



### Give Yourself an "Out"

### NNJR Track Side Classroom Series









#### 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 Lime Rock, 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 You Have an Out?



- Two cars behind but you only see one?
- Fast car approaching while you chase your friend?
- Yellow flag pops out when you just pulled out to pass?
- Oil in heavy braking zone
- Entered fast corner "a bit too fast"
- Car starts to spin right in front of you
- Brakes don't work properly in big brake zone







- Escape Hatches
- Situational Awareness
- Plan for the Unexpected
  - The Basics
  - Ways to Develop and Improve





### Reminder: Survival Skills



- Most drivers don't realize they are only a "heartbeat away from disaster"
- I'm amazed at how slowly most drivers react . . .when something happens, it's time to slow down; not now, but right now.

Rick Bye



# **Escape hatches**

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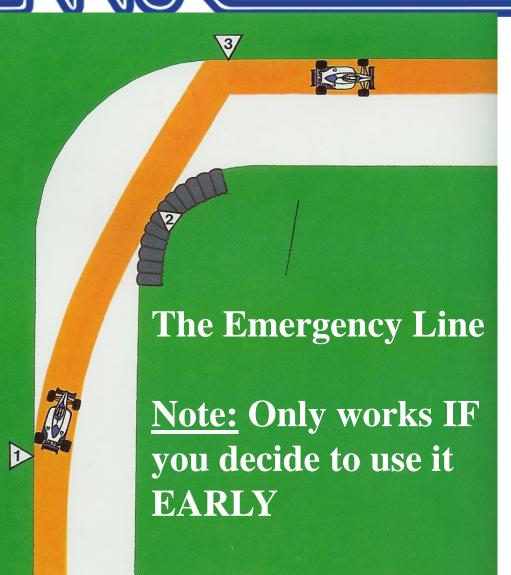
- On track
- Off track





### On Track Escape Hatch





Hard brake in a straight line

Works if another car isn't in the way Or oil, etc.



## Off Track Escape Hatch(es)



- Run off areas
  - Most turns at most tracks, including Lime Rock
  - But some have limited room
    - Uphill
    - Turn 9 (off camber) at Watkins Glen
- Only work with early identification and reaction



# **Escape Hatches**



Do you know where they are?

- Do you know how to use them?
  - Are you prepared?





# The Hard Part



- Decide to bail out...quickly (very quickly!)
- Can we improve this skill?
  - YES!
- Requires
  - Situational Awareness
  - PLUS Reaction Time



### Situational Awareness

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- How far ahead do you look? See?
  - How soon can you see each flag station?
  - "Eyes Up" = Glance as far ahead as possible
  - What's different on track surface? (Alarm bells!)
- How wide is your vision?
  - Pull off, run off spots
  - Where is there "room"
- How sensitive are your senses?
  - Oil, antifreeze
- How well do you know yourself?
  - Consistent or inconsistent?
  - Focused or distracted?
  - Bothered by traffic?
  - Drive "within yourself" vs. "red mist"





### Situational Awareness and Seat Time



- How do drivers spend their \$10 of attention/focus\*
  - Students: \$6 on Reference Points, \$2 on braking, \$1 on gauges
  - Solo drivers: \$2 on Reference Points, \$1 on car feel, \$3 on braking, \$.50 on gauges
  - Pro driver: \$.50 on Reference Points, \$.50 on car feel, \$.50 on braking, \$.25 on gauges
  - How much is left for traffic, flags, run off room, track surface, etc.?
- How much of your \$10 is available??





### How to Improve Reaction Time?



- Plan for the Unexpected!
  - Think about the worst that could happen with
    - Oil?
    - Car Spins in Front?
    - Mechanical?
  - Then do your best to make sure it doesn't happen
  - Do this by addressing the basics.
    - Do what you know you must do to pay more attention on the track.
    - Sadly, this is something that many people even experienced drivers
       could do more of
  - You also need to decide how far you're willing to push
    - Remember: you only have \$10 of attention!

