns. Unlike in NCR1, you'll want to set some weight to the rear. In an effort to generate more heat in your RF tire, you can add a little cross weight as well. This depends to what degree you set weight to the rear and if you feel adding cross weight helps a lot. I've fooled around with most of the weight to the rear and a maxed out cross weight and wasn't getting laps any faster than with a 0lb cross weight setting and more weight set forward.

The Grooves

The inside and outside lines at Talladega are clear enough that I don't think much explanation is needed. Dega is an easy enough track to race at that adding another car to one side or another doesn't really complicate things much. Despite how easy it is, it generally isn't a good idea to get side-by-side here; your lap times will really suffer if you're not nose-to-tail.

You will find though that if you are on the inside of another car heading into turn 3 that you may have to lift off the gas some to avoid swerving up the track. You'll never run into an AI car if you drift up, since it will likely have checked up to avoid you altogether, but another human driver wouldn't.

The other thing to note when racing alongside another car is that, when heading into the tri-oval, it's important for the car on the inside to make his line through the apron and out to the first lane heading out towards turn 1. The car on the outside cuts through the hub of the tri-oval in the first lane (between the white line and the first dashed line) and exits out of the tri-oval into the second lane before drifting up along the wall.



Click button to view an overhead map of Talladega with the various speed benchmarks superimposed.



Feel free to send me any comments you may have.

