



# Time Trial (TT)

## Official 2021 National Rules

(Rules subject to change)

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1	Introduction.....	3
2	Intent.....	3
3	Sanctioning Body.....	3
4	Purpose.....	4
5	Driver Requirements/Licensing.....	4
6	The Classes.....	5
	6.1 TTU, TT1, TT2, TT3, and TT4 Classing.....	5
	6.2 TT5 & TT6 Classing.....	7
	6.3 TTEV (Electric Vehicle) Classing.....	8
7	Timing and Scoring.....	8
	7.1 TT Classification Forms.....	8
	7.2 Timing Format.....	9
	7.3 Regional Championships.....	10
	7.4 Declaring a Class.....	11
	7.5 Vehicle Substitutions .....	
11	7.6 Competing in Multiple Classes.....	12
	7.7 Teams.....	13
8	On-Track Procedures and Conduct.....	13
	8.1 Regional Required Procedures.....	13
	8.2 On-Course Conduct.....	15

9	Car Appearance.....	15
	9.1 Numbers and Class Designation.....	15
	9.2 General Car Appearance.....	16
	9.3 NASA Decals.....	16
10	Safety.....	16
	10.1 Car Preparation, Technical Inspection, and Logbooks.....	16
	10.2 Download Sessions.....	17
11	Penalties.....	18
12	Protests.....	19
13	Vehicle Inspection/Impound.....	20
14	Website Posting.....	21
15	NASA TT National Championship Event.....	21
	15.1 General Info & Driver Eligibility.....	21
	15.2 Meetings.....	22
	15.3 Car Classification Forms & Vehicle Substitutions.....	23
	15.4 On-Track Procedures.....	24

(Note: Latest revisions are in blue font)

## 1. **Introduction**

NASA Time Trial (NASA TT) is an automobile road course (circuit) competition series focused on time trial style competition, and shall function as an advertising and marketing tool for the series sponsors, the independent sponsors of each team, as well as the official sanctioning body of the series. The trade name, “NASA Time Trial (NASA TT)” and these rules are the property of the National Auto Sport Association, Incorporated ®; located at 7065 W Ann Rd. #130 – 432, Las Vegas, NV 89130; 510-232-NASA (6272).

## 2. **Intent**

The intent of these rules is to provide mandates to ensure that all vehicles are modified within clearly established limits, to strive for an even platform, in which a contest of driving skill may provide the most talented drivers with great rewards. These rules provide the NASA TT Administration a guideline to use when making decisions regarding NASA TT. The intent of the rules and safety considerations will be the overriding factors in making such decisions, as opposed to a constrained interpretation of the rules based on phraseology or verbiage. The rules shall be applied in a logical manner that seeks to provide competitors a safe and fair venue for competition.

A permitted item cannot be modified to perform either a prohibited function, or the function of an item that would otherwise be assessed a Modification Factor under the modification rules. Vehicle legality is the sole responsibility of the driver. NASA TT Officials will attempt to use less invasive techniques for monitoring TT rules compliance than is expected in NASA race classes. As such, penalties for non-compliance with the rules will be harsh, and may include disqualification and expulsion from further NASA TT competition with a single infraction, regardless of the nature of the infraction. Competitors are encouraged to seek clarification of any rule and/or inspection of any modified part they are unsure about, before competition, from their Regional TT Director or the National TT Director.

## 3. **Sanctioning Body**

The NASA TT series is supported and sanctioned by the National Auto Sport Association (NASA). All TT events are governed by these rules, applicable addendums, and rules set forth by the National TT Director. All competitors must also abide by the rules set forth in the current *Club Codes and Regulations* © (CCR), and any supplemental rules by Regional Directors. All decisions made by the NASA TT Administration are final, except under certain conditions, as specified in Section 12 Protests.

#### 4. Purpose

NASA TT provides a venue for spirited on-track competition with a high degree of both safety and convenience. NASA TT allows qualified individuals to compete in a "best lap time" format in a prepared car in advanced level open-passing sessions, and bridges the gap between NASA HPDE 4 and wheel-to-wheel racing.

#### 5. Driver Requirements/Licensing

The Regional TT Director must approve all drivers before they may compete. The minimum requirements for getting approval include:

- 1) Successfully completing a NASA HPDE 4 event, or current NASA Competition or Provisional Race License, or current Competition Race or TT license with various other organizations at the discretion of the TT Director, or an extensive verifiable driver history of open passing road course events or competitions with other reputable organizations (may include former racers without a current competition license, etc.) at the discretion of the TT Director and run group leader.
- 2) Exhibiting knowledge of the NASA TT rules, and understanding of the consequences of non-compliance.
- 3) Exhibiting understanding of the nature of NASA TT including the spirit of cooperation that is required between drivers on the track, and the high standard of driving performance and safety that is expected.
- 4) Exhibiting knowledge of the technical and safety inspection process.

After approval by the Regional TT Director to begin TT competition, the driver should purchase a Provisional TT License on-line before his/her first event. After filling out the NASA TT license application and getting the signed approval of the Regional TT Director, a driver may begin TT competition. After the driver completes one event day of TT competition, the Regional TT Director may (at his discretion) approve the application for a National NASA TT license, require an additional event day for evaluation, or deny the application and counsel the driver on what is needed to become successful at the next attempt. If approved, the Provisional License will be upgraded to a National Competition TT License by the Regional Director, and a hard card will be sent to the competitor. The NASA TT license is valid for use in any NASA region, and at the NASA Championship events. It is valid for up to one year, and will expire at the end of the calendar year of competition. Renewal (on-line) will only be an administrative formality provided that the driver competed in an event during the season. Renewal for drivers not competing in the prior year may require repeating the initial application process as described above.

Drivers who possess a current NASA Competition or Provisional Race License will not be required to also get a NASA TT License. However, over-aggressive driving in a TT session may put the Competition Race License in jeopardy.

A NASA TT license can be revoked for a variety of reasons, some of which include: giving false information on the application, failure to comply with the rules, unsafe driving, high incident count (spins/off), car contact (with objects or other vehicles), and unsportsmanlike conduct on or off the track. Licensed racers participating in NASA TT that commit any of the above infractions may be subject to suspension or permanent ejection from NASA TT competition, as well as revocation of their NASA Competition Race license.

## 6. **The Classes**

There are a total of eight NASA TT competition classes. Three are combined production and non-production racecar classes. Three are production car classes, one is an unlimited class, and the newest is the TTEV (Electric Vehicle) class. The classes are: TTU (unlimited), TT1, TT2, TT3, TT4, TT5, TT6, and TTEV (Electric Vehicle).

