

MID-OHIO “RACECRAFT” OUTLINE

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INTRODUCTION

You have your “wiz-bang go-fast” race car completed, polished, and ready to go. The S.C.C.A. regional racing license just came in the mail. Everything is loaded up on the trailer and you are ready to attack all those other race cars this weekend at Mid-Ohio.

But, are YOU really ready to race?

By the time you have reached this stage of the game, you might have had dozens of drivers schools and your “novice” races under your belt. You have refined your “line” around Mid-Ohio and feel that you have pretty much flat-lined your learning curve.

In reality, this is the most critical stage in your learning curve. What happens now may impact your whole future racing “career”. Once the green flag flies a whole new set of variables come into play.

We are going to be looking at my version of the art of “RaceCraft”. It’s the next step in your learning curve. Where driving fast is not the main thing we are thinking about when we are out on the track. The racing line, apexing corners, brake points, gear selection should all be a “Reflex” action or “Acquired Skill” by now. From now on we are going to be thinking about new and different stuff. This new stuff is what gets you on the front row in Qualifying, and allows you to actually make that pass on the last lap. And most important of all, this new stuff helps to bring you and your shiny race car home is one piece.

I want to cover the following, in this classroom session today:

- How to approach the “Practice Session”
- “Qualifying” getting the lap time you think you should.
- The “Start”, possibly the most critical part of the whole race.
- How, where, and when, to make a pass, and knowing when NOT to try.
- Learning the art of an “Aborted pass”.
- “Strategy” frequently talked about, rarely used.
- Going home with a straight Porsche.

PRACTICE

“NEW” to you Track

Each year I try to add one new track that I have never been to before. It's just my own little thing but I think its kinda fun. Broadens my horizon and all that.

But I approach a new track totally different than say Mid-Ohio or Nelson Ledges.

- What can you learn about the track before you arrive?
Track “videos”, maps, SCCA “Fast Lap” articles all help.
- This is not the time for bedding in new brakes, tires, or making major changes. Keep focused on your primary goal, learning a new track.
- Stay out the whole session, start slow, and build knowledge and speed.
Don't pit, make your vehicle changes after the session.
- Find a “Veteran” of that track. Follow, but don't make it obvious.
They will change their lines, if they know you're following them.
- Don't race with other cars, at this point of the weekend, it's a waste of your own track time!

FAMILIAR “HOME” TRACK

Don't waste the session “driving around real fast” if you already know the track. You have an advantage here, your lap times are not going to come down much further by flogging the car around for the entire session. Do this instead!

Prepare a “plan” for the session. Write it down! Its like the Internet, “Where do you want to go today” Now is the time to “Dial in the Car”

- Tire temps and pressures, camber, shock changes, now is the time to see what needs to be done. Did you “guess” right?
- Break in the new Brake Pads / Cycle the new Tires
- Do one or two “Fast laps” just to make sure everything is OK. Then back off on the brake points. Save the car!
- Everything “dialed” in? Try different shock settings. Got any old tires that are coming off anyway, try dropping one down to 10Lbs. Whats that feel like?

OR

Now is the time to prepare for the unusual “stuff” that happens during each and every race. If you have never tried late braking into turn 7 on the inside line, how will you know how deep you can really go!

- Practice starting a race at the 1st. turn
With nobody behind you, drop down to 2nd gear and see what your approach speed at turn 1 will be. Maybe it's flat out and maybe not.
Remember, you are on cold tires at the start of a race. Do this early in the session (hot tires = false readings)
- Practice your “passing lines” (More on this later)

- Practice your “passing line braking points”
- Practice your “rain lines”, even if it is a dry session. How would they change with more or less water?

QUALIFYING

ITS NOW OR NEVER TIME

I love to watch other drivers wasting away a whole qualifying session “racing” with other people. It just results in my grid position being that much higher!

Remember why you are out there in this session, it is to go as fast as you can for just ONE lap. Nothing else matters at this point of the weekend.

Do not change anything major for this session. Just go out and drive the car as fast as you can go as it is. If you missed the setup, don't fret about it the whole session. IT WILL NOT DO YOU ANY GOOD.

If you have a crew, and they know what you want changed, a short stop is fine. But keep it simple. Like a front tire pressure change.

I have found that getting to the grid early does not always create an open track position. By the time the last cars are on track, you are coming around on them already. All it does do, is get you one more lap in the session, maybe.

While warming up during the first two laps, look for a gap in the cars behind you. At Mid-Ohio this is easy, look across the track coming out of the Keyhole. Slow down on the straights and let cars go by until you find a hole.

Its easier to drop back than to catch up to find a hole.

The single most important thing is to find a hole to do your fast lap. If you get lucky, go for the second or even third fast lap. I believe you WILL go faster with back to back fast laps. (None of us are F1 drivers)

If you crack off a personnel best good lap, PARK IT. You will be so excited you will screw up all the rest!

