

## **HPDE 1 / 2 Drivers Information**

### **May 6th 2023**



Welcome new and returning NASA Utah drivers! We are so pleased to share this driving experience with you. Exploring the limits in a safe environment is our goal and a great way for you to learn more about the physics of racing. Be sure to take advantage of the NASA instructors and group leaders for their wealth of knowledge and experience. They can help you reach your driving goals. We hope you enjoy the Outer Loop with NASA Utah and look forward to helping you progress! **Also check out our dedicated HPDE 1/2 parking area shown on the paddock map hosted on [www.nasautah.com](http://www.nasautah.com)**

**Please take a few minutes to read this packet, and check the website for schedule and paddock map posted by wednesday. Also sign up for the newsletter for the quickest information.**

**Daily Schedule:** [www.nasautah.com](http://www.nasautah.com) - You are responsible for making sure you are where you need to be when you need to be there.

- Check in at the NASA Office first thing in the morning. TG#109
- Be to Grid 10 minutes before your schedule says your run group is scheduled. A sign board adjacent to grid will communicate which group is on track, and which should be in grid!
- Grid is first come first serve.
- We are not responsible if you miss your session. Keep an eye on the grid boards, and the schedule!
- **Bring tech form to drivers meeting!**
- Meetings are MANDATORY, please check schedule!
- **All HPDE 1 should park in the designated area near cafe against fence. Great way to meet some some new people! We encourage HPDE 2 to also park in this area.**
- Paddock Map will be posted to [www.nasautah.com](http://www.nasautah.com)

#### **Fundamentals are the same as always**

- Be Safe – car comes home in the same condition it came to the track in – minus some tire and brake pad life
- Have Fun – we come out to have fun and challenge ourselves and our cars.
- Go Fast(er) – we want to improve our car control skills

Other resources:

**Link to CCR - [Club Codes and regulations](#)**

**NASA Utah website (for schedule, tech forms, etc.) - [www.nasautah.com](http://www.nasautah.com)**

**Link to update your NASA member info (for ensuring your cell phone number is correct so we can send you SMS alerts) - [DriveNasa sign in page](#)**

### **Communications - All Groups**

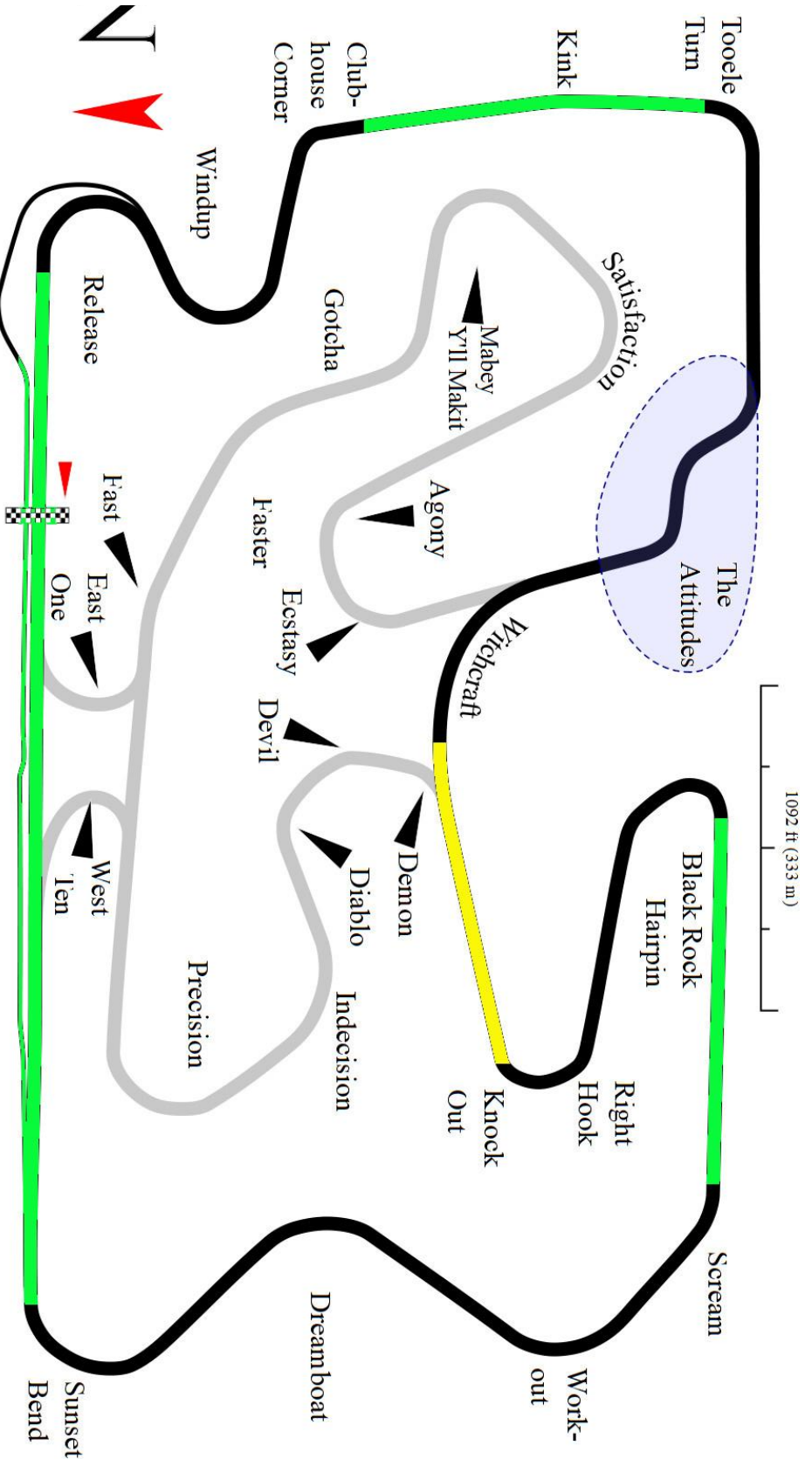
In order for effective communication between drivers and NASA Utah staff, the following items are required in order to participate

