

### 1. Purpose:

1.1. When you're ready to race against the clock, **Time Trials (TT)** is ready for you. The next level above track events, Unrestricted Time Trials builds on the instruction you received during Track events while allowing drivers their first chance at competing against the clock. Competition classes are formed with both street and fully-prepared race cars with winners being decided by fastest time around the course. Time Trials is your first real taste of track competition. Midwest Division Time Trials are intended to provide a competitive environment for advanced level drivers. It is an "point by" vehicle passing environment with scoring based on the lowest single lap time recorded in each session. Awards will be presented each the weekend and for the season.

### 2. Driver Eligibility (Updated 03-04-2019)

- **2.1.** Click the following link for <u>SCCA time trials driver eligibility and Time trials license</u> information.
- **2.2.** The MiDiv Time Trials Championship Series accepts Intermediate, Advanced and PRO Time Trials licenses. Those with a Novice license will need to email the registrar requesting a variance for licensing.
- **2.3.** Drivers may compete under a weekend membership as long as a Time Trials license application is completed, and they are approved for competition by the chief instructor.
- 2.4. The weekend membership option is available for ONLY two events attended during the 2019 season.
- 2.5. Time Trials license applications can be completed and approved at registration on the day of the event. However, it is encouraged to get the license process completed before the event. We can not guarantee participation for those who do not have proper licenses or Prior approved variance
- 2.6. Licenses from organizations that do not issue license cards (e.g. WRL, Chump car) may be accepted on a case-by-case basis at the approval of the Chief Instructor. Holders of these licenses are required to be a member in good standing and apply for an SCCA Time Trials or Full Competition License.
- 2.7. All drivers aged 16 to 17 must contact event officials before the event. A completed Annual Parental Consent, Release and Waiver of Liability, Assumption of Risk and Indemnity Agreement and a completed Minor's Assumption of Risk Acknowledgment is required (note: forms vary by state and witnessing method). Current SCCA membership is required.



#### 3. HELMET AND EQUIPMENT

- 3.1. Crash helmets approved by the Snell Foundation with Snell sticker 2010 or later Special Application SA2010/SAH2010, or SA2015/SAH2015, or by the SFI with a SFI Sticker SFI 31.1, or by the FIA standard 8860-2004 or later, or British Standards Institute BS6658-85 type A/FR.
- 3.2. There is a considerable gap between a minimum standard and the best protection that current technology can provide. It is recommended that seats, restraint systems, roll bars, and helmets meet the highest safety standards possible.
- 3.3. All participants shall wear long sleeve shirts, pants, socks and shoes which fully cover the foot at least to the ankle while on course. Clothes should be made of cotton or other flame-resistant material. No materials will be allowed that can readily catch fire or melt such as polyester or nylon. It is recommended that an SFI rated fire suit be worn with cars that have roll cages or other devices that limit your ability to exit the car quickly.
- 3.4. SFI fire-retardant gloves are recommended. If not available, then leather gloves without liners or with liners that will not readily catch fire or melt may be used. Cloth gloves of any type will not be allowed.
- 3.5. Any car/equipment that fully complies with the current SCCA Road Race GCR safety rules is deemed to have satisfied these safety rules.

#### 4. VEHICLE PREPARATION AND INSPECTION

- 4.1. The entrant is responsible for ensuring that the vehicle being used is properly prepared for operation under elevated acceleration, braking and cornering forces. Have a Tech inspection sheet completed and available to present to the SCCA tech inspector.
- 4.2. It is recommended that each vehicle should have a hand-held fire extinguisher that meets the following requirements.
  - 4.2.1. Halon 1301, 1211 or Dupont FE-36, two (2) pound minimum capacity by weight.
  - 4.2.2. Dry chemical, two (2) pound minimum with a positive indicator showing charge. Chemical: Underwriters Laboratory rating, potassium bicarbonate (Purple K) recommended, 1A10BC Underwriters Laboratory rating multipurpose, ammonium phosphate and barium sulfate or Monnex.
  - 4.2.3. AFFF (aqueous film forming foam) or equivalent surfactant foam material, 2.25 liter minimum capacity (by volume). All AFFF fire bottles shall incorporate a functional pressure gauge.
  - 4.2.4. The fire extinguisher shall be securely mounted in the cockpit. All mounting brackets shall be of the quick release type.



