

HPDE/Autocross 101

A primer for a big day at the track !



Presented by the Chief Driving Instructor Team

Porsche Club of America (PCA) - Rocky Mountain Region

Introductions

Dax Raub – Owner 3R Performance

Dave Stribling – Lead Chief Driving Instructor (CDI)

Brian Leary – CDI, Past RMR Club Race Chair

Scott Henderson – CDI, RMR Medical/Safety Chair

Scott Pedram – 2nd Vice President, RMR Autocross Lead

RMR Board Members – President: Russ Rydberg, 1st VP: Eric Eliff, 2nd VP: Scott Pedram, Membership Chair: Lisa Walsh, Treasurer: Mike Drury, Secretary: Holly Jackson, Newsletter: Bill Simon, Past President: Vicki Cox-Jones



Plan For The Morning

- Introductions
- What are HPDE's and Autocrosses?
- Why should you participate in track events?
- Is this racing?
- Colorado Tracks
- Registration
- Preparation
- Pre-Techs
- Tires
- Things to Bring



- Information on Autocross
- Arriving at the track
- Track Layouts
- Run Group Assignments
- Classroom Instruction
- Walk the Track
- Flag Descriptions
- Instructors
- Run Sessions
- Chief Driving Instructors
- Computer Nannies
- Wear and Tear
- Beer '30

The Problem With Porsches...



When Couples Join PCA



Why should you participate in track events?

- Brian Leary - How I got my start
- A 'Newbie' perspective – Jeff and Stacy Robins
- An incredible journey – Gary Ferrera
- Improve driving skills
- PCA Club Racing and other racing leagues
- Learn more about the mechanics of your Porsche
- Better understanding of the dynamics of your Porsche
- Developing friendships with others having a common interest in Porsches, track driving, meeting others, and having fun!

Ladies Day at CSP - Vicki Earnshaw



August 5th, 2023 at the Colorado State Patrol Track in Golden

Sunday 'Track 101' at CSP - Chair - Brian Hoffmeyer



August 6th, 2023 at the Colorado State Patrol Track in Golden

Is This Racing?

- No, this is not racing!
- An opportunity to learn more about your Porsche on a road course or Autocross track
- HPDEs and AX's encourage participants to drive within their ability and improve their car-control skills with each event
- Cars on-track operate under strict "rules of engagement" which minimize the likelihood of dangerous encounters with other cars
- There are no green flag starts or checkered flag finishes
- There are no winners and losers
- The first step towards moving up into racing



Colorado Tracks

Colorado Road Courses

- High Plains Raceway (RMR)
- Colorado State Patrol Track (RMR)
- Pikes Peak International Raceway (AMR)
- Pueblo Motorsports Park (AMR)
- La Junta Raceway (AMR)

Colorado Autocross Courses

- Colorado Air and Space Port -Watkins AX Course (RMR)
- Pikes Peak International Raceway – Autocross (AMR)

High Plains Raceway



Location: Deer Trail, CO

Length: 2.55 Miles

RMR/PCA Website and High Gear



ROCKY MOUNTAIN REGION PORSCHE CLUB
It's not just the cars, it's the people



[About us](#) [Events](#) [Drivers Education](#) [Newsletters](#) [Member Classifieds](#) [Files and Forms](#) [Google Store](#) [RMR Sponsors](#)



Welcome to the RMR Porsche Club

Whether your tastes are social, technical, or competitive, RMR/PCA has something for you! You can have fun in your Porsche with everything from driver education and time trials at area tracks, autocrosses, rallies, tours, tech sessions, car shows and more. Each year the Rocky Mountain Region of the Porsche Club of America organizes a variety of opportunities to enjoy and learn about your Porsche. If you are a non-RMR PCA member and would like to receive the RMR eblasts in order to keep current on RMR tours, socials, or track events; please email your request along with your PCA membership number to 1stvicepresident@rmrporscheclub.com

UPCOMING EVENTS



2021 High Performance Drivers Ed/Autocross 101

On-line ZOOM Class Coming Saturday, March 27th, 2021! You've just purchased your dream car; a ...

[Read More »](#)



Autocross University April 24th



Spring Autocross April 25

LATEST RMR NEWS



January 2021 HighGear Newsletter

EVENT CALENDAR

DEC 27 Sat	10:00 am DE/AX 101
APR 3 Sat	7:00 am Cars and Coffee Lafayette (on ho...
APR 10 Sat	8:00 am Breakfast Club Breakfast -- Cance...
APR 13 Tue	6:00 pm RMR Board meeting
APR 24 Sat	8:00 am Autocross U

[View Calendar »](#)

RECENT MEMBER CLASSIFIEDS

1997 Boxster	\$19,500.00
2017 911 Carrera	\$80,000.00
2008 Cayenne GTS	\$14,000.00

FIND US ON FACEBOOK



FOLLOW US ON INSTAGRAM



@RMRPCA

Registration

- Registration Steps:
 - Go to <http://rmr.pca.org/>
 - Check out 'Upcoming Events'
 - Click on the registration link that takes you to the Motorsportreg.com registration page for that event
 - If you've never registered on Motorsportreg.com, create an account first, then login and go to the event page
 - Follow the instructions and click 'Continue' through the registration process
 - The event page will have all the information you'll need to get registered, find a hotel, find the location for pre-tech, etc.



