



#### Do the Basics Well!

# NNJR Track Side Classroom Series VIR 2021









#### Disclaimer

The techniques shown here have been compiled from experienced sources believed to be reliable and to represent the best current opinions on driving on track. But they are advisory only. Driving at speed at VIR, or any other track, requires skill, judgment and experience. These techniques assume the reader has high performance driving knowledge and applies them as applicable to their level of driving experience.

High-performance driving can be very dangerous, carries inherent risks and may result in injury or death. NNJR and PCA make no warranty, guarantee or representations as to the absolute correctness or sufficiency of any representation contained herein. Nor can it be assumed that all acceptable safety measures are contained herein or that other or additional measures may not be required under particular or exceptional conditions or circumstances.







- Do the Basics Well
  - Why does it matter?
  - What are the "basics"?
  - How to improve?
- VIR Turn by Turn



### Why Focus on the Basics?



- Ross Bentley: People ask me what the main difference is between the best and the rest.
  - 3 things make the difference
  - 1. They focus on the basics. The advanced stuff is just doing the basics better.
  - They're committed to learning. They make learning an objective. They know the more they know, the better they will get.
  - 3. They prepare.

Speed Secrets Weekly 191



# Ross Bentley



- When they're working on the basics, they approach practice in a deliberate way. A focused way. And that results in them mastering the advanced stuff.
- The best drivers have a burning desire to learn more. They're learning sponges.
- Anything you can do to prepare beforehand will make the time you have behind the wheel more productive.

Speed Secrets Weekly 191



### The Big Idea...

- ... is there is no single, big idea
  - Progress is the sum of many small improvements
  - Any gain you can repeat—is excellent progress
  - As you get better, you go after smaller gains



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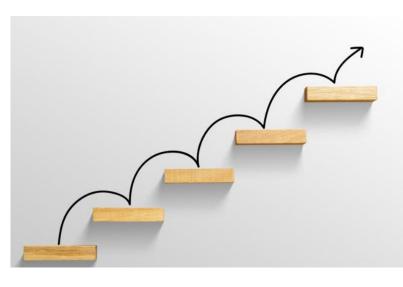




### What Are the "Basics"?



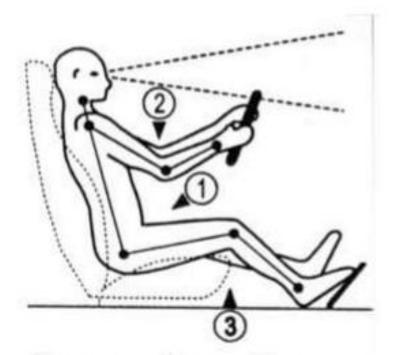
- Seating Position and Mirrors
- Line
- Use of Controls
- Vision
- Consistency
- Situational Awareness
- Learning focus / self awareness



# **Seating Position**



## Preparing to drive on the track:



Proper seating position



Proper hand placement







#### Start in correct seating position!

- Rearview Mirror
  - Adjust to see entire rear window
- Left Mirror
  - Rest head against driver's window
  - Adjust to <u>barely</u> see left rear fender
- Right Mirror
  - Lean right so head is under rearview mirror
  - Adjust to <u>barely</u> see right rear fender

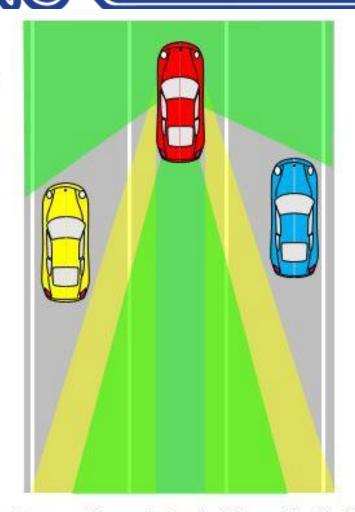




#### Proper Mirror Adjustment



Common



G. Plazer, "The Geometry of Automotive Rearview Mirrors—Why Blind Zones Exist and Strategies to Overcome Them," SAE Tech. Paper 950601 (1995).