### 5. ELIGIBILITY OF VEHICLES

- 5.1. Closed wheel vehicles that are in compliance with road race, solo, rally or time trial rules are allowable.
- 5.2. All vehicles must provide factory original (or better) seats that are securely mounted, seat belts (SFI or FIA rated are recommended)
- 5.3. Convertible vehicles operating with the factory roll over protection system are allowable.
- 5.4. Other convertibles should have either a factory hardtop or a 4 point roll bar.
- 5.5. Drivers of open / Targa top vehicles are required run with arm restraints or with the top up.

#### 6. Vehicle Numbers/Stickers

- 6.1. All numbers shall be 1, 2 digit or 3 digit.
- 6.2. Numbers shall be displayed on the driver and passenger sides of the vehicle. Numbers shall be a minimum of 8" tall with 1 ¼" stroke on a *contrasting* background.
- 6.3. Class letters shall be a minimum of 4" with 3/4" stroke and displayed on the driver and passenger sides of the vehicle.
- 6.4. Series and series sponsors stickers are required for competition and will be provided by series. We need to support those that support our sport!!

### 7. General rules of the road

- 7.1. No driver, entrant, or crew may consume alcohol until all practice, racing, or track time for his group is finished for the day. Anyone who has consumed any alcohol on the day of an event, other than following the conclusion of his activities, shall not participate on that day, may be excluded from the balance of the event, and may be penalized. Alcohol may not be consumed in the pits until after all the day's on track activities are concluded. Performance impairing substances are prohibited at all times.
- 7.2. Unless specifically authorized by the Chief Steward, passengers are not allowed in a vehicle unless an instructor is driving.
- 7.3. The SCCA provides event liability and participant accident coverage for those who are properly registered (including waivers and credentials if necessary). Access to some areas requires SCCA membership (weekend memberships are available).
- 7.4. Everyone in attendance must properly follow applicable rules and regulations of the event.



#### 8. On Track Conduct

- 8.1. Drivers shall be in control of their vehicle at all times. Any 4-wheel off situation caused by drivers failure to maintain control will result in no further scoring of laps until driver reports to pit lane for a consultation. A second 4-wheel off situation will result in a forfeit of all lap times for the session and potentially other sanctions up to and including disqualification.
- 8.2. Mechanical failures resulting in a 4-wheel off situation are not considered as a drivers failure to maintain control. However, The driver should still report to pitlane for a consultation.
- 8.3. Penalties shall be enforced by the Chief Instructor. If a driver has an issue (protest) a ruling should be issued by the Chief Instructor which may be appealed to the Chief Steward whose decision is final.
- 8.4. Only the Chief Steward may disqualify or exclude a competitor. If the event is being run in conjunction with a Club Race event the Race Chair of the SOM's may hear an appeal of exclusion or disqualification. In standalone TT events, the Chief Steward's disqualification or exclusion is final.
- 8.5. Passing is allowed anywhere on the course unless otherwise specified in the event supplemental regulations
- 8.6. The driver being passed is required to provide a point-by indicating the side to complete the pass on. Initiating a pass without a point-by is prohibited. Once initiated, passes must not be contested.
- 8.7. Both drivers are responsible for giving each other adequate space to complete the pass as safely as possible. Half a car width between cars is recommended.

## 9. Timing and Scoring

- 9.1. All cars shall have a working AMB/MyLaps compatible transponder.
- 9.2. It is the driver's responsibility to ensure the transponder is functioning properly
- 9.3. Limited number of rental transponders may be available. Transponders can be reserved during online registration.
- 9.4. Times will be made available via print-out and/or the Race Monitor app available for Android or iOS devices.