What are HPDE's and Autocrosses?

- The High Performance Driver Education (HPDE):
 - Driving schools held on dedicated race tracks
 - Designed to teach drivers proper high performance driving techniques
 - Safety is our number one priority!
- Autocross:
 - Timed competition through the cones
 - Drivers navigate through a defined course
 - Drivers usually get six to eight runs during the event
 - Each run is timed to gauge your improvement
- Autocross differs from HPDE track driving in that:
 - Generally there are only two or three cars on the course at a time
 - Spaced for safety
 - Autocrosses are often a stepping stone to track driving
 - Drivers learn car dynamics at a slower and less stressful pace

Chart to compare similarities and differences between DE and AX

	Driver Education	Autocross
Advanced registration	Required	Required
Age requirements	18 years old with driver's license	16 years old with driver's license
Tech inspection required	Yes	No (just top tech at the course)
Vehicle	Porsche has priority	All (no pickups)
SUV	Porsche SUV (German SUV's by approval)	Porsche SUV (German SUV's by approval)
Cabriolet	Yes (with rollover protection)	Yes (with rollover protection)
Required clothing	Cotton long pants or shorts and cotton long/short sleeve shirt. Closed toed shoes	Closed toed shoes
Helmet required	Snell 2015/2020 cert (M or SA)	Snell 2015/2020 cert (M or SA)
Cars on track at one time	Up to 25	Typically 2 - 3
Driver instructor	Required for newer students	Available
Sharing Car	Yes, in different run groups	Yes
Insurance required	Optional (extra fee)	Optional (extra fee)
Location	High Plains Raceway	CASP (Front Range Airport)

Track/Autocross Tires

Chris Macarak – On-Site Tires

- What to expect from your current tires at you first DE
- Tire pressures for the new DE participant
- The perfect tire for DE's and Autocrosses?
- What's the best tire/wheel size for these events?
- What can help you make tires last longer?
- Air pressure changes while on track
- Nitrogen fill – is it a benefit?
- A slippery slope