1. Complete review of this entire document. Due to the complexities of operating a track event, standard operating procedures/rules will be outlined below. Meetings will focus on working out kinks in operations, coaching group performance, etc.
2. **HPDE 1/2 will be meeting in Mountain Suites, on the second floor of the GP building.**
3. Your HPDE leaders can be reached during non-meeting times via text or call. Please note that both group leaders also participate or support one or more racing groups and may not be available during those sessions.
  - a. Greg Troester - 801.633.1928 - Also found in west day garage 9.
  - b. Matt Guiver -

### **General Rules - All Groups**

- Passing (see map below)
  - **Read the HPDE Course conduct section in the CCR – Page 20 section 6.0 - [link](#)**
  - Point by is required. This means the lead car uses a clear arm out the left side window to indicate it is safe to pass. Lead car stays on line, while overtaking car executes the pass by moving off line and around. Use only the marked straights outlined below in the passing map. Attend debrief meetings after each session, there may add additional passing zones added.
  - If a train forms (multiple cars waiting patiently to make passes safely) it can be difficult to break them up. Please feel free to use the pit to break up the train. This means simply exit the course in Turn 14, and drive at speed limit thru pit lane, right back up to track entry. Look to the course worker at the track entry for a signal to wait or enter track. They will try to put you in a space of clear track, this can take 20-30 seconds.
  - Dive-bombs will not be tolerated
  - It's a huge track, and car counts in HPDE 1/2 are intentionally low. Find space and enjoy!
  - **No cars side-by-side in corners**
  - **Single car passing, no 3 wide passes!**
  - If you are having a mechanical issue and are exiting the track, maintain one side of the track, provide the 'exiting course' hand signal (fist in the air, out of window), maintain slower pace and be predictable.

- If you cannot complete the pass during the acceleration zone, please back out and plan for the next passing zone. Be courteous, low car count means lots of track space for drivers.
- Last Lap of Session
  - Passing is still allowed in passing zones, but keep in mind that you should begin a cool-down lap at the half-way point through your final lap and some drivers are not expecting a pass on cool down laps, use caution!
  - Checkered flag will be thrown at:
    - Start/Finish tower
    - Blackrock Hairpin (T5)
    - Tooele Turn (T11)
- Exiting Course
  - Left hand out window at a right angle – either closed fist or fingers pointing to the sky
  - Roll down hot pit **LEFT** lane and follow the direction of the corner worker to exit
    - **25mph speed limit in Hot Pit**
  - For further info, read the CCR page 24 section 8.1
- Flags - see addendum at end of this document for standard flag explanations. (will attached pages 22-23 of NASA CCRs - [link](#))
  - Black flag station will be manned, but communication will be limited as described above. Get stopped, take a breath, and wait for instructions. We will communicate and get you back on track/
- Grid
  - **Coned off area near entry to facility, entering track gate 1**
  - Please get to grid 10 minutes early
  - Helmets on, seatbelts buckled, front windows down
  - Please remain in your vehicle and keep staff/support to a minimum.
  - Enter thru yellow flag cones at north end of grid
- Instruction / Instructors / Passengers
  - **Only instructors are allowed to take passengers.**
  - You will meet your instructors on the grid before your session begins. So get to grid a few minutes early to meet and debrief with your instructor on your goals for the session!