### 10. Championships Points system

- 10.1. Competitors will accrue points only in their declared SCCA TT class.
- 10.2. Points will be awarded on a <u>session</u> basis. A event will include 2-3 timed sessions depending on the event.
- 10.3. Points will be awarded to competitors who finish at least 1 lap in any sessions.
- 10.4. The fastest lap time of the session will be used to determine the session finishing position by class.
- 10.5. Session points will be used for calculating season points for the championship.



- 10.6. A driver must participate in a minimum of 6 events (per class) to be eligible for championship series trophies, awards, or prizes at the end of the year.
- 10.7. The Season Festival event at RPM August 10th /11th 2019 will count for double points.
- 10.8. Points will be distributed for each session as follows:
  - 10.8.1.1. 1st- 50, 2nd- 40, 3rd- 35, 4th- 30, 5th- 25, 6th- 24, 7th- 23, 8th- 22, 9th- 21, 10th- 20...and so on, subtracting one (1) point for each position after 10th.
  - 10.8.1.2. In the extremely unlikely event that two competitors end a session with the same exact fast lap time, a tie will be declared, and both competitors will get the same number of points for the session. The next closest competitor will get points for the position two places down from the tied pair.
- 10.9. 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:
  - 10.9.1.1. Most 1st places
  - 10.9.1.2. Most 2nd places
  - 10.9.1.3. Most 3rd places
  - 10.9.1.4. Most 4th places, etc.
- 10.10. Season championship awards will be given to the top 3 positions in each class after the completion of all events.
- 10.11. Additional awards will be presented for the
  - 10.11.1.1. Fast Lap in each class for the event
  - 10.11.1.2. "Driver Awareness" award for the weekend. This awarded to the driver who uses judgement and skill to avoid on track issues. This is a very special award because the winner is determined by a vote of the workers for the weekend

## 11. Declaring a Class

11.1. Competitors must declare the class they are competing in at the time of registration or 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 registration. Switching classes or late registration after the meeting is only permitted with the specific approval of the Chief Steward. A driver can choose to compete or accrue points in any class that is equal to or higher than the vehicle's classification. For all classes, 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 Chief Steward prior to competition. Points will then begin accruing in the new class. There will be no retroactive declarations after-the-fact. A competitor can switch back and forth between classes multiple times on different days, provided that appropriate class letters are designated on the vehicle, Timing and Scoring is notified of the change in class to update the computer, and a declaration is made to the Chief



Steward. (Note: This rule will allow competitors who are planning on mid-season modification that will change class to declare a higher 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.)

11.2. Run groups will be set by class. If the run group car counts are not well balanced, every effort will be made to keep all cars of the same class in the same run group. Final determination of the run groups will be decided by the Chief Steward in consultation with the event chairman.

#### 12. Teams

- 12.1. While SCCA 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, instead of as individuals. Some of these reasons include: lack of funding, 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 legal in SCCA 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.
- 12.2. A team is composed of two to a maximum of four drivers. A driver may only be on one (1) team per TT class. The team must have a designated team captain. A team will be recognized by their team name. The Time Trials director must approve all chosen names. The team must declare their driver list on the SCCA 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 team drivers shall have their future points tallied together. Team drivers may drive the car in 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, if he/she notifies the Chief registrar 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.
- 12.3. If a team splits up mid-season, the team captain will retain rights to the team name and the team's points, may use any of the team 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.



### 13. Fuel Requirements

13.1. It is strongly recommended that pump gas, diesel or gasoline/alcohol mixtures up to E85 be used in competition vehicles. Race specific and other exotic fuels/additives can have components that cause very irritating fumes affecting our workers / competitors. Drivers will be required to declare their fuel at the time of registration and will be advised of possible risks. Any vehicle that causes unusual irritation may be disqualified. This rule is for the safety of our workers / competitors and will therefore be strictly enforced.