The classing rules for TT vehicles mirror those for the Super Touring/Super Unlimited race series. So, any car “legal” for an ST/SU race class will also be legal in the corresponding TT class. The classes “map” to each other as follows:

TTU = Super Unlimited	TT4 = ST4
TT1= ST1	TT5 = ST5
TT2= ST2	TT6 = ST6
TT3= ST3	

Based on the above mapping, the classing rules for the corresponding TT classes are found within the Super Touring Racing Rules. All references to each race class shall apply to the corresponding TT class. Any reference to the “Series Director” corresponds to the National TT Director. All references to the “Regional Series Leader” or “Race Director” correspond to the Regional TT Director.

TTEV is a class that only applies to Time Trial with no corresponding Super Touring class. The rules are in section 6.3.

### 6.1. **TTU, TT1, TT2, TT3, and TT4 Classing**

For TTU, TT1, TT2, TT3, and TT4 classing rules:

See “NASA Super Touring 1-4 & Super Unlimited Official 2020 National Rules”, (sections 4, 5.1, 5.2, 6, 7, 8.1, 8.2, Appendix A, Appendix B) as follows:

<b>4</b>	<b>Eligible Manufacturers/Models/Configurations.....</b>	<b>4</b>
	4.1 Super Unlimited (SU).....	4
	4.2 Super Touring (ST1, ST2, ST3, ST4).....	4
<b>5</b>	<b>Safety.....</b>	<b>5</b>
	5.1 Super Unlimited (SU).....	5
	5.2 Super Touring (ST1, ST2, ST3, ST4).....	6
<b>6</b>	<b>Modifications (ST1, ST2, ST3, ST4).....</b>	<b>6</b>
	6.1 Restrictions and Limitations for All Vehicles.....	6
	6.1.1 Active Aerodynamic devices.....	7
	6.1.2 Fuel.....	7
	6.1.3 Transmissions.....	7
	6.1.4 Tires.....	7
	6.1.5 Ballast.....	7
	6.1.6 Power Alteration & Wireless Hardware.....	7
	6.1.7 Tube-frame Chassis Conversion.....	7
	6.2 Restrictions and Limitations for All Production Vehicles.....	8
	6.2.1 Chassis and Body Modifications to Production Vehicles.....	8
	6.2.2 Production Vehicle Aerodynamics (ST1, ST2, ST3).....	10
	6.3 ST4 and ST3 Production Vehicle “BTM Aero” Modification Factor.....	10
	6.4 ST4 Specific Restrictions and Limitations.....	11
	6.4.1 ST4 Tire Limitations.....	11
	6.4.2 ST4 Aerodynamic Modification Restrictions and Limitations....	11
	6.4.3 ST4 Anti-Lock Braking Systems (ABS).....	12
	6.5 “Adjusted Weight/Power Ratio” Calculation.....	12
	6.5.1 Definitions (inc. NASA Section Width).....	12
	6.5.2 Modification Factors.....	14
	6.5.3 Non-Production Vehicles Approved for ST4.....	15
	6.5.4 Example Calculations.....	16
<b>7</b>	<b>Dyno Testing.....</b>	<b>18</b>
	7.1 Dyno Testing Procedures.....	18
	7.2 Average Horsepower Calculation.....	19
	7.2.1 Vehicle redline greater than 7000 rpm.....	20
	7.2.2 Vehicle redline between 6000-7000 rpm.....	20
	7.2.3 Vehicle redline less than 6000 rpm.....	20
	7.3 Dyno Compliance Inspections.....	20
<b>8</b>	<b>Forms, Inspections, Protests, Penalties.....</b>	<b>22</b>
	8.1 ST/TT Car Classification Forms.....	22
	8.2 Vehicle Inspection.....	24
	<b>Appendix A—Technical Bulletins for Specific Models/Items.....</b>	<b>26</b>
	Chevrolet Corvette C5 & C6.....	26

CTSC Tires.....	27
Factory Five Roadster and Backdraft Cobra.....	27
Ford Mustang (ABS in ST4).....	27
Ford Mustang and BMW E36 M3.....	27
Mazda Miata ('90-'05).....	27
NASA/Elan NP01.....	27
Nissan 350Z/370Z.....	28
Thunder Roadster tires.....	28
Thunder Roadster pre-'08 body/no-wing type.....	28
<b>Appendix B—BTM Aero Modification Factor non-BTM approvals.....</b>	<b>28</b>

## 6.2 TT5 & TT6 Classing

For TT5 & TT6 classing rules:

See “NASA Super Touring 5 & 6 Official 2020 National Rules” (sections 4, 5.1, 6, 7, 8.1, 8.2, Appendix A, Appendix B, Appendix C) as follows:

<b>4</b>	<b>Eligible Manufacturers/Models/Configurations.....</b>	<b>4</b>
<b>5</b>	<b>Safety.....</b>	<b>5</b>
	5.1 CCR Exceptions.....	5
<b>6</b>	<b>Modifications.....</b>	<b>6</b>
	6.1 Restrictions and Limitations.....	6
	6.1.1 Power Modification Limitations.....	6
	6.1.2 Tire Limitations (inc. NASA Section Width).....	6
	6.1.3 Chassis and Body Modification Limitations.....	8
	6.1.4 “BTM Aero” Modification Factor.....	10
	6.1.5 ST6 Aerodynamic Modification Restrictions and Limitations....	11
	6.1.6 ST5 Aerodynamic Modification Restrictions and Limitations....	11
	6.1.7 ST5 & ST6 Braking System Limitations.....	12
	6.1.8 Transmission Limitations.....	12
	6.1.9 Suspension Limitations.....	12
	6.2 Update/Backdate.....	13
	<b>6.3 “Adjusted Weight/Power Ratio” Calculation.....</b>	<b>14</b>
	6.3.1 Definitions.....	14
	6.3.2 Modification Factors.....	14
	6.3.3 Non-Production Vehicles Approved for ST5 & ST6.....	15
	6.3.4 Example Calculations.....	16
<b>7</b>	<b>Dyno Testing.....</b>	<b>17</b>
	7.1 Dyno Testing Procedures.....	17
	7.2 Average Horsepower Calculation.....	19
	7.2.1 Vehicle redline greater than 7000 rpm.....	19
	7.2.2 Vehicle redline between 6000-7000 rpm.....	19
	7.2.3 Vehicle redline less than 6000 rpm.....	19

7.3 Dyno Compliance Inspections.....	20
<b>8 Forms, Inspections, Protests, Penalties.....</b>	<b>21</b>
8.1 ST/TT Car Classification Forms.....	21
8.2 Vehicle Inspection.....	23
<b>Appendix A—Technical Bulletins for Specific Models/Items.....</b>	<b>26</b>
CTSC Tires.....	26
Ford Mustang and BMW E36 M3.....	26
Mazda Miata ('90-'05).....	26
<b>Appendix B—BTM Aero Modification Factor non-BTM approvals.....</b>	<b>26</b>
<b>Appendix C—Additional ST6 Eligible Vehicle Models .....</b>	<b>27</b>

### 6.3 TTEV (Electric Vehicle) Clasing

TTEV (Electric Vehicle) is an Open class for Tesla Model 3, Tesla Model S, Porsche Taycan, and other performance electric motor vehicle models as added in the future. HPDE technical safety inspection rules shall apply. No modifications are permitted to the factory motor, software, EV related safety features, or batteries (other than replacement of the 12-volt lead-acid accessory battery). All vehicles must use either tires with a UTQG treadwear rating of 180 or greater or the Toyo R888R. Note that future additional classing rules and/or Modification Factors may be added.