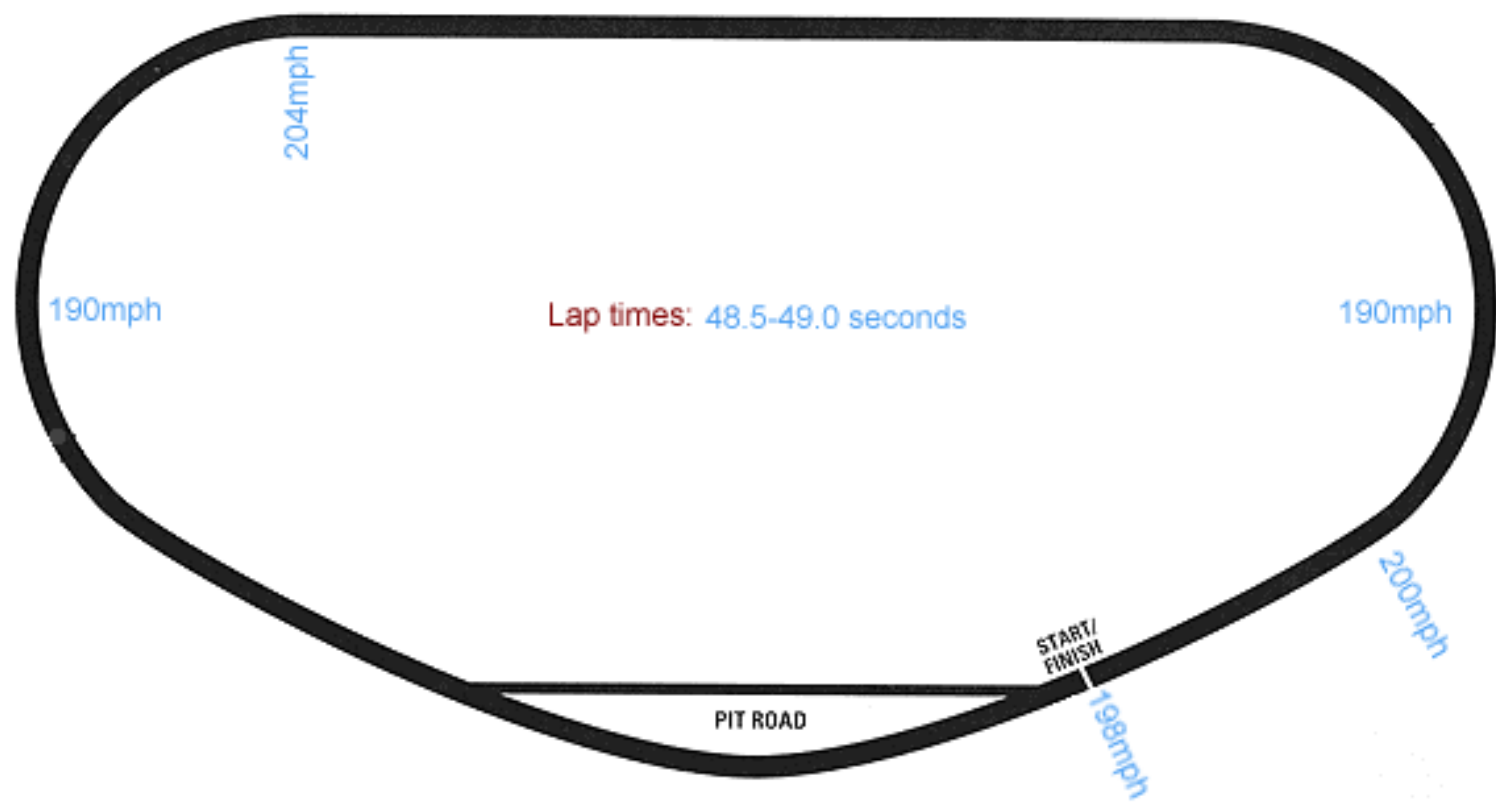


Click button to return to Setups page.



Click button to return to front page.

TALLADEGA



Track Vitals

Qual. time: 1:12.838sec.

Qual. speed: 120.003mph

Refuel lap: 30

Tire lap: 30

AI tire lap: 31-34

Wheel spin: Yes

Pit exit speed: not applicable

A Lap Around Watkins Glen



On a qualifying run, make sure you take turn 11 wide on the warmup lap so that you have as straight a run as possible to start your timed lap. Here I'm at 137mph to start things off at Watkins Glen.



Topping out at 159mph heading downhill on the front straightaway. Top speed here is around 20mph more than the speed at which you crossed the start/finish line. Make note of the brake markers on your left at this point, braking hard as you reach the 600' brake marker.



Turn 1 is the most difficult part of the track to handle, since your car gets unsettled the most here, with a lot of weight being thrown up front. You don't have to stand on the brakes that hard, easing up off the brakes some when you reach the 200' marker so that you can begin your entry into turn 1. Here I'm at 73mph.



Heading towards turn 2 at 130mph. You need to feather the throttle a bit as you cut into turn 2 in order to allow the weight transfer to settle a bit. If you keep stomping on the gas here, you'll swing wide out of turn 2 and this will force you to slow down for turn 3. I think turn 2 is the most important turn at Watkins Glen, since pooching things here will rob you of a lot of speed over the fastest portion of the course that's coming up.



Accelerating through turn 3 at 135mph, the throttle wide open all the way until turn 5. I could have been a bit closer to the curb here. You need to be along the right side of the track coming out of turn 2 to set yourself up for a good run along the curb. If you're over to the left heading towards turn 3 it means you came into turn 2 too fast.



Topping out at 176mph down the back straightaway. Turn 4 is a cinch so I skipped it, but basically follow the skid marks with the throttle wide open and you'll be able to accelerate up to 175mph or so everytime. You don't need to slam on the brakes at the 600' marker, but do apply them evenly until you slow to 110mph or so.



Here I'm at 112mph as I make my break into the inner loop just past the 200' marker. Although the inner loop isn't nearly as tight as it was in N1, it's still best to cheat the corners a bit by crossing over the grass. I'm still on the brakes through here, though only lightly until I bring my speed down below 100mph.



As soon as you're heading straight into the inner loop, you'll want to turn hard left at around 95mph, which is what I'm at here, cutting across the grass through both turns 5 and 6 as you straighten out in the inner loop. Don't dive too deep into the inner loop, no more than a car length from the left edge, otherwise you'll have to slow too much to get yourself back out. You don't have to slow below 95mph in the inner loop.



Making my way out of the inner loop at 98mph. Again, cut across the grass as you make your exit since this straightens your line out, allowing you to get on the gas sooner. For me turn 8 is a bit blind since the wall isn't drawn until I'm just passing it. Cutting across the grass coming off of turn 7 ensures that I'll clear the wall past turn 8 easily.