RACE

“SOAPBOX” TIME

My only goal when starting a race is to finish with a healthy straight car. If I have a chance to race closely with someone during the race, that is COOL. If I get around the car I'm racing with, that's VERY COOL. Winning the race is not bad either, but my most memorable races are the ones I did not win.

Preconceived plans for the start of a race result in frustration, or even worse, an accident. Start the race with an open mind for whatever happens, then adjust and react.

NEVER force an issue, I have heard so many people say they are going to out-brake Joe Blow on the first lap. Afterwards, everyone around them could tell it was NOT going to work. But they tried it anyway, usually resulting in two or more bent cars!

Be ready and willing to “ABORT” any pass you attempt. I'll say that again, Be ready and willing to “ABORT” any pass you attempt.

Drive hard during the whole race, but back off on your brake points, shift points, and cornering speed to take some stress off the brakes, engine and tires if you can. Drive hard, but to the new parameters. This helps to keep your concentration centered. (I have made most of my mistakes when I eased off too much)

Even 14 lap sprint races can seem to take forever to end, when you are by yourself on the track. (Hard to believe but true). And they are ALWAYS way too short if you are having a heated battle with someone. (Also true)

Be the driver people say “I'd race with 'em any day, drives hard but always will give me just enough room to race”.

Please don't be “That idiot is dangerous”.

When all is said and done, I would rather be spending my time and money making my car go faster between races than finding a way to get it fixed.

PASSING

ALL GT3 DRIVERS MUST NOW LEAVE THE ROOM (my class)

The following techniques have been successful for me. From 100 hp. ITB cars up to 300 hp. GT3 cars. It's all relative. All of them work when lapping back markers. Only SOME of them can work on competitive cars.

At the first turn of any race, the cars stack up (the accordion effect) into two lanes usually. All the cars except the leaders are going slower than if they were by themselves. I have passed three, four, sometimes even five cars by forming a third outside lane and just driving around the cars in the two inside lanes.

As the cars come off the apex they will be drifting out toward YOU. Do not be greedy, make sure the last car you pass sees you and is able to give you exit room. Go one car too many and it will force you out to the grass because they will have no idea you are out there.

The only pass that occurs at the esses is one that has started out of Turn 1. If you are not next to the other car by the time you lean into Turn 2, back off (ABORT) and follow them through.

The Keyhole is not the place to pass unless the car in front of you makes a mistake. Your main goal here is to maximize your exit speed for the run down the main straight.

The end of the main straight on the first lap can be good for passing one or two cars. Some drivers are slow to get up to their racing pace. Take advantage by late braking on the inside right down to the apex. (You know the right brake point from the practice session, right?) You are slower out of the corner but who cares, you are in front of them. Also some accordion effect still occurs here, so you really do not lose much to the cars ahead.

If you are hounding a car right in front and it moves to the right on a defensive line. Keep them moving right by going right yourself, but at your brake point, angle left and follow on your normal racing line. One of two good things can happen, they overcook it and drift left going up the hill, you go inside on your faster normal line and have a good shot at them over over the hill. If you can stay with them over the hill, you got'em beat.

Or, if they stay tight off the apex at the end of the straight, open your steering a tad, add throttle and move to the left of them up the hill. They are going to be slow out of the turn because of their tight inside line and you will have them beat up and over the hill.

One of my favorites is the pass at the right hand turn at the bottom of the hill.

It actually starts when you come off the main straight. Late apex the turn so you are on the right edge of the track going up the hill, now sweep over the hill using the whole track. As you crest the hill add throttle and zoom down the hill and brake straight towards the apex. The poor car you are about to pass is going down the left side of the hill braking for the normal turn in point. You are inside of them before they even turn in.

If you do not get along side them before they turn in, they will not know you are there. YOU need to ABORT, and you will be real slow off the turn. This pass works very good on lapping back markers, but its not good against equal cars. Drivers see it coming in their mirrors and will block to the right coming down the hill.

I have never passed anybody at Turns 10A and 10B (under the bridge) unless they are running on two cylinders and just trying to survive back to the pits.

Turn 11 (onto the chute or into “thunder” valley) is a major passing point for back markers and pretty good for equal cars. The car in front dips through Turn 10B and moves left, braking and setting up for their turn in point for Turn 11.

You need to be right on their bumper as you crest the Turn 10A hill, turn in a little later for a late apex at Turn 10B. Stay to the right of the car in front as you late brake right toward the Turn 11 apex. You carry more speed to the apex and will get by.

The problem using this pass however, is that you are now about 10mph. slower than the car you just passed and it drives right on by you down through the chute. The “art” of this pass is to just barely get by them as you approach the apex, forcing them to lift to keep from rear ending you. Now both of you are 10mph. slower down the chute, but YOU are in front!

I have never been too successful trying to late brake people into the left hand sweeper. Except when it rains. Most people use the normal turn in point even when it rains, if they do, I just get right on their bumper in the chute and late brake aiming right at the apex. I’m in front before they even turn in. This also happens to be my normal rain line!