### 14. Competition Classes

- 14.1. Classing for Time Trials shall be based on the weight to power ratio of the car, driver (or lightest driver for teams) and safety equipment expressed in pounds per horsepower. Horsepower for the purposes of classing shall be the stock factory rated specification (SAE Crank HP) or from approved Dyno sheets. A car's weight shall be verified at the beginning of the event. The Wt/HP ratio will be modified per the tables below. Cars competing in Time Trials may be weighed at the at the end of the competition session for verification. If you are under the minimum weight to meet your class (including modifiers), you are subject to re-classing. For example, A car was classed using the pre-competition weight of 2120 lbs. and a SAE listed hp. of 136. With -1.5 in modifiers will be classed at 14.08 lbs./hp. or Prod B class. After the competition session, the car is weighted and now weighs 2100 lbs. due to fuel consumption. The car will now be at a Wt./hp. ratio of 13.86 and re-classed to Prod C. The Chief Instructor or Chief Steward has the right to issue a warning if deemed appropriate. If the minimum classing weight is violated a second time during the event you will be automatically re-classed.
- 14.2. Should you receive lap times that are significantly lower than closest competitor in class, the chief steward in consultation with the chief driving instructor has the authority to re-class the vehicle to a more appropriate class. Should re-classing be required, the lap times for the each session will be applied to the new class and points awarded accordingly.
- 14.3. **Production Class:** category for series produced production passenger cars that has been approved for on-road use. The following weight to power based ratio will be used for classing. It is the responsibility of the competitor to maintain ratio for your declared class.
  - 14.3.1. Production A (PA) = greater than 18.0 lb./hp.
  - 14.3.2. Production B (PB) = greater than 14.0 to 18.0
  - 14.3.3. Production C (PC) = greater than 10.0 to 14.0
  - 14.3.4. Production D (PD) = greater than 6.0 to 10.0
  - 14.3.5. Production E (PE) = 6.0 or less
  - 14.4. Allowed Modifications with no modifier penalty



- 14.4.1. Cars equipped with standard features or options from the factory that are covered in the modifiers are not exempt. In example, a vehicle that has a multi plane wing, dynamically adjusted from the factory will need to claim the appropriate modifier as listed below.
- 14.4.2. All Engine /ECU Modifications are open *if and only if* Dyno classing rules described below are used
  - 14.4.2.1. Each competitor shall provide wheel horsepower as measured on a dynamometer.
  - 14.4.2.2. 3 Dyno runs must be produced on a Dyno-Jet chassis dynamometer. All readings will be corrected to SAE J1349 Rev JUN90 (29.23 in/hg, 77F, zero humidity) and the dyno's smoothing function must be set to 5.
  - 14.4.2.3. Dyno sheets must be from the current engine configuration and not more then 12 months old
  - 14.4.2.4. If a Dyno-Jet brand dynamometer is not available in your area, sheets from other brands may be evaluated on a case by case basis.
  - 14.4.2.5. If you are not competing in the Divisional points, see section 14.5.4 for optional engine modification classing.
- 14.4.3. Up to 250 lbs. of ballast may be added to all cars as required, to meet minimum weight, provided it is securely mounted within the bodywork and serves no other purpose.
- 14.4.4. Intake up to the throttle body or carburetor is open
- 14.4.5. Exhaust downstream of the header is open so long as the exhaust exits in the OEM location or behind the rear wheels to a safe location.
- 14.4.6. Suspension
  - 14.4.6.1. Bushings, and sway bars may be modified or replaced.
  - 14.4.6.2. Non-adjustable after-market dampers are allowed.
  - 14.4.6.3. Additional bracing (e.g. strut tower bars) is allowed.
- 14.4.7. Brakes
  - 14.4.7.1. Any brake pad material may be used.
  - 14.4.7.2. Big brake kits with 4 or less pistons are allowed.
  - 14.4.7.3. Brake discs may be slotted or drilled. Non-ferrous discs are allowed only if offered by the vehicle manufacturer.
  - 14.4.7.4. Braided/stainless brake lines are allowed.
- 14.4.8. Drive train
  - 14.4.8.1. Gear ratio for the differential and transmission are open.
  - 14.4.8.2. Differential type is open.