# Seating, etc.



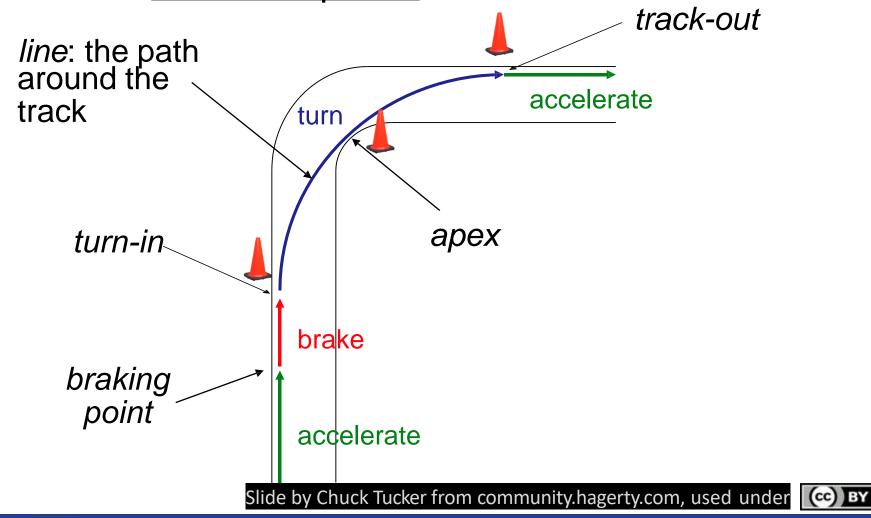
- Are you comfortable in the car?
- Can you easily see ahead? Behind? Both sides?
- Good control with your shoes?
- Hands? Gloves?
- etc.



#### The Basics of Track Driving



Use <u>reference points</u> to drive a consistent line









### Basics of Track Driving



#### Use an ABC rhythm

- Accelerate on the straights
- Brake while going straight, before the corner
- Corner (Turn) relax the brakes and turn
- Accelerate
- Brake
   \_\_ - - → some corners: just use less gas (lift)
- Turn
- Accelerate
- Brake
- Turn

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# M The Line





# The Line



- Which corner is coming up next?
  - Have I memorized the corner numbers/names?
  - Can I describe each one?
- Do I have a clear mental picture of each corner?
  - Can I visualize each corner?
- Do I use the full width of the track?
- Am I consistent in each corner?
  - i.e. Turn In, Apex, Track Out
  - Do I have enough Reference Points?

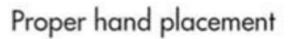


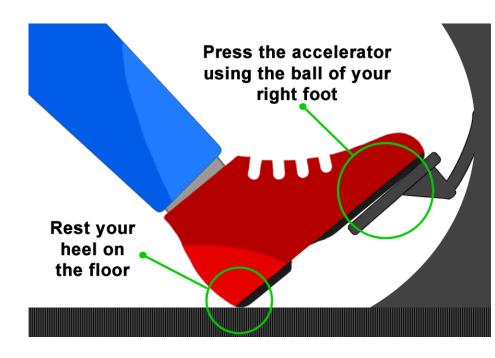
### Use of Controls



- Steering, Gas, Brakes
  - ""Wind", "Unwind", "Squeeze", "Release"
- Never rush



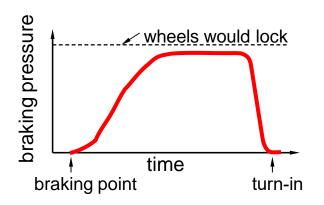


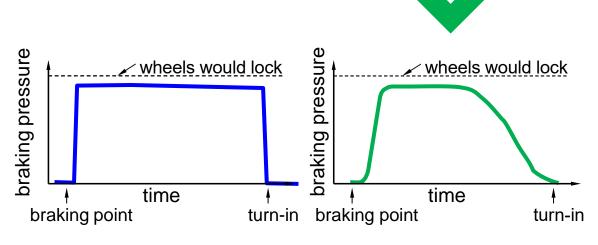




### Hard Braking Zone







smooth on, quick off

full strength, full time

on hard, then ease off

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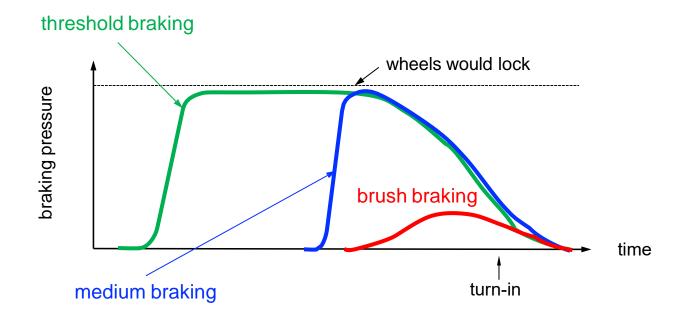




# Need Less Braking?



Keep Release Gradual



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- Consistent braking force?
  - Use a 1 10 scale
- Consistent braking point?
  - Beginning of Braking (BOB)
- Consistent release point?
  - End of Braking (EOB)
- Smooth release?
- Does the car stay balanced?