Autocross

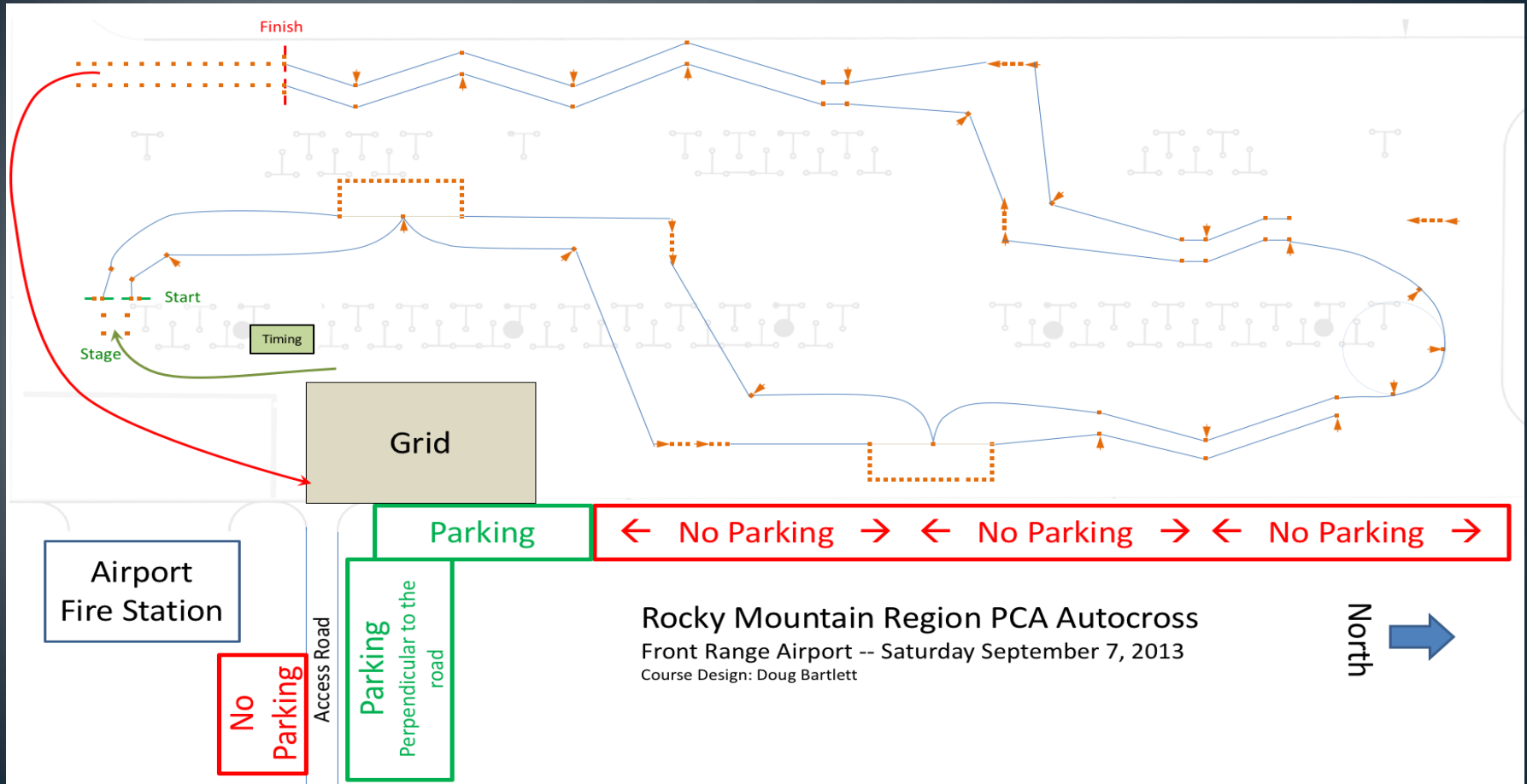
Information on Autocross

Scott Pedram - RMR Autocross Lead

- What is Autocross?
- Who can Autocross?
- What should you Drive?
- The benefits – what you can learn!
- Will it harm my Porsche?
- My first Autocross...

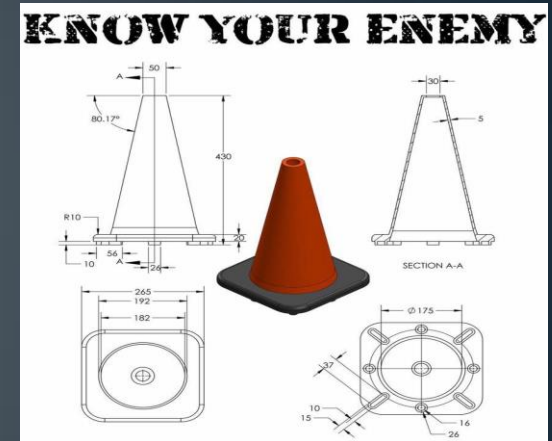


A Day at an RMR PCA Autocross



Autocross Tips for Success

- Arrive early and study the course layout
- Start slow to learn the course, then build speed
- Use the instructors! Have them ride with you, and ask to ride with them
- Look far, far, far ahead — at least 2 features ahead
- Use smooth inputs on the controls
- Breathe! :-)
- Have fun! Talk with your friends and neighbors on grid. Learn from each other, or commiserate with each other
- Enjoy the journey. Come back again and again!



Anatomy of an Autocross Run

A Basic Autocross Video:

[Video](#)

Video with Course Map & Data:

[Video](#)

Not All Runs are Pretty! – What happens if you overcook it:

[Video](#)



12 Minute Break

Get some Coffee / OJ / Doughnut or Bagel

Information on High Performance Drivers Education



HPDE Preparation

- Remove ALL loose items in the car
- Check tire pressures – know correct pressures!
- Torque wheel lug nuts – know correct torque value!
- Check under the hood – fluid levels, leaks, tighten caps
- Locate the tachometer and temp gauges – monitor while on the track
- Brake pads – how to determine if they're worn
- Brake fluid – replace annually with high temp fluid
- Oil Change - annually
- Tools – air gauge
- Read the owner's manual
- Watch RMR/PCA YouTube videos of HPR and Watkins AX
- Watch '[HPR Training Video 2018](#)' on YouTube
- Watch '[A Lap Around HPR](#)' video on YouTube

HPDE Pre-Techs

- Make sure your fluids are fresh, and brake pads and tires are in good shape before you go to pre-tech (held 10 days in advance)
- Annual brake fluid flushes are required! Motul 600 or 660 or SRF is recommended
- Pre-techs are 10 days in advance of the event to give you time to fix things
- Pre-techs are held at a number of places along the front range
- You can also have your local authorized mechanic complete the pre-tech form
- Tech Inspection forms can be found on the rmr.pca.org website under Files and Forms. Print it out, fill it out, and bring it with you to the pre-tech.
- All cabriolet cars must have some kind of rollover protection. They also need to pass the 'broom test'. Any issues will be identified at pre-tech.
- Snacks, drinks, and occasionally beer is served at pre-techs
- Make sure to bring the completed pre-tech form to registration on the morning of the HPDE (can't get on track without it!)