14.5. Table of modifiers: The tables below are used to adjust a vehicles class based on modifications. These modifiers are meant to level the playing field while not restricting the participant to the typical "Class Approved" modifications found in other series.

#### 14.5.1. Aero Modifiers

-0.1	Simple rear spoiler, fixed wing, side skirts, splitter/air dam
- 0.2	Diffuser, flat underbody, Aftermarket nose
-0.4	Multi-plane fixed wing, Dynamically adjusted

#### 14.5.2. Brakes Modifiers

-0.1	Aftermarket racing 2 - Piece rotors
-0.4	Aftermarket or OEM multi-master cylinder system, caliper with greater than 4 pistons. ABS reprogram or swap
-0.6	Aftermarket or OEM 6+ piston systems, non-ferrous rotors. Aftermarket or race-developed ABS systems



#### 14.5.3. Suspension Modifiers

-0.2	Adjustable shocks, max 2 way adjustable (Standard Koni, Bilstein, etc.), re-valving or re-oiling stock shocks
-0.4	Performance mono-tubes, max 3 way adjustable (MCS, Moton, Penske, etc.)"
-0.8	Electronic/in-car adjustable shocks, modified suspension mounting points
-0.2	Adjustable perch dampers such as coil overs or weight jacking systems that allow for corner weighting of the vehicle
-0.2	Camber adjustment devices (Plates, ball joints , bushings, etc)

## 14.5.4. Engine Modifiers: The table below is used to modify the base classing. <u>These will not apply for Dyno classed vehicles</u>

-0.25	Intake manifold swap or modification
-0.15	Header swap or modification
-0.2	Injector/carburetor swap or modification
-0.3	Performance cam or regrind
-0.4	Overbore (0.060+)
-0.4	Stroke increase
-0.4	Compression ratio increase
-0.5	Head swap
-0.5	Head porting



-0.3	Oversize valves
-0.75	Programmable, flashed, or chipped ECU on a NA vehicle
-1.0	Programmable, flashed, or chipped ECU on a stock forced induction vehicle including up to 5 PSI boost increase over stock.
Dyno or specific Evaluation	Forced induction added to NA vehicle. Includes Programmable, flashed, or chipped ECU.

14.5.5. Tire Width Modifier: The following table uses the vehicle weight divided by the metric tire width to determine a modifier. For example a 2500lb. vehicle with 225 mm tires would receive a score of 11.1 which equates to a modifier of 0.0. Vehicles with staggered tire widths shall use the largest width for determining the modifier

Tire width Modifier	Less than 8.0 lbs./mm tire width	-1.2
	Greater than 8.0 to 11.0	-0.6
	Greater than 11.0 to 14.0	0.0
	Greater than 14.0 to 18.0	0.6
	Greater than 18.0	1.2



UTQG DOT tire with tread wear rating	180 or higher	Free
	179 to 100	-0.3
	100 to 60	-0.6
	Less than 60	-0.9
	Auto cross compounds or Non- DOT approved: (Hoosier A7, Goodyear Eagle RS AC, Hankook Ventus Z214:C71,C91)	-3.0

- 14.5.6. Electric Drive train: Weight to power ratios will apply to the actual delivered horsepower based on the controller settings (e.g. Ludicrous mode). Modifier for the electric drivetrain is -1.3 added to the weight to power ratio.
- 15. **Prototype** category is comprised of purpose built tube frame or monocoque race cars. Spec ford racer and other sports racer cars fall into this category.

Class	Wt./power	
P1	Less than 10.0	
P2	Greater than 10.0	

16. Prototype class will have only the following modifiers

Sequential Transmission		-0.2
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