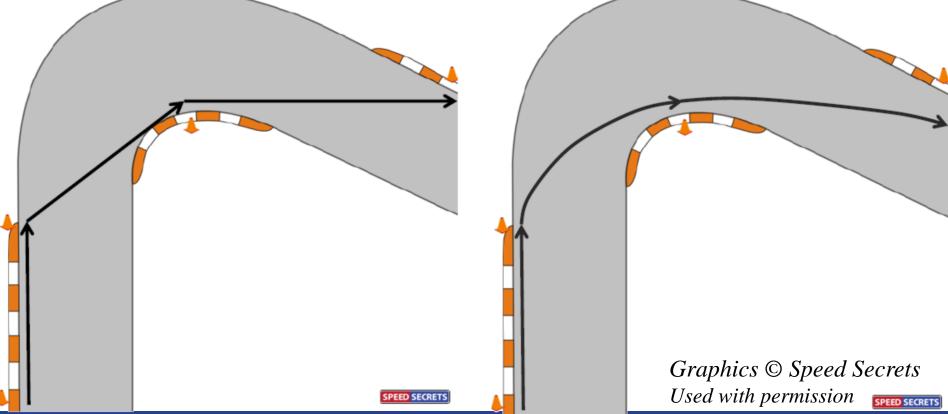


#### How We "See" a Corner



- A curve requires 3 points (basic geometry)
  - Our eyes have to "see" the whole corner

When we see the whole corner, we have (more) confidence





# How to "Look"?



#### Focus

Central vision, 1 second or more

#### Peripheral

Side/surround vision

#### Glance

Central vision, 1/2 second or less

#### Mental

Your "mind's eye"

Source: Central Indiana PCA



# **Example**



Chuck Tucker, Cayman GT4, 09/10/2017 Putnam Park, Lap 7/15 Sector – Sector 1 Total Time: Lap Time: 0:08:19:8 00:08:3

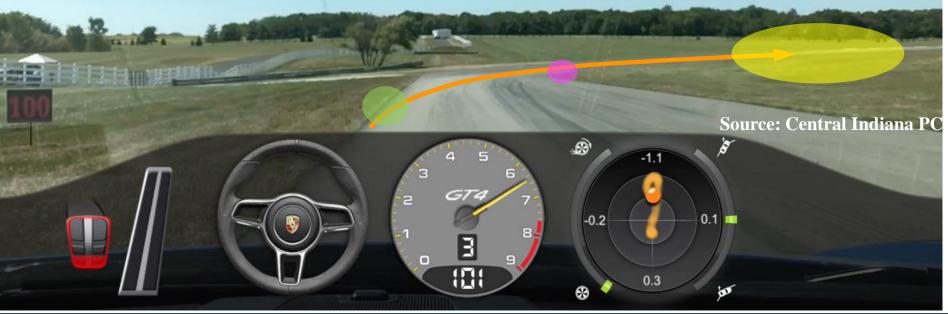


Glance

Mental

Focus

Peripheral









- "Eyes Up"!
- Am I looking far ahead?
- Am I using my peripheral vision?
- Do I have a clear mental picture of each corner?



### Situational Awareness



- Flags!
- Traffic!
- Track conditions
- Car behavior and speed



# Passing!

MINISTER AND SERVICE STATES

- Only in designated straights
- Only with a signal

Both drivers know exactly what to expect





### Situational Awareness



- Am I ever surprised by a car in the mirror?
- Is there a train behind me?
- How soon do I see each flag station?
- Do I check each station? Even in traffic?
- Do I set up passing situations?
- How close to the limit am I? i.e. My limit
  - In each corner
- How soon do I recognize an error?
  - "Go/No-Go"





# Learning Focus



- Prepare
  - 1 or 2 goals for each session...written down!
- Stay mentally focused in the moment
  - Learn to recognize when you are losing focus or judging yourself
  - Use a key word or phrase to refocus (e.g., "Eyes up, look ahead")
- Accept that you will make mistakes
  - "Mistake" is another word for "learning opportunity"
  - Keep your mistakes small and single
  - Catch your mistake, collect the car, and carry on driving
- Convert self-judgments into learning goals
  - Instead of saying "I'm bad at . . . " say "I'm working on . . . "
  - Then figure out how you'll work on that skill

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### Summary: Do the Basics Well



- Seating Position and Mirrors
- Line
- Use of Controls
- Vision
- Consistency
- Situational Awareness
- Learning focus / self awareness













# NIR FULL

#### Track Map for Your Notes