2023 PCA Driver Education Tech Inspection Form

This form must be completed for EVERY Vehicle registered.

Section A must be completed within 30 days of the event.

Section B must be completed within 24 hours of the event.

PLEASE PRINT DOUBLE SIDED



General Information – to be completed by Owner/ Participant prior to inspection

Driver Name: _____	Car#: _____
Marque: _____	Color: _____
Model: _____	Modified? _____
Year: _____	PCA Home _____
Event Date/Track: _____	Region: _____
	PCA Home Region _____
	Run Group: _____

SECTION A Authorized Shop / Inspector – Complete Section A Only

This vehicle inspected by: (check only one)		Shop / Inspector Stamp (or business card)
<input type="checkbox"/> PCA Region authorized tech inspector		Shop Name (if applicable): _____
<input type="checkbox"/> PCA tech inspector approved by other region safety chair		Shop / Inspector Contact Email or Phone: _____
<input type="checkbox"/> Porsche or other dealership		Address: _____
<input type="checkbox"/> Specialty repair shop or independent Porsche mechanic		
Inspector Signature: _____		
Inspector Name (print): _____		
Inspection Location: _____		
Inspection Date: _____		
[PASS]: _____ FAIL (See Notes): _____		
Pre-Event Inspection	These must be performed by a PCA-authorized inspector within 30 days prior to the event. Please familiarize yourself with the PCA DE Minimum Standards found here: https://www.pca.org/drivers-education/Drivers-Education-Minimum-Standard	

P F **Helmet:** Snell rated current or last date certificate, no cracks; Chin strap in good condition. (Helmets may be stickered for approval for the entire season, can be approved at the track, and while required for track entry, helmet is NOT required for vehicle to pass Tech inspection).

P F **Roll Bars/Cages:** Mandatory for all open & semi-open cars without manufacturer's structural or deploying roll over protection, roll bars must pass the broomstick rule and must be covered with closed cell foam padding in any place where a helmet could come in contact with the bar.

P F **Safety Restraints:** Factory or better installation in both seats, must be securely mounted, belts not frayed, equal restraints for passenger and driver; 4 point harnesses prohibited except Schroth Quick Fit on Schroth-approved car models only; 5-, 6- and 7-point harnesses must use seat with factory routing holes. Expiration dates adhere to SFI and FIA notification in DE Minimum Standards.

P F **Head and Neck Restraint (HANS):** Required with harnesses.

P F **Structural Integrity:** No loose body or interior parts; no structural rust at or near suspension points.

P F **Doors:** Must be operational from inside and outside.

P F **Windshield:** No cracks in front windshield in driver's direct line of sight. Does not impair vision.

P F **Mirrors:** Minimum of single mirror in good condition and securely mounted.

P F **Brake Lights:** Functioning and visible brake lights.

P F **Gas Caps:** In place and secure, gasket intact.

P F **Fluids:** NO DRIPPING LEAKS of any fluid of any type.

P F **Fluid Lines:** Proper fittings and line condition.

P F **Battery:** Check for general condition of cables, corrosion, or signs of leakage. Battery should remain securely fastened when wigged vigorously.

P F **Throttle Return:** Freely operating and proper spring(s).

P F **Belts:** Fan and other auxiliary belts in good condition with proper tension.

P F **Brakes:** Brake pedal must be firm.

P F **Engine Compartment / Fluids (general):** ANY LEAKAGE OF FUEL OR BRAKE FLUID IS UNACCEPTABLE. No excessive engine oil, coolant, or power steering fluid leaks. Hoses/ wires must be in good cond. w/ no cracks/ abrasions, and secured away from all moving parts.

P F Date of last brake fluid flush: _____ Fluid type: **Brake Fluid:** Sufficient brake fluid; premium fluid recommended. Brake fluid must be changed at least annually.

FOR PORSCHE GT PASSENGER SEATS ONLY

P F Installation of anti-submarine belt per Section 100) of Minimum Standards. Additional inspection must be performed to ensure there is no fraying or weakening of harness belts, especially in area of seat punch-out.

P F **Wheels – Overall Condition:** No cracks, bends or flaws. Valve systems must have airtight caps.

P F **Wheel Bolts & Lugs:** All nuts engaged, pay special attention to after-market wheels.

P F **Wheel Center Locks:** Make sure locking devices are fully engaged.

P F **Tires:** General good condition. No cracks, cuts, cords or blisters, the tires used at the track should be teched on this form. No more than seven (7) years old from date of manufacture, per DOT date code.