## 7. Timing & Scoring

### 7.1. TT Classification Forms

In order to accrue points or compete, each year/season, all NASA TT competitors (except TTU competitors) must submit a current year, completed NASA ST/TT Car Classification Form (and certified Dyno report) to the Regional TT Director prior to having lap times count toward competition. Once a form has been submitted during a season, if there are no modifications to the vehicle that would change the form, a new form does not need to be submitted at subsequent competitions in the same region. A new ST/TT Car Classification Form copy (and certified Dyno report) must be submitted when a competitor competes in a different region or at a Championship event, or if changes have occurred to the vehicle that would change the form.

Forms for TT1-TT6 and Dyno reports must be submitted online here:

<https://timetrial.nasaseries.com/forms-rules/>. However, until further notice, competitors must also print out the time-stamped .pdf version of their submitted form (that will be sent to them by e-mail), and submit it and the Dyno report to their regional TT Director.

TTU competitors do not need to submit any classification forms or Dyno reports.

If a competitor needs to make any changes to the Car Classification Form or upload new Dyno information, it should be done using the “edit” link sent on the original e-mail from NASA. If the e-mail is lost, use this edit link request page <https://airtable.com/shrNZXZOq89UMg6s5>

A competitor should only have one single ST/TT Car Classification Form and Certified Dyno Report uploaded at any given time for each vehicle in each class. Older submissions will be periodically deleted from the database by NASA, but only the latest submission is valid.

No changes may be made to the Form or to the vehicle that would affect the Form after the first competition session for the remainder of the event without the approval of the TT Director. Any approved changes will result all prior lap times being disqualified. It is at the discretion of the TT Director whether a disqualification penalty will apply if the changes are approved after a completed TT event day, but before the first competition session the following day. Note, specifically, this rule will deter most tire type/size and weight changes once competition has started. (NASA is moving in the direction of technical inspection digital and barcode identification and verification, and any changes made after competition begins will hamper this effort.)

Competitors are permitted (and encouraged) to enter an Average HP number on the ST/TT Car Classification Form that is higher than that showing on their certified Dyno report to allow room for Dyno variance (between pre-competition testing done by the competitor and any compliance testing performed by TT Officials.) Competitors may choose to forego Avg HP calculations for pre-competition Dyno purposes, and use the Maximum Peak HP of the highest Dyno run (or a number higher than Peak HP) for Adjusted Wt/HP Ratio calculations. However, if the actual vehicle weight is less than the Minimum Competition Weight listed on the ST/TT Car Classification Form, it will result in a D/Q.

A driver may choose to compete in a higher level ST/TT class than would be dictated by the “Adjusted Wt/HP Ratio

## 7.2 Timing Format

NASA TT competitors will be scored on a basis of their fastest lap time during an event day. Therefore, a regional NASA weekend would generally count as two separate event days, with points and awards for each day. NASA TT competitors will be timed continuously in each designated TT run session that they participate in (which could be a combined HPDE 4/TT run session or a TT-only run session). The sessions are typically between 15 and 30 minutes long. The fastest lap time from all of the sessions will be used as the basis for his/her score for the event. The first run session of the weekend will not count for TT competition, and will function as a warm-up practice session. The first session of subsequent days will count toward competition.

All competing vehicles must be equipped with a [MyLaps \(formerly AMB\)](#) transponder in order to obtain lap times. Many NASA regions offer weekend rentals of these transponders for those drivers that do not own one. It is the responsibility of the driver to check the posted TT results after each session to ensure that the correct name, car number, and TT class is listed. Failure to

notify the TT Director and Timing and Scoring officials of errors prior to the next session may result in disqualification of the previous and subsequent session's lap times. Teams must be especially careful to notify T&S of their team status/name at the beginning of the weekend, as some of the on-line registrations are input incorrectly by an individual member or owner of a team, and that individual's name is often transferred automatically to the T&S computer before the event, instead of the team name.

### **7.3 Regional Championships**

NASA TT competitors will accrue points only in their declared NASA TT class and only within the region sanctioning the NASA TT event they are competing in. Certain multi-region events will be designated as "crossover events", and the points earned by a visiting driver at such an event will be applied to both regions' championship series so the driver can choose to compete in either or both regions for the rest of the year. Note that drivers must submit a copy of his/her ST/TT Car Classification form when visiting another region at a crossover event.

NASA TT competitors will be allowed to drop at least their two lowest event day scores to arrive at their total score for year-end awards. The total amount of events scored for year-end award purposes will be the total amount of point's event days held in the region plus designated crossover events minus the number or designated "drop days". The Regional TT Director must declare which events, if any, will not accrue points. Also, a Regional TT Director may choose to increase or decrease the number of "drop days", especially if there are multiple crossover events. This information will be provided prior to any crossover events. Please consult your Regional TT Director for more information on which events in your region will qualify for NASA TT points. A driver must participate in a minimum of four (4) points event days (per class) to be eligible for championship series trophies, awards, or prizes at the end of the year (unless your Regional TT Director has announced otherwise). The NASA Championships event will count toward at least single event points in each region. However, a Regional TT Director may declare that certain events, including the Championship events, will count for either single or "double points" for that region.

Points will be distributed for each event as follows:

1st- 100, 2nd- 90, 3rd- 85, 4th- 80, 5th- 75, 6th- 70, 7th- 69, 8th- 68, 9th- 67, 10th- 66...and so on, subtracting one (1) point for each position after 10th. In the extremely unlikely event that two competitors end an event day with the same exact fast lap time, a tie will be declared, and both competitors will get the same number of points for the day. The next closest competitor will get points for the position two places down from the tied pair. Last place points will be given to registered competitors who drove on track (during a TT practice or competition session) but never received an official lap time due to a mechanical failure of the vehicle or a spin/3-off lap time disqualification. Drivers disqualified for other rules violations that do not have an official "legal" lap time, will not be given last place points for the event in their declared class. If the disqualification was due to the car competing in the wrong class, it will be at the TT Director's discretion whether to award last place points in the class that the car should have been competing in.

In the event of a tie for season points, the winner will be decided using the following criteria in the order listed, until the tie is broken:

1. Most 1st places
2. Most 2nd places
3. Most 3rd places
4. Most 4th places, etc.
5. Average points per event
6. Head to head battles (number of times driver “A” finished ahead of driver “B” when competing at the same events.
7. Add up each driver’s fastest lap times from head to head battles—Lowest total time.