Accelerating up to 110mph heading towards turn 9. Depending on how hard you drove out of the inner loop, you can top out up to 115-120mph here. You don't need to apply the brakes to slow for turn 9 unless you're coming in too hot - normally letting the tires scrub off the excess speed is sufficient. Maintain a speed of around 105-108mph through turn 9, getting back on the gas slowly as you come out of the turn.



Don't get back on the gas too soon around turn 9 or you'll have to check up to stay on the track, spoiling your run down this straightaway. Here I've reached 160mph down the Glen's third straightaway. You don't need to brake until you reach the 500' marker. Apply the brakes evenly so that you're ready for turn 10 by the 100' marker or so.



Making my way through turn 10 on two wheels at 93mph. Unlike in N1, you'll want no part of the turf here, as it'll only throw you back up the track and onto the runoff area between turns 10 and 11. It's ok to get your left side tires on the grass but it doesn't serve any advantage. Looks neat though, doesn't it? Take this turn between 90-95mph.



Accelerating back up to 115mph before the Glen's final turn. You'll still be heading left as you brake for turn 11.



You only have to tap the brakes to slow enough for turn 11. Get yourself over to the left side of the track before making your cut into turn 11 so that your line is as straight as possible. You shouldn't have to drop below 90mph through turn 11 - I'm at 93mph here. This is another important turn, like turn 2, since messing things up here will rob you of a lot of speed down the front straightaway.



Click button to download a replay of this qualifying run (30kb).

Watkins Glen had a complete makeover for Nascar Racing II, and the results make for a much easier run around this fast road course. The esses aren't as tight and the inner loop no longer makes you feel like you're driving into a shoe box. Despite the changes to the layout of the track, the speeds you can run at here are very similar to those in NCR1 (118-120mph).

Watkins Glen is a lot easier a course than Sears Point to drive consistently, so the chances of you making a slight mistake that'll cost you a car is far less likely here. Also, the AI speeds at 100% are a bit slow, making for a somewhat unchallenging race, unlike at Sears Point. The AI is just as consistent here as there, but you'll find it very straightforward to get as consistent, and slight slip-ups can be more than compensated for by your superior speed.

The big problem with the AI is that it's too slow in some turns, yet is still able to accelerate to top speeds that are similar to yours. For instance, around the outer loop the AI only maintains a speed of 100mph or so. You can close on the AI easily through here since you'll be keeping speeds of 5mph or more faster through this turn. However, the AI is still able to accelerate to the same speed as you down the straightaway towards turn 10. This throws me off a bit at times, where I'll pass a car well before a turn but find it somehow on my inside as I'm about to make my cut into the turn.

Despite this, the AI at 100% is about a second off the pace, turning laps no better than 1:14.5 seconds, so you'll have no problems maintaining a healthy lead. There are several good places to pass AI cars. One of them is into turn 1, as the manual states. If you're well alongside a car down the front straightaway, you can easily take the line away from the AI into turn 1. The AI will predictably check up and you'll be on your way. The manual also says the back straightaway into turn 5 is a good place to pass, but I'd say this is the worst place. The inner loop is difficult enough to manage on your own that you should never try and complicate it by running a different line into turn 5. The AI doesn't exit the inner loop with much speed so simply wait until you get a better run out of turn 8 to make your pass.

Turn 9 is another easy place to pass, and is usually done when you get a good jump out of the inner loop. The AI stays close to the right of the track from the inner loop to turn 9, so it's relatively simple to get around on the outside through turn 9. The last good place to pass the AI at is turn 11, since again the AI doesn't maintain much speed around here. If you didn't manage to get around a car through turn 9, bide your time behind it until you approach turn 11, where you'll quickly gain on the car and either pass underneath him through turn 11 (the AI takes a line a bit wide of the apron) or preferably as you straighten out down the front straightaway.