P F **Brake Systems:** Sufficient brake pads (3/16" minimum), rotors and pads are in good condition, no cuts or abrasions in brake lines. There should be no visible cracks extending to the edge of the rotor. With co-driver, pads should exceed minimum standard.

Things to Bring

- Directions to the track
- Hat, for protection from the sun
- Mask, during COVID restrictions
- Sunglasses
- Sun screen
- Helmet, don't forget it!
- Pre-Tech form
- White or light colored cotton shirt for driving (short sleeve permitted, but long sleeve is better)
- Short or Long cotton pants and closed toe shoes for HPDE and AX
- Cooler with ice, plenty of drinks and lunch or snacks.
- There may be someplace at the track to get lunch, like at High Plains and Pueblo



Things to Bring (Cont.)

- A small folding chair
- Paper towels and window cleaner
- Tire air pressure gauge
- Wrench to tighten wheel lug nuts, preferably a torque wrench
- Your car tool kit, jack, tow hook, etc.
- Track Insurance?
- Wide Blue “removable” masking tape for car numbers.
- Gasoline is available at Byers or at the track.
- A couple of quarts of oil
- Air pump or an air tank (free air is available at most tracks)
- Chargers for phone, camera, Ipad
- Something to hold all this stuff

Arriving at the track for HPDE

1) Entry

- [Orientation Video](#)
- Arrive by at least 7:30 am
- Sign the waiver at the gate
- Find a place to park - park on the asphalt, not the crushed rock



2) Registration

- Get your pre-tech form, helmet and head over to registration
- Check-in at registration - helmet will be checked and tech form will be kept

Our 3 HPDE goals: "Safety,
Learn something new,
Have FUN!"

3) Car Preparation

- Go back to your car
- Remove everything from the car (floor mats, beer cans, etc.)
- Put your run group sticker on the front windshield (top corner - drivers side)
- Clean your doors and put your designated number on with blue tape
- Check your air pressures

Arriving at the track for HPDE (Cont.)