#### **7.4 Declaring a Class**

Competitors must declare the class they are competing in at the mandatory morning meeting before any competition begins. This can be accomplished by pre-registering in the correct class or by announcing a change in the listed class during the meeting. Switching classes or late registration after the meeting is only permitted with the specific approval of the TT Director. A driver/team can choose to compete or accrue points in any class that is equal to or higher than the vehicle’s classification. For all classes (except TTU), the appropriate TT Classification Form must be filled out completely, scored, and show the appropriate final vehicle classification. The competitor can then declare on the form if the car will be competing in a higher class. Points will accrue only in the class declared by the competitor prior to competition. The competitor can switch classes, using the same vehicle on another event day, provided the above rule is followed and a new declaration is made to the Regional TT Director prior to competition. Points will then begin accruing in the new class. There will be no retroactive declarations or “points swapping” after-the-fact. A competitor can switch back and forth between classes multiple times on different event days, provided that appropriate class letters are designated on the vehicle, NASA Timing and Scoring is notified of the change in class to update the computer, and a permitted declaration is made to the Regional TT Director. (Note: This rule is advantageous to the competitor that is planning on making mid-season modifications to the vehicle that will cause the vehicle to jump up in class. The competitor can predict the class that the vehicle will eventually be modified to, and begin accruing points in that class from the start of the season, even though the vehicle may not be as competitive early in the season.)

#### **7.5 Vehicle Substitutions**

NASA TT is a contest between drivers or teams (see 7.7 Teams) competing in a particular class, and as such, a driver/team may change or substitute vehicles and continue to compete and accrue points for the season, provided that a NASA ST/TT Classification Form is submitted to the Regional TT Director and approved for the substitute vehicle prior to competition. The vehicle must be classified in the same, or in a lower class (higher class number), than that in which the driver/team desires to accrue points. The substitution can be for a single session or day (as in a substitution due to a mechanical malfunction of the primary vehicle), or it can be for any number of events remaining in the season. In the case of a temporary substitution where a car is entering competition midday, the driver/team must provide the Regional TT Director a completed Car Classification Form, and have the vehicle available for compliance inspection, at least one hour prior to the car competing. Only one vehicle substitution can occur for a driver/team per event

day. Once a substitution has occurred, the driver/team is not permitted to bring the original vehicle back into competition that day. There is no limit to the number of substitutions that can occur during the season, as long as the correct procedure is followed:

1. Provide the Regional TT Director with a new NASA ST/TT Car Classification form, and have the vehicle available for compliance tech inspection at least one hour prior to the first competition session for the vehicle. If the TT Director already has a completed Car Classification form for the vehicle (i.e., switching back to the primary vehicle on another day), then the driver must simply give notification of the substitution to the TT Director at least one hour prior to the first competition session for the vehicle.
2. Transfer the AMB/ MyLaps transponder, assigned car number, and class letters to the substitute vehicle, and disable any other transponder in the vehicle. If it is not possible to disable the transponder(s), then NASA Timing and Scoring (and the Regional TT Director) must be notified of the driver/team change and transponder issue before the lap times will count. As well, in that situation, consult your Regional TT Director and T & S to determine whether or not you should change the car numbers.
3. Do not attempt to run the original vehicle from earlier in the day after the substitution has been completed.

Since it is likely that a temporary substitute vehicle will belong to another TT competitor or racer, any error in switching transponders or notifying NASA Timing and Scoring and the TT Director may result in both competitors losing their prior lap times for the day if the correct (verified) driver/team is not listed on the timing and scoring computer. Also, multiple competitors cannot share the same vehicle during a run session, even if they are able to switch transponders. Only one driver may drive a TT vehicle per session.

#### **7.6 Competing in Multiple Classes**

A driver/team can choose to compete in multiple TT classes simultaneously on the same event day using one or more cars each with its own transponder; however, the driver/team must register and pay registration fees for the additional vehicle(s) even though there are only a limited number of TT and/or HPDE 4/TT run sessions. The driver will not be given extra track time in another run group (i.e. HPDE 3) to make up the difference. The driver/team must register all vehicles, make the declaration of running in multiple classes at a single event, and submit all TT Car Classification forms to the TT Director at the beginning of the day, before the first session. Late entries for additional classes will not be accepted or valid. In the case of a driver entering a single car in multiple classes, the driver must use a different transponder for each class, and pay registration fees for each class. This rule may be advantageous for teams that choose to run more than one vehicle, while it will be costly for a single driver. A team may not run more than one vehicle in the same class during a run session. Only one driver may drive a car during a run session—as above in 7.5, no sharing of vehicles during a given run session. Also, a driver may drive only one car during a run session. He/she cannot drive for part of a session in one vehicle, then switch to another vehicle for the remainder of the run session.

## 7.7 Teams

While NASA TT is primarily a competition between individual drivers in a given class, there are legitimate reasons for drivers to choose to compete as a team. Some of these reasons include: lack of funding to compete solo, inability to attend an entire season's events, pooled resources for doing repairs/maintenance/vehicle storage/travel, team sponsorships, expectation of a driver moving up to TT mid-season, and others. Teams are permitted in NASA TT, provided that specific guidelines are followed. While individual competitors will get recognition for their achievements using their full names, teams will be recognized only by their team names. Track records made by a member of a team will be recorded with the team name, not the individual's. Championship trophies, if engraved, will have the team name on them, and website results will list the team name.

A team is composed of two drivers. A driver may only be on one (1) team per TT class. All drivers must be approved for a NASA TT license before they can compete (see section 5), but unlicensed potential drivers can be listed on the team roster that must be turned in to the Regional TT Director before beginning competition as a team. The primary car owner will be the designated team captain. A team will be designated by the word "Team" followed by the team captain's last name, or the team captain's chosen name. The Regional TT Director must approve all chosen names. **The team must declare their driver list on the TT Car Classification form before they will begin to accrue points as a team. Prior points earned by either driver will not be carried over to the newly formed team.** Once the team is declared, the two drivers shall have their future points tallied together. Either driver may drive the car in practice or competition TT sessions at an event; however, both drivers must be registered for that event (if both are driving). A driver may collect points for himself/herself, independent of his/her declared team, as long as he/she notifies the Regional TT Director before the first competition session of the day. A team may not run more than one vehicle in the same class during a run session.

If a team splits up mid-season, the team captain will retain rights to the team name and the team's points, and may use either of the drivers on the original roster to continue to compete; however, all recognition for wins, track records, championship placing, etc. will still go to the team, not any individual.

A driver can be a member of more than one active team; however, he/she can only compete with one TT team on any given day. A driver may compete for one team and as an individual on the same day (in different classes), provided that appropriate registration fees are paid.