On race starts, the AI bunches down along the inside of turn 1 and slows quite a bit, which will allow you to gain several positions as you make a pass on the outside if you didn't start on the pole. It'll take a few laps for the field to string itself out, so bide your time by concentrating on the track itself, not on the car in front of you. If you focus on the car in front you'll likely miss your braking point into a turn and run off onto the grass. One subtle change you'll notice in NCR2 is that when you get the pole you now start on the right side of the field, as it should be.

Like I said before, the AI is very consistent here, as it is at all the tracks. The AI's consistency is what kills you at Sears Point, but here the AI is a bit further off the pace so that infallible consistency isn't much of a concern. The AI's best qualifying effort is a 1:13.5x second lap, which is fairly straightforward to beat, and its race speeds are no better than 1:14.5x second laps. So if you start on the pole you'll be able to build up quite a substantial lead before your first pit stop. Yellows are infrequent, unless you bring it out yourself. To make the Glen a bit more of a challenging race experience, I'd recommend bumping up the default RELS to 103 and the BLAP value so that the AI qualifies closer to the 1:13.0 second mark.

Setup Tips

The setup advice below will lead you to a good setup that can turn out laps of 1:13.5 seconds for its entire fuel run. Over the first 20 laps or so you can crank out laps closer to the 1:12.0sec. mark as well, but there's little point in doing so. The rear tires wear out faster than the front, so a loose condition will develop somewhere around lap 20-25. One thing I can't figure out is how to last a full 34 laps on one tank of gas. I've tried really tall gear ratios and running well off the pace and the best I've done is 31 green flag laps before running out of fuel. Normally I have to come in on lap 30.

Tire pressure

Tire pressures are all around 50psi, with the front tires a pound or two softer than the rear tires. The LR tire gets the most wear, turning yellow on lap 24-25. The LF turns yellow a lap or two later. Remember that there are twice as many right-handers as there are left-hand turns at Watkins Glen so you have to switch your thinking around when it comes to setting up your car.

Shocks

Shocks are set fairly stiff across the board, around 80% I find is good. The rear shocks are a bit stiffer as this helps me get around the turns quickly on fresh tires. However, this only hastens the loose condition that develops in the setup, so I'll probably even out the shock settings to promote more even tire wear.

Everything else

LF camber is set at -2.1° and RF camber is -1.6° . I throw all the weight over to the righthand side, which makes turning right a breeze. This does result in a car that takes longer to settle for lefthand turns though, which is most notable as you setup for turn 3. With a more balanced car you don't have to step off the gas much at all through turn 2 to setup for turn 3. Still, shifting all the weight over to the right reduces the amount of tire wear on the left side so I stick with this. Rear weight bias is around 48%. I don't use any cross weight and the spoiler is of course at 70° . Wheel lock is 12° .

Gearing is very important at road courses, and I set them up so I'm not shifting around difficult parts of the track. Gear ratios are: 8.0, 6.0, 4.9 and 4.0 for 1st through 4th gears, with a 4.2 4th used for qualifying. I shift up to 4th down each of the 3 straightaways, and on the front straightaway this will have you shifting up to 4th for just a second before you have to downshift twice into turn 1. This is what I'm used to but you may want to lengthen 3rd gear to 4.7 or thereabouts so you don't have to worry about shifting 4 times heading towards a very difficult turn. I find this only transfers this (slight) problem to the straightaway leading to turn 10, but a taller 3rd gear does seem more conventional.

All the turns are run in 2nd gear, and I shift up to 3rd as I head into turn 2, as I come out of turn 9 and as I approach the start/finish line out of turn 11. First gear is only used to get into and out of pit road, and to recover when you mess up.

The Grooves

Nope, no lines here other than the one you take during practice. There are plenty of places around Watkins Glen that you can pass, but generally staying alongside someone is something you want to avoid if at all possible. You will be running side-by-side during race starts when you start off double-file, so practice these starts until you're comfortable being on the inside or outside in traffic. Turn off pace laps, damage and yellows and have at it.



Click button to view an overhead map of Watkins Glen with the various speed benchmarks superimposed.

WATKINS GLEN