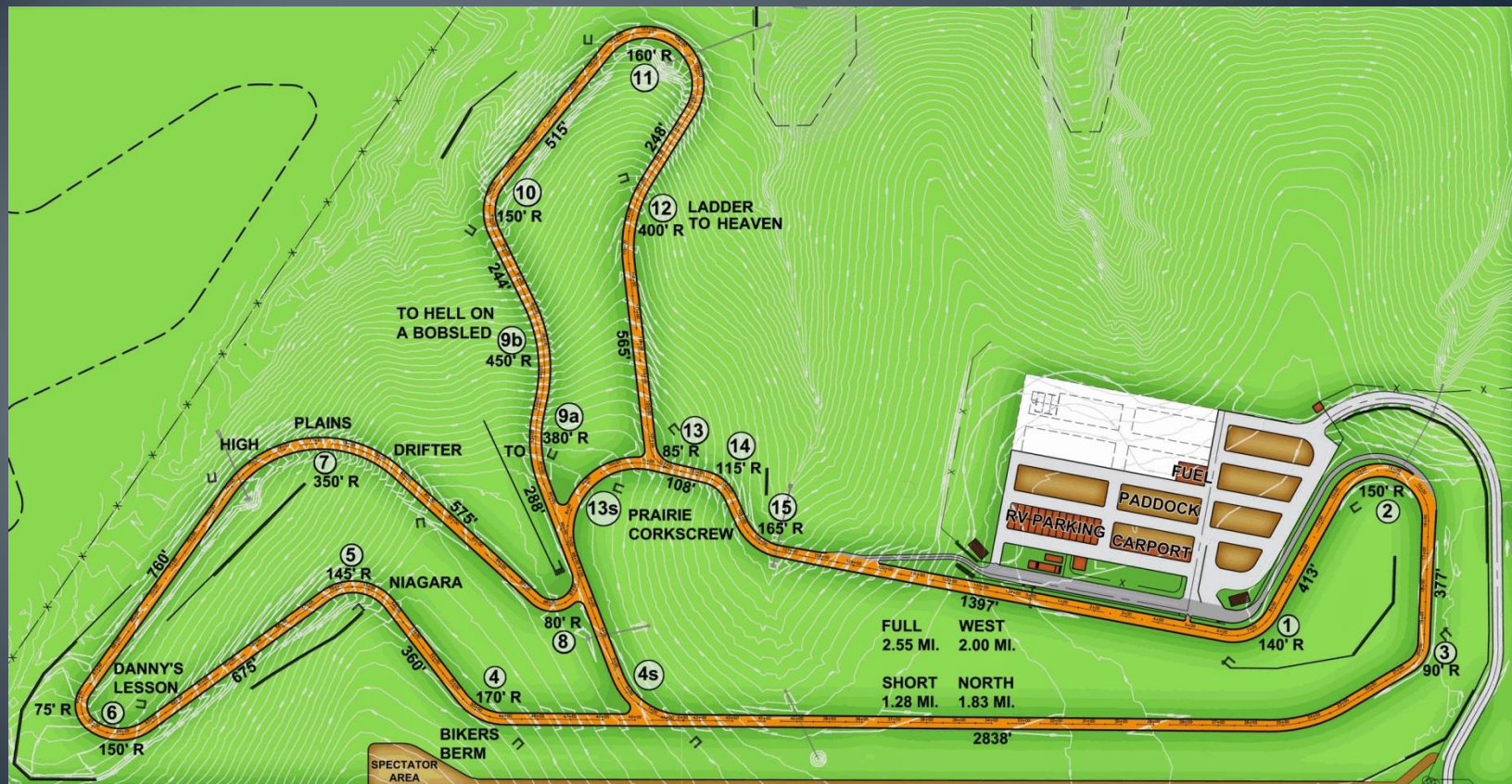
4) Driver Meeting

- Get some coffee and a breakfast burrito
- Go to the 8:00 drivers meeting at the pavilion (THIS IS MANDATORY!)
- After the meeting, for newer drivers, go to the Classroom for the morning briefing
- Go back to your car and get ready for your run group to be called

5) Grid

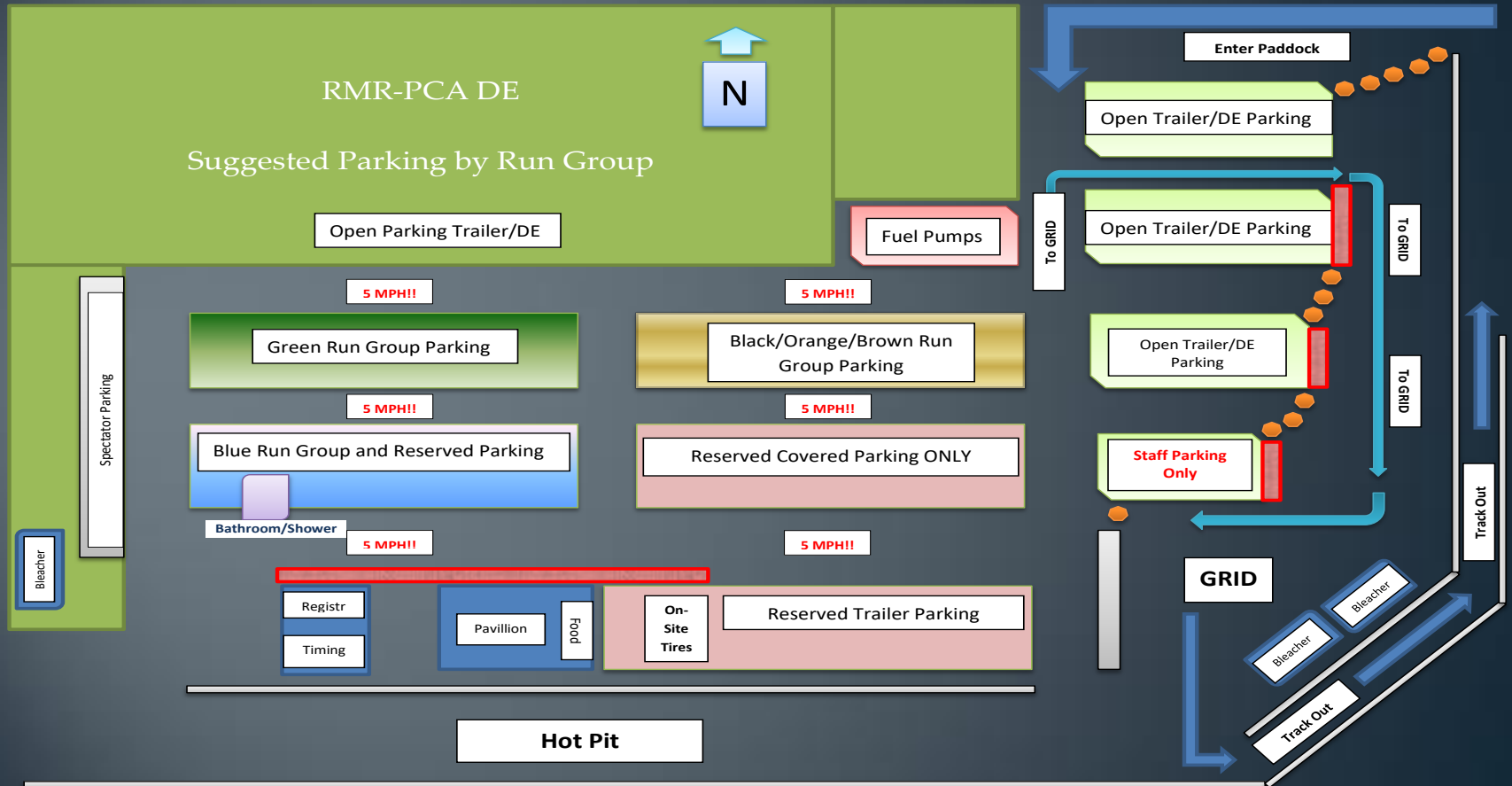
- Head to the grid at the call to grid - 15 minutes before your session
- Get your car top-teched at grid - open the hood, trunk and both doors
- Meet your instructor...Be willing to learn!
- Discuss goals for that session