## 8. On-Track Procedures and Conduct

### 8.1. Regional Required Procedures

All regions will hold a Time Trial specific drivers meeting prior to the first on-track session of the event/weekend, where on-track procedures, regional nuances, and car class declarations will be discussed. All regions will hold at least one TT (or combined TT/HPDE4 if a mixed run group) download meeting each day after vehicles have been on track for a competition session.

Passengers are permitted at the discretion of the regional NASA Officials.

Cars will be pre-gridded based on their prior best lap times (“running grid”) except for the first session of the event, which will not count toward competition. The first session of subsequent days will count toward competition for that day. D/Q’s will be put into the T&S computer system at the end of each day. So, at times, drivers could be getting gridded based on lap times that will later be D/Q’d. Drivers should know their grid position before coming to pre-grid. All drivers should attempt to arrive at pre-grid 10 minutes prior to the scheduled session start time. The grid will be closed when the first TT car goes on track (may be closed earlier at the discretion of the region, with notification given in the TT drivers meeting). Once the grid is closed, cars arriving late will not be permitted to go on track without the specific approval of a TT Official.

The pole-sitter or pace car will take the cars out on track at 45 mph. This speed will be maintained until all cars are on track to provide the largest number of open hot laps to the group. Once all cars are on track, the pole-sitter or pace car will begin to pick up the pace (if a pace car is used, it will leave the track) so that vehicles can be at full speed through at least the final two turns prior to the start flag. Drivers should position their cars so there is about 1 second (7-10 car widths) behind the car in front of them at the green flag. During the “paced” lap and the first hot lap there is no passing permitted unless the passing driver is specifically given a point-by from the driver ahead.

Once a car enters the track, it is not permitted to enter the hot pits except to go to the black flag station or to exit the track. No work, adjustments, or tire checks may be done in the hot pits. Once a vehicle enters the hot pits, it must exit the track and go directly to Impound. The only exception is if a vehicle has entered the hot pits to go to the black flag station and the driver is instructed by a NASA Official to go back on track. All cars must report directly to Impound after exiting the track, regardless of how many laps were completed, unless there is a track exit sign directing only certain vehicles to impound. If a car has a mechanical failure, it must still report to Impound to avoid possible disqualification of that session’s lap times (even if it is on a flatbed).

Once a car is being held in impound, the driver may stay in the driver’s seat and wait for further instructions from TT/Tech Officials, or the driver may exit the vehicle and stand next to it, with the helmet and safety gear placed in the vehicle. The driver may not re-enter the vehicle until instructed to do so. The hood must remain closed, and nobody may test or work on the car; except, tire temps and pressures may be taken under the watch of TT/Tech officials. Tire pressures must not be adjusted until the vehicle is released from impound. Care must be taken when checking tire pressures so that air is not released. Any car that has been chosen by TT/Tech Officials to be Dyno tested that has been found to have had adjustments to tire pressures will have the tires inflated to 40 psi prior to the Dyno testing.

In order for a regional track record to be valid, the driver must get the car weighed and have the tires checked by Tech immediately after coming off track.

Disqualifications will be announced in the TT Download meeting(s), unless the TT Director contacts the driver(s) at another time to provide notification. A driver missing a required TT Download meeting where a DQ was announced shall be deemed “notified”.

## **8.2 On-Course Conduct**

NASA TT competition will take place during advanced-level, open passing TT run sessions or combined open passing NASA HPDE4/TT run group sessions at the discretion of the Event Director. All regulations applicable to NASA HPDE as set out in the NASA CCR will apply to NASA TT competitors. All NASA TT competitors are expected to drive in a safe and controlled manner in compliance with the NASA CCR’s, namely Sections 6 and 7. Any NASA TT competitor that places more than two wheels off course during an incident, or has both front or both rear wheels off course at the same time, will lose any timed result from that session. Any competitor who spins a vehicle greater than 80 degrees relative to the track direction or loses control of the vehicle such that it creates a potentially dangerous/hazardous condition if another vehicle was nearby will lose any timed result from that session. This rule specifically applies to any competitor who drops wheels off the track and “hooks” back across the track, regardless of whether the vehicle spins or goes more than two wheels off. It also applies to “tank-slappers” where the driver has to significantly slow the vehicle to regain control to the point that a closely following vehicle would be forced to make an evasive maneuver to avoid car contact. Also, any driver who’s vehicle hits a wall or another vehicle may be disqualified for any number of sessions, including the entire event, at the discretion of the TT Director. TT drivers MUST keep their vehicles under control at all times! Any driver with a passenger in the car that gets a D/Q for a session due to a spin or wheels-off incident will lose passenger privileges for the rest of the day. The TT Director has the discretion to not assess a penalty to a driver who had a spin or wheels-off incident as a direct result of un-flagged debris, collision avoidance, or a provable pre-incident mechanical failure. The incident should be discussed in a TT Download meeting, where competitors will have the opportunity to give their input. Drivers should expect that evidence such as a video recording may be required by the TT Director for these cases.

NASA TT drivers are held to a high standard in regard to track etiquette, driver cooperation, and sportsmanship. Any driver found by NASA TT administration to be “blocking” another car in order to slow the following driver’s lap time will be subject to harsh penalties, which may include expulsion from further TT competition. Drivers are cautioned not to deliberately draft with another vehicle, except immediately prior to making a pass. Prolonged drafting or “team” drafting may result in penalties for both drivers. In-car video is encouraged by NASA for a variety of reasons, and would be helpful to determine if a car is purposefully blocking or drafting. Any driver displaying unsportsmanlike conduct either on or off the track, driving in an over-aggressive manner, or failing to cooperate with other drivers on the track will be subject to harsh penalties, which may include expulsion from further TT competition.

## **9. Car Appearance**

### **9.1 Numbers and Class Designation**

All NASA TT cars must display a three-digit number on both sides and the front and rear of the car unless a one or two digit number has been assigned to that vehicle by NASA TT administration. Numbers must be of a contrasting color to the car or otherwise clearly visible, at least 10-inches tall with a 1.5-inch stroke for the sides, and four inches high for the front and rear. NASA TT cars must also display a class designation on both sides and the front and rear of the car in a four-inch height in contrasting color to the car. Class Designations shall be TT followed by the group number or letter. For example, a TT5 Class competitor would display “TT5” as a class designation. Vehicles that already have class letter designations for a single ST class may compete in the corresponding TT class without TT class letters on the vehicle (example: vehicle with “ST2” letters may compete in TT2 without having the “TT2” letters).

## **9.2 General Car Appearance**

All vehicles must be in good condition and appearance. Vehicles with excessive body damage, primered body panels, etc., are not permitted. The vehicle must meet the “50/50” rule, which means it must look undamaged and straight at fifty (50) mph from fifty (50) feet away.