If I pass someone at the Carousel, its because they screwed up by running wide at the end of their braking over the hill. I tuck inside and they cannot recover.

Usually, I use the Carousel to time my exit onto the pit straight so I can be right on the bumper of the car in front. I lay back a little going in and concentrate on getting a good run out of the turn down to Turn 1. Even equal cars can be passed into Turn 1 if you get the timing correct. Remember to practice turning into Turn 1 from the inside lane. You have to be next to the other car before turning in or you will need to ABORT the pass.

After 120 races in the last 16 years I have been very aggressive but cautious. Those two words do not seem to go together but let me explain by saying I don’t hesitate trying to make a pass but I also don’t hesitate ABORTING a pass as soon as I have a doubt if the other driver knows I’m there.

I have taken to the grass, I’ve locked up all four tires, and I have put my car on its roof (one time) to keep from hitting the other guy. But I also have brought

home a straight car more often than some other very fast but not so cautious drivers.

STRATEGY

USING STRATEGY TO BEAT EQUAL CARS

It doesn't happen every race, and is successful even less often, but you should always be thinking about how to use some kind of strategy to help yourself beat the other guy.

We've all heard about people marking incorrect tire pressures on their tires, and that kind of thing. I prefer to use observation and surprise to find a way past cars I would not be able to pass on speed alone.

LULL THEM TO SLEEP, THEN ATTACK METHOD.

As you come up behind someone, start watching for a weakness that you might be able to take advantage of. Then just sit there and follow without zigging and zagging, staying on your racing line, they may forget about you, thinking you are happy to just follow them forever. Don't get too close, or they will try harder to stay ahead.

Then when you figure out where you have an advantage, set them up with your best exit off the last turn so you are right on their bumper, and try to make the pass. They may have been backing off just a tad not thinking you were ready to attack. That is just better for you!

WIGGLE AND DART AROUND TILL THEY SCREW UP METHOD.

Here, you are doing just the opposite, close the gap as fast as possible. Stay as close as you can, right on their bumper. As you go down the straights, faint left and right, make them watch their mirrors. Change your lines around the corners. They will have no idea if you are trying to pass or not. Keep them guessing. Just make sure you do not screw up yourself.

After three or four laps of this, they may make a mistake allowing you to just drive right by. Easiest pass in the world!

WATCHING THEIR EYES TO TIME YOUR MOVE.

When you have been following the same car for a while. Watch the drivers eyes if you can in their mirror. If you cannot see their eyes, watch their helmet. The idea here is to see when they look and what their habits are.

Every time they go down the straight they may look at you in the same place. If they do, time your move to make the pass just as they look away from you to the road ahead. By the time they DO see you, the pass is well under way.

FAKE A HAIL MARY BONSAI MOVE

I have done this a lot with back markers. Play your hand early as you go down the straight. Let them see you coming, brake real late right at the apex, but go into it with the idea of ABORTING if you need to. Sometimes they think you are SO crazy, they actually give away the inside line. Thinking you are going to use THEM to help yourself brake for the turn.

Remember, be aggressive, but always be ready to ABORT when needed.

KEEP WATCHING / OBSERVE EVERYTHING

I was following a Mazda RX7 with my ITB GTI and saw that he was pumping up his brakes twice before every braking zone. I was not going to be able to get around his faster ITA car, but I tried as hard as I could to stay close. I stayed close enough to him that he was not able to let up on his brakes. After six laps they were toast, he just waved me through at the end of the straight. Had I not pushed him as hard as I did, I would never have beaten him.

Same thing works with overheating tires. But it only works if you don't have the same problem yourself!

POSTRACE

THE WEEKEND IS OVER, NOW WHAT?

Do you stop learning once you have left the track? I don't think you ever stop learning as long as you keep looking for ways to improve you and your cars performance.

Keep a log, write down whatever comes to mind as soon as you get off the track and wind down. It might be about so and so's car gets loose towards the end of the race. Or your car might need more brake bias toward the front because you were locking up the rear tires going into the Carousel. What ever it is, write it down, its amazing what we forget by the time we get home.

Do you video tape your races? I was at the auto show with my car years ago and we had one of my tapes on the TV. A 20 year SCCA National driver was standing next to me and mentioned three different things he saw that have helped me get by other drivers ever since. My point is, watching your tapes closely can give you new insights of other drivers weak points, your weak points and can definitely help.

Look for and accept advice from others. Decide what YOU want to listen to. Tap everyone and every source for info. Be a sponge!

I hope this helps with the big leap into racing. I have tried to be as up front and honest as I could. Remember this, if I end up racing one of you in the future:

AL UNSER: My dad taught me everything I know about racing, unfortunately, he hasn't taught me everything HE knows about racing!

Little AL said this right after his dad beat him for the C.A.R.T. championship by ½ point.