



and

Into the Night Rally Team present

THUNDER ROAD 2023

June 17, 2023

An SCCA National Tour Rally

Event General Instructions

1. Overview

THUNDER ROAD 2023 is an ITN/Cal Club