## **9.3 NASA Decals**

All NASA TT cars must display a minimum of two NASA decals, one on the front and one on the rear of the vehicle. Additionally, if the competitor is participating in any contingency award program(s) or the NASA Championships, there must be two more NASA decals (on each side of the vehicle).

# **10. Safety**

## **10.1 Car Preparation, Technical Inspection, and Logbooks**

All cars must meet the HPDE safety and car preparation standards specified in Section 11 of the NASA CCR. All convertibles must meet the roll bar specifications contained in the CCR for HPDE participation (and any additional requirements by individual tracks). In addition to the HPDE safety rules, it is highly recommended that all TT vehicles carry a NASA CCR compliant fire extinguisher with a metal mounting bracket (not on the “A pillars”). As well, we encourage all participants to obtain and use as much CCR compliant personal and vehicle safety equipment as possible.

Front driver and passenger side fixed/Lexan windows are specifically not permitted unless they are factory installed during the manufacturing of the vehicle. Both front side windows must otherwise be in the down position while on track. (See TTU exception in Section 6)

As an added benefit for those that compete on a regular basis (especially those whose cars require a trailer tow to get to an authorized tech station): In lieu of the usual HPDE vehicle

technical inspection as outlined in the NASA CCR Section 11, a driver/owner that possesses a National NASA TT License may opt to follow a tech inspection process similar to that used by NASA racers in CCR Section 16, where the vehicle is issued a NASA TT inspection log book. However, the driver must be competent to perform a vehicle technical inspection. As well, in doing so, the driver/owner takes on the same responsibilities that apply to racers. As such, any driver failing to properly prepare his/her car as required by the tech sheet may be subject to license revocation, monetary fines, disqualification, or other penalties. All vehicles will be subject to random safety inspections while at the track facility. If at any time, illegal, non-conforming, or outdated safety equipment is found in or on the car, that equipment (in its entirety) will become the property of NASA. Additionally, the driver will be fined \$50 for each separate offense and will lose the privilege to forego the CCR Section 11 HPDE technical inspection process, and the logbook will be revoked. The same penalties shall apply if the driver/owner is found to have inaccurately performed the vehicle inspection, or falsified entries on the inspection sheet.

After a TT licensed driver/owner has accepted the above responsibility, he/she may be issued a NASA TT inspection logbook by his/her home NASA Region for a standard regional processing fee. The vehicle must then be thoroughly inspected by a NASA authorized inspector using the CCR Section 11 criteria. Subsequent inspection by a NASA authorized inspector is required on an annual basis each calendar year before the vehicle's first event, if the vehicle has been in a crash, had new safety equipment installed, or if the logbook notes indicate that re-inspection is necessary. At each event, the car must display the NASA annual tech inspection decal. Drivers that have a NASA Competition Vehicle Logbook for racing, and are compliant with Section 16 of the CCR, can follow those procedures in lieu of the above procedures.

It is expected and required that vehicles that will be participating in a NASA Championship event will have an Annual tech inspection decal prior to the Championships event (obtained during a regional event).

## 10.2 Download Sessions

NASA TT drivers are expected to attend every scheduled/announced "download session" after a run session (as are HPDE 4 drivers and instructors that choose to drive in a combined HPDE 4/TT run group). Failure to attend a download meeting without being excused by the Regional TT Director or his designee may result in loss of the previous session's lap times, and/or the next session's lap times or loss of track time for the next session (at the discretion of the Regional TT Director). Serial unexcused absences will result in TT license revocation. These post-run session meetings are a vital component of the NASA TT safety program.

## 11. Penalties

Various penalties are listed and underlined in the following sections of the TT Rules: (3, 5, 7.2, 8, 10.1, 10.2, 13).

The overriding rule regarding car classification will be, as written in Section 3, "...penalties for non-compliance with the rules will be harsh, and may include disqualification and expulsion from further NASA TT competition with a single infraction, regardless of the nature of the infraction." The penalty for serial non-compliance will be either expulsion from further NASA TT competition or suspension followed by classification in an unlimited class for any future events.

However, the **minimum** penalty for a driver found to be competing in a class that is too low (for whatever reason) or failing to meet the Minimum Competition Weight listed on the Car Classification Form at any time will be disqualification of all lap times **for the entire event day**. Competitors should optimize their listed weight and Avg HP on the Car Classification Form so they end up with an Adjusted Wt/HP Ratio at the limit for the class, leaving as much room as possible for both Dyno variance and weight. Since 7.4 does not allow a competitor to switch classes until a different day, the competitor may continue to drive in the remaining sessions for practice, but all times will be disqualified, and no points will be earned that day in that class, and it cannot be used as a "drop" day. It will be at the TT Director's discretion whether to award last place points in the class that the car should have been competing in. If the infraction is found on the first day of a competition weekend, the TT Director may allow (at his discretion) the driver to compete on the second day in the correct class (whether by up-classing, or de-modification of the vehicle). As well, if there have been no changes to the Car Classification Form that show evidence that a change was made to the vehicle that led to it becoming non-compliant at a certain point in time, or other evidence that the vehicle was compliant in previous events (such as official post-session weight inspections), or if the driver admits that, in retrospect, the car was not compliant at previous events, the TT Director may revoke all previous points in that class, with or without assigning last place points for the driver in the higher class for those events.

Any Procedural Violation of the rules that is found after a competition session will result in disqualification of the fastest timed session prior to the discovery of the Procedural Violation.

The following are all Procedural Violations:

- Failing to revise or resubmit a Car Classification Form after new modifications have been made
- Incorrectly assessing Modification Factors
- Failing to note all modifications that require Modification Factor assessment
- Failing a Dyno test (over the number listed on the Car Classification Form) by any amount (regardless of the measured Adjusted Wt/HP Ratio)
- Providing any incorrect information on the Car Classification Form

Failure of a competitor to report a mistake in scoring which benefits himself/herself is a form of unsportsmanlike conduct. Because NASA TT events are continuous throughout the entire day, and cars are subject to compliance inspection at any time while at the event, failure of a TT competitor to report to the TT Director a failed Dyno test in another competition series (while simultaneously competing in TT) shall be considered another form of unsportsmanlike conduct. The penalty for unsportsmanlike conduct may include expulsion from further NASA TT competition or suspension followed by classification in an unlimited class for any future events.

Drivers are encouraged to seek the advice of their Regional TT Directors (or National TT Director) for any questions about the classification and modification points rules pertaining to their vehicles, prior to competition. If a question still remains, the driver should request an inspection of the car or the parts in question by the TT Director for clarification, and assistance with appropriate vehicle classification.