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### Plan for the Unexpected



- The basics
  - Plan where to drive off on every corner (escape hatches)
  - See each flag station as early as possible
  - Look far ahead
  - Be hyper-aware of traffic
  - Pay attention to your ears and nose

Stay focused; have a trigger to re-focus





## Plan for the Unexpected



- Essential Basic: You Must have a Baseline
  - Clear mental picture of "normal" flag stations
    - Flag stations in the distance and up close
  - Clear mental picture of "normal" track surface
  - Very aware of/sensitive to normal car sound and feel
  - Feel for cars ahead and behind
- Any difference from normal = warning!





#### Visualize

- Where and how to drive off on every corner
- Seeing each flag station as early as possible
- Looking far ahead
- Being hyper-aware of traffic
- Paying attention to your ears and nose
- Staying focused; create a trigger to re-focus





#### 2. Traffic

- Exercise to practice on the highway
  - Look at the four cars closest in front, back, and both sides, and say their colors out loud.
  - After a few minutes, when they are no longer nearby, recall the colors and their position.

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### 3. Sensory Input Sessions

- Track surface
  - Vision
  - Smell
- Car Feedback
  - Noise
  - Smell

"There is a major difference between seeing and observing." Sherlock Holmes

"Seeing" is done with our eyes only.

"Observing" is done with multiple senses.

Our ears are more directly wired to our brains, so the brain registers sounds 20-100x faster than what it sees. (Think emergency vehicles.)

Same for smell!

Bottom line: don't discount or underestimate what you hear or smell as you drive.

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#### **Deliberate Practice\***



#### 1. The Track

- Reference Points
- Track Surface
- Safety features
  - Escape hatches
- The Car

#### 2. The Traffic

- Mirrors
- What Would I Do If?

### 3. Sensory Input

- Vision
- Kinesthetics
- Hearing
- Smell

#### \* How you practice is more important than amount

Do it in a focused way,
With clear goals,
Plan for reaching goals, and
A way to monitor your progress

Sources: Ross Bentley, Speed Secrets Weekly 322 and 370; Talent is Overrated by Geoff Colvin, and Peak. Secrets from the New Science of Expertise by Anders Ericsson and Robert Pool





### **Deliberate Practice Worksheets**



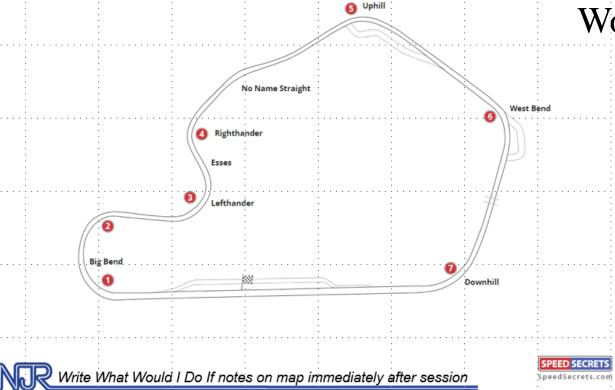
#### Sensory Input Session(s)

#### What Would I Do If

- · I smell anti-freeze?
- · Car in front swerves under braking?
- · Brake pedal soft in middle of traffic entering Big Bend? Downhill?
- Two fast cars, you give one signal, don't see second one?
- Etc.



**Download** the Worksheets here









#### 4. Focus

- Make a routine/habit before going on track
  - While tightening belts or waiting in staging
- Create a "trigger phrase"
  - Hyper-aware, safety first, focus
- Tie back to your visualization
- Consider
  - Weather conditions? Likely to change?
  - Familiar drivers or new drivers in this group?
  - How are you feeling? Are you in the zone?
  - Have you made changes to your car?
  - How might track conditions have changed since last session?

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### **Summary: Give Yourself an Out**



- As the saying goes, it's not what happens to you, but how you respond.
- Developing situational awareness is essential
  - Traffic, Flags, Track Condition
  - Be sensitive to what your car is telling you
- Develop skills to improve reaction time
  - Basics: Drive with a "mental baseline"
  - 1. Visualize
  - 2. Traffic
  - 3. Sensory Input / Deliberate Practice
  - 4. Focus (trigger)