High Plains Raceway



**This Symbol Means
No Parking Area!!!**

High Plains Raceway

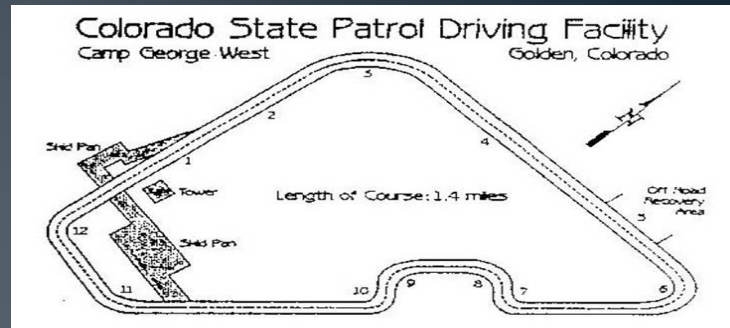


Colorado Track Layouts



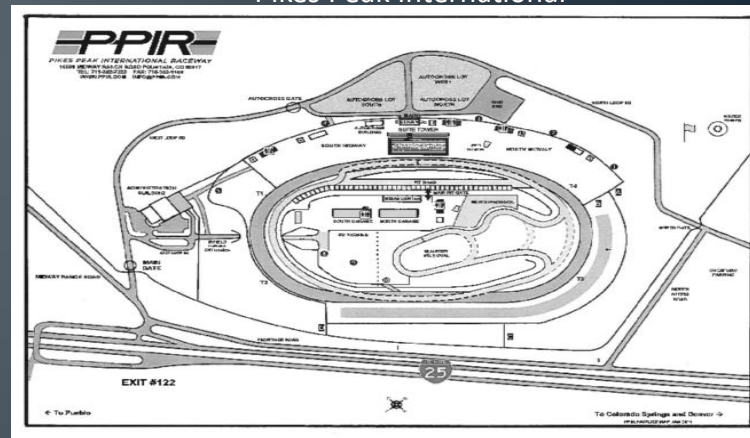
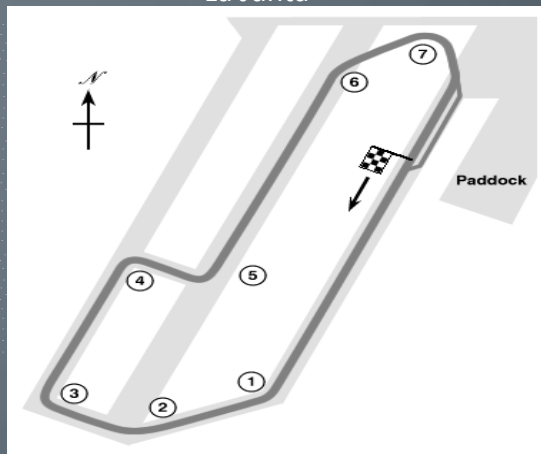
High Plains Raceway

La Junta



Colorado State Patrol

Pikes Peak International



Run Group Assignment

- Explanation of run groups (Yellow, Green, Blue, Brown, Orange, Black)
- Reason that drivers are separated into different run groups
- Run group assignments
- Moving from one run group to another
- Restricted passing vs. Expanded passing
- Yellow & Green
- Blue Instructed/Blue Solo
- Brown run group – Solo
- Promotion to Solo
- Orange and Black run groups (instructor/expert)



Classroom Instruction

- Classroom - three sessions - one before first run session and one following your first run session and one mid-day
- What's covered? Safety is first! How to keep ourselves and our cars safe.
- Specific rules to which we all adhere ensure a safe event for everyone
- Fundamentals of car dynamics - how driving smooth leads to driving fast
- Proper use of brakes, steering and throttle through the turns is the key
- Rules of controlled passing - how drivers communicate with each other
- Flags and cornerworkers - what they mean and how cornerworkers communicate with drivers
- Layout of the track - how to learn it and how to drive it quickly
- Going slow in the morning and will be going faster in the afternoon!
- Feedback from the students is welcomed and encouraged
- Discover how these skills will make you a better overall driver



Walk The Track Sessions

- Walking the track is normally held after the track has gone cold at the end of the day. If we can find a golf cart, Beer '30 rules apply!
- This is an opportunity to view the track close up at walking speed so you get a better idea of small nuances that can make a BIG difference in how you approach a corner and attack the corner
- These sessions are moderated by one of the Chief Driving Instructors who are very familiar with the track
- Walking the track can take an hour to complete, so wear comfortable shoes and schedule your breaks accordingly



Flags



- Green Flag



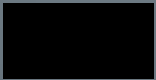
- Yellow Flag



- Passing Flag (Brian's fav)



- Debris Flag



- Black Flag




- Red Flag



- Checkered Flag



Run Sessions

- Number of run sessions
- Length of run sessions
- Instructor at the wheel
- Standing yellow during first session (identify cornerworkers)
- Hand signals for passing, exiting track
- Trains are never a good thing 
- Getting space in the hot pit
- Over-inflation of tires affecting control
- Hot weather
- Checkered flag
- Cool down lap - thank those cornerworkers!
- Post-session review
- Goals for next session



Instructors

- Instructors are your guide to a safe and successful day at the track
- RMR/PCA Instructors go through a rigorous training program
- All instructors are very experienced HPDE drivers, including many that are racers with PCA, RMVR, SCCA, WRL, NASA racing programs
- Instruction is how to drive safely around a race track
- They do not teach students how to race
- Instructors also do jump-ins with other instructors to provide feedback
- Instructors will provide feedback through Driving Evals
- Students will also provide feedback about their instructor
- Your instructor may become a life-time friend



Chief Driving Instructors

- Provide in-class training for new drivers
- Overseeing drivers on track
- Oversees Black Flag station
- Discuss with drivers reasons that they went off track or spun
- Address issues with other drivers on track behavior
- Evaluate requests for movement between run groups
- Approve solo status at track
- Select and train new instructors



In-Car Computer Aids

- Why are they there?
- What is PSM?
 - Porsche Stability Management
- What is ESC?
 - Electronic Stability Control
- What do they do?
- When should you shut it off?
- When should you leave it on?



Wear and Tear

Types of wear and tear on our Porsches:

- Tires
- Brake pads
- Rotors
- Rock chips
- Black tire marks
- More frequent oil changes
- Brake flushes
- Brake bleeding
- Break-in period for new cars
- 'Smoke on Start-up'



Beer '30

- It's not just the cars...It's the people!
- After the track's cold the party begins! Beer, water and sodas.
- Walk the Track
- Occasional dinners
- Showers and real bathrooms at track!



Evenings at the Track

- Consider an evening at the track!
- A great opportunity to spend time with like minds
- Various parties throughout the paddock
- Join one or start your own!
- Bring your RV (power available) or camp (or glamp!) at the track
- There are independent RV rental companies who can accommodate you for your stay
- Longhorn Motel is 20 minutes away. A new Comfort Inn is located in Bennett.





RMR/AMR HPDE's and AX in 2023



- April 22 – 23 – Autocross University/Autocross – CASP
- April 29 – 30 – “Spring Training” HPDE – High Plains Raceway
- May 20 – Autocross – CASP
- June 10 – 11 – HPDE – High Plains Raceway
- June 24 – Autocross - CASP
- July 22 – 23 – Club Race and Solo HPDE – High Plains Raceway
- August 5 – HPDE - Ladies Day – Colorado State Patrol Track
- August 6 – Track 101 – Colorado State Patrol Track
- August 19 – Autocross – CASP
- September 16 – 17 – HPDE – High Plains Raceway
- September 30 – Autocross – CASP
- October 7 – 8 – HPDE – High Plains Raceway



Getting Involved

- Lots of volunteer opportunities (grid help, equipment, etc.)
- Be an event chair!
- Participate in noon time charity parade laps
- Contribute to your newsletter - articles and photos
- Advertise in High Gear
- Be a Corner Worker or Grid Worker at the RMR Club Race!
- Sponsor an event
- Join our Facebook group
- Support our sponsors!



Closing Thoughts

- The Slippery Slope's descent is as shallow or steep as you want it to be. But don't be in a hurry. Enjoy the ride!
- The only nut you need to fix on your car is the one behind the wheel
- Preparation pays off
- Share your excitement and enthusiasm with others
- Set goals for yourself before each DE/AX
- Try to meet at least one new person at each event
- If you find that HPDE's or AX's are not for you, there are many other club activities
- If you get a lot from this club, make sure to give as well
- Any other questions can be directed to Brian Leary (beleary36@yahoo.com)



"I'm In! What's Next?"

- ✓ April 22 – 23 – Autocross University/Autocross – CASP
- ✓ April 29 – 30 – "Spring Training" HPDE – High Plains Raceway
- ✓ August 5 – HPDE - Ladies Day – Colorado State Patrol Track
- ✓ August 6 – Track 101 – Colorado State Patrol Track



Questions?