## **12. Protests**

A competitor may protest the on-track behavior of another driver, or a suspected violation of the TT rules by another competitor. These protests should be made directly to the Regional TT Director. In the event of a conflict of interest, where the Regional TT Director is also a TT competitor and will be directly affected by the results of the protest, the TT Director shall appoint a substitute referee to handle the protest. Potential substitutes include the National TT Director, NASA Regional Director, Event Director, Race Director, or other National NASA Officials, depending on the nature of the protest. A driver may appeal the ruling of the Regional TT Director or “substitute referee”, in writing by e-mail, to the National TT Director [greg@drivenasa.com](mailto:greg@drivenasa.com), within 2 business days of the ruling. The National TT Director will then make the final decision as to how the issue will be resolved. In the event that a substitute referee was used to handle the initial protest, the Regional TT Director may also appeal the ruling to the National TT Director for final adjudication.

Any protest requesting a Dyno test of a competitor's vehicle will require the protesting competitor to submit a cash deposit in the amount necessary for NASA to obtain the Dyno test. If the protest is found to be valid, the deposit shall be returned to the protesting party, and the competitor that was found to be non-compliant will be required to pay for the Dyno test. If the vehicle is found to be compliant, the protesting party will forfeit the deposit, and it will be used to pay for the Dyno test.

Drivers may appeal any decisions made by a Regional TT Director regarding car classification or Modification Factor assessment to the National TT Director for final adjudication.

At the NASA Championships, the National TT Director will make final determinations on all TT protests and classing issues. In the event of a conflict of interest, where the National TT Director

TT license revocations can be made by: the Regional TT Director with NASA Regional Director approval, NASA Regional Director, National TT Director, Chief Divisional Director, NASA Chairman, NASA Vice President, and NASA Executive Director. These decisions are final, with no appeal per the CCR mechanism available. The competitor with a revoked TT license may reapply when authorized by the National TT Director, provided that he/she has not been permanently expelled from NASA. A new license may be granted at the discretion of TT administration at that time. As well, the competitor may be restricted to competing in one of the unlimited classes if the revocation was due to non-compliance with car classification rules.

The above rules will supersede NASA CCR sections 17.5.1, 17.5.2, and 17.5.3; however, the National appeals process listed in 17.5.4 will remain valid, with the exceptions that the words “Executive Director” will be substituted with “Executive Director or Executive Committee”. Section 17.6 Bad Faith Protests shall also be valid.

### **13. Vehicle Inspection/Impound**

All completed ST/TT Car Classification Forms will be available online for review by any competing driver. NASA TT series administration reserves the right to perform random vehicle inspections and/or impounds at any time that the vehicle is at the track facility. These inspections may be done for the purpose of rules compliance verification or for safety inspection. Inspections may be a simple visual verification or car weight measurement, or may be complex, involving internal inspection of part’s assemblies using bore scopes, diagnostic computers, compression testing/whistlers, Dyno testing, and/or disassembly and removal of parts for analysis. Although a rare occurrence, any requested disassembly will be the responsibility of the driver/owner to perform or to arrange for another mechanic to perform under the observation of a NASA TT inspector. The driver/owner will bear all financial responsibility for such disassembly and reassembly, regardless of whether or not the vehicle is found to be in compliance.

At random times or at the discretion of NASA Officials, any car may be ordered to report for rules compliance on a chassis dynamometer. All Time Trial competitors have the option to be present for official chassis dynamometer testing; however, the results of Dyno testing are the property of NASA, and will only be shown to Time Trial Officials, who will let the competitor know whether or not the vehicle was compliant, and may show the competitor the results at their discretion. Competitors must comply with any request by TT Officials to review and/or download ECU program “maps” using the competitor’s programming hardware and software, when such equipment is used by the competitor. As well, competitors may have GPS accelerometers placed in/on their vehicles at any time by Time Trial Officials to help verify rules compliance. And, as stated in classing rules, GPS monitoring may be used in lieu of Dyno testing when collected data shows convincing evidence of non-compliance.

Should a driver/owner elect not to participate in any requested inspection for rules compliance verification, he/she will be disqualified from the event, all season points will be forfeited, and he/she may only be permitted to continue to compete in one of the unlimited classes, at the discretion of the National TT Director.

#### **14. Website Posting**

A variety of useful information pertaining to our regional and National TT programs will be posted on the National NASA TT website <https://timetrial.nasaseries.com> as well as multiple regional NASA websites, <https://community.drivenasa.com>, and <http://www.nasachampionships.com>. This information includes the names, car numbers, and vehicle years, makes, and models of our competitors. It also includes event results, championship standings, narratives describing recent events, driver profiles (only when submitted by the driver), and photographs and video footage of our events and competitors.

#### **15. NASA TT Championship Events**

##### **15.1 General Info & Driver Eligibility**

The winners of each TT class at the NASA Championships Presented by Toyo Tires will be declared the NASA National TT Champion for that year.

In order to be eligible to compete in the NASA Championships a TT competitor must score TT points in **four** regional TT events, in any region, in any TT class, on at least four (4) different event days, prior to the registration deadline for the Championships.

Drivers should have regional experience driving in vehicles of similar performance characteristics to the vehicle they plan to compete with at the Championships. For example, a driver that usually drives a TT6 car may not be permitted to drive a TTU sports racer without showing evidence of prior experience in such a vehicle.

TT drivers are permitted to participate as a team under the following circumstances. The team must have been legally declared (7.7), and scored points in the required number of events above. However, each of the drivers must have personally driven in at least one session in each of the events used for eligibility. Either driver may drive in any or all of the competition sessions at the Championships under the team name. A driver participating with a TT team may only compete in a single TT class, and may not participate simultaneously as an individual.

Drivers desiring to obtain eligibility to compete individually at the Championships and use point scoring events where they drove as part of a team in regional TT events will need to obtain a

waiver from the National TT Director. Drivers arriving at the event without fully completing the above eligibility requirements will be penalized harshly, and may not be permitted to either compete or drive.

**All drivers should obtain a NASA TT Log Book (or Competition Race Log Book) for the vehicle before the event in order to avoid additional fees and possibly loss of track time at the Championship event.**

Each driver may compete in a maximum of two TT classes (must be as an individual, not as a team). If using a single vehicle, the classes must run in separate run groups. This may only be possible for a few vehicles to accomplish depending on the final published schedule of class and run group separation. If using multiple vehicles, each one must have its own transponder.

Car numbers will be assigned based on a first registered, first served basis for number choice.

The competition will be based on the single best lap time obtained by a competitor during any of the declared competition sessions for the entire event (Note: “event” in this case does not mean a single day of competition as in regional TT events).