# Flags (source: NASA National CCR)

## HIGH PERFORMANCE DRIVING AND TIME TRIALS

### 7.0 HPDE, SCHOOL, AND OPEN TRACK FLAGS

Flags are the MOST IMPORTANT form of communication the Officials have with the drivers while they are on the track. Therefore, it is imperative that drivers know what each flag means.

Note: Flags listed in this section are simplified from the Competition Flags, for the purposes of HPDE Program. Competition License Candidates are held responsible for the information contained in the "FLAGS, SIGNALS, AND COMMUNICATION" section #19.0 of the CCR.

#### 7.1 Green Flag



Session is open.

#### 7.2 Yellow Flag - Motionless



Slow down. Danger ahead. **ABSOLUTELY NO PASSING** is permitted, until completely past the incident, or until past next manned flag station that is not displaying any Yellow Flag(s), whichever comes first. There may be one (1) yellow flag covering more than one incident. There may be several yellow flags before reaching the emergency area. The requirements are still the same, "SLOW DOWN, NO PASSING." [Ref:(25.4.1)]

#### 7.3 Yellow Flag - Waving



Great danger, slow down. Be prepared to stop. **ABSOLUTELY NO PASSING** is permitted, until completely past the incident, or until past the next manned flag station that is not displaying any Yellow Flag(s), whichever comes first. Note: There may be one (1) yellow flag covering more than one incident. [Ref:(25.4.1)]

#### 7.4 Double Yellow Flags



Full course yellow condition exists. Be prepared to encounter a Pace Car and/or emergency vehicles. Drivers should not significantly slow down. Be prepared to encounter a slow moving pack and other local flag conditions. Always obey the local flag conditions (e.g. waving yellow). **ABSOLUTELY NO PASSING** is permitted, until the Pace Car (if on track) has pulled off AND the driver has passed the next manned flag station that is not displaying any Yellow Flag(s). [Ref:(25.4.1)]

#### 7.5 Black Flag - Open



Track Officials want to talk to you. Complete current lap and pull into the pits for consultation.

#### 7.6 Black Flag - Furled



Warning. You are driving in an unsafe manner or you did something wrong. If you continue to do so, an open black flag will be shown to you.

#### 7.7 Black Flag All - Waving



All manned flag stations will display waving black flags during this condition. Some flag stations might display a sign with the word "ALL." All cars proceed slowly to the hot pits. No passing.

(continues below)

## HIGH PERFORMANCE DRIVING AND TIME TRIALS

### 7.8 **Checkered Flag**

Session is over. Complete current lap cautiously and exit via pit lane or otherwise designated end-of-session track exit point. Passing rules remain the same during the checkered flag lap as during the session.

### 7.9 **Red Flag**

Emergency. Come to an immediate and controlled stop on the side of the track in a safe location.

### 7.10 **Blue Flag** (with diagonal yellow stripe)

Another vehicle is following very closely and may attempt a pass. The driver receiving the Blue Flag should consider giving a passing signal.

### 7.11 **Debris Flag** (yellow and red stripes)

Caution. To be displayed motionless. Oil or debris may be present on the track surface or a slippery condition may be present. This flag will be taken down after several laps, but that does not mean that the condition has resolved, just that the driver should now be taking it into account

### 7.12 **White Flag**

Emergency vehicle or slow moving vehicle is on course.

### 7.13 **Emergency Vehicle Flag** (white flag with a red cross)

There is an emergency vehicle on course. Pass with extreme caution.

### 7.14 **Mechanical Black Flag** (with orange ball in center)

(*a.k.a. meatball flag*) There appears to be something mechanically wrong with your car. Proceed to the pits at reduced speed.

### 7.15 **Pace Car (with lights on)**

Follow the Pace Car at about the same speed. Do not pass the Pace Car unless instructed to do so by the Pace Car personnel. Passing is only allowed after the Pace Car has pulled off AND the driver has passed the next manned flag station that is not displaying a yellow flag.