## 15.2 Meetings

Drivers must attend all scheduled download sessions and meetings (usually a morning meeting and one or two download sessions), regardless of whether they drove in a session or not. If the TT Director (also called “Race Director” at this event) determines that a driver has an unexcused absence from a download session, the driver’s lap times from the previous fastest competition session will be disqualified. As well, the driver will be penalized and not allowed to drive in the next run session if the driver had an incident (DQ) in the prior session, and may be similarly penalized if his/her name or car number are brought up for discussion for other reasons. Drivers that are both competing in TT and racing in other run groups (or are officials/event staff), that have unavoidable time conflicts that prevent their presence at a download session or meeting, should notify the TT Director before the meeting and have a proxy (can be another competitor) attend the meeting for him/her. Having a proxy attend a meeting without requesting an excused absence prior to the meeting will not suffice, and penalties will apply unless there is an extraordinary circumstance. If that driver was involved in an incident of any type during the previous run session, he/she should report to the TT Director as soon as possible. Note: Lack of driving in the TT session prior to the meeting is not an excuse for missing the meeting. Drivers with an unexcused absence that did not drive in a prior competition session will not be permitted to drive in the following session. If a driver is leaving the event early, prior to the last session on Sunday, he/she must notify the TT Director so he/she can be excused from further meeting attendance.

Any driver failing to attend the initial mandatory TT meeting on the morning of the first day of competition without an excused absence by the TT Director will not compete on the first day. If the TT Director has the time to go over all of the information presented during the meeting with the driver, he may allow the driver to drive for practice (with DQ'd lap times) for the remainder of the day. In either case, once the driver arrives, he/she must still attend all of the download sessions, regardless of whether or not he/she drives. Similarly, for any driver that arrives on the second or final day of competition, the first morning meeting of that day will be considered to be his/her "initial mandatory TT meeting". Therefore, a driver that doesn't arrive until the final day of competition, and has an unexcused absence from the morning meeting, will not compete in the event.

### **15.3 Classification Forms & Vehicle Substitutions**

Competitors must upload an ST/TT Car Classification Form and certified Dyno report with the "NASA Region" choice "National Championships" prior to the event. All NASA TT Championships Car Classification Forms must be submitted to the TT Director at or before the initial mandatory morning TT meeting. A list of the four (4) Regional events (track and date) that the competitor is using for Championships eligibility must be written on the form. Any changes made to the vehicle during the event that would change anything written on the Form, must be approved by the TT Director.

Dyno sheets and Certification Forms must be labeled with the driver's name and car number, and attached to the TT Car Classification Form. Dyno sheets must be from the appropriate, approved dynamometer type (Dynojet only for FWD & RWD, and Dynojet, Dynapack, Dyno Dynamics, or Mustang for AWD cars). Failure to submit an appropriate Dyno sheet (when one is required, as above) will be penalized by disqualification in TT competition sessions #1, #2 and #3, and the car will continue to be disqualified for subsequent TT sessions until an appropriate Dyno sheet is submitted. If an AWD Dyno is not available at the track, the driver must arrange to have an appropriate Dyno test completed off-site before TT session #4 or subsequent TT sessions will not count toward competition (or the vehicle will be moved to TTU by the TT Director).

Vehicle substitutions may only be made at the morning meetings, and at no other times. Vehicles submitted for approval for substitution on the final day of competition must be available for technical compliance inspection, dyno testing, GPS monitoring, etc. during the entire day, beginning immediately after the morning meeting. The first session that a vehicle is driven in will serve as a practice session (does not count toward competition) for the driver, regardless of whether or not it is a designated practice session for the rest of the run group. So, a vehicle substituted on Sunday that does not go on track until the final session will not have lap times count toward competition.

Any potential change in class or addition of a second class after the start of the first competition session will be at the discretion of the TT Director, and will require the approval of the National TT Director.

#### **15.4 On-Track Procedures**

Passengers are not permitted. Any driver taking a passenger will be D/Q'd for that session and the following session (Note: Passengers are permitted in some regional event competition sessions.)

Cars will be pre-gridded based on their prior best lap times, except for the first practice session of the event. D/Q's will be put into the T&S computer system at the end of each day. So, at times, drivers could be getting gridded based on lap times that will later be D/Q'd. Drivers should know their grid position before coming to pre-grid. All drivers should attempt to arrive at pre-grid 10 minutes prior to the scheduled session start time. As soon as the prior session's group goes on track, the pre-grid is open. The grid will be closed when the first TT car goes on track. Once the grid is closed, cars arriving late will not be permitted to go on track without the approval of a TT Official.

The pole-sitter will take the cars out on track at 45 mph. This speed will be maintained until all cars are on track to provide the largest number of open hot laps to the group. Once all cars are on track, the pole-sitter will begin to pick up the pace. Drivers should position their cars so there is about 0.5 to 1 seconds behind the car in front of them at the green flag, taking care to avoid the appearance of drafting down the front straight. During the "paced" lap and the first hot lap there is no passing permitted unless the passing driver is specifically given a point-by from the driver ahead.

Once a car enters the track, it is not permitted to enter the hot pits except to go to the black flag station or to exit the track. No work, adjustments, or tire checks may be done in the hot pits. Once a vehicle enters the hot pits, it must exit the track and go directly to Impound. The only exception is if a vehicle has entered the hot pits to go to the black flag station and the driver is instructed by a NASA Official to go back on track. Note—rules regarding the hot pits may be different for the race classes. Do not confuse statements made at a racer's meeting with these TT Rules! All cars must report directly to Impound after exiting the track, regardless of how many laps were completed. If a car has a mechanical failure, it must still report to Impound to avoid disqualification of that session's lap times (even if it is on a flatbed or being towed).

Tire temps and pressures may be taken in the Impound/Tech area only, under the watch of TT Event Staff. Tire pressures must not be adjusted until the vehicle is released from impound.

Care must be taken when checking tire pressures so that air is not released when checking them. Any car that has been chosen by NASA TT Event Staff to be Dyno tested that has been found to have had adjustments to tire pressures will have the tires inflated to 40 psi prior to the Dyno testing. Cars must be released from impound by a TT Event Staff member. If a driver comes off track early, and there is not one there yet, he/she must wait until one arrives. If a member of the Impound/Tech staff is “releasing” a driver without TT Event Staff present, the driver must inform them that he/she has been impounded by TT Event Staff, and then ask where he/she should park the car until TT Event Staff arrive. Once a car is in impound, the driver may stay in the driver’s seat and wait for further instructions from TT Event Staff, or the driver may exit the vehicle and stand next to it, with the helmet and safety gear placed in the vehicle. The hood must remain closed, and nobody may test or work on the car. The driver may not re-enter the vehicle until instructed to do so.

Any vehicle that is unable to be Dyno tested for any reason when requested by TT Event Staff is subject to possible disqualification for the entire event or re-classification into the TTU class at the discretion of the TT “Race” Director.

Additional details on the format, schedule, and supplemental rules specific to the NASA TT Championships will be published at a later date on the <http://www.nasachampionships.com> website, <https://community.drivenasa.com> in the TT forum, and/or on the NASA National TT website <https://timetrial.nasaseries.com>

As well, Regional TT Directors will also disseminate this information, and registered competitors may be sent supplemental TT Rules for the event by e-mail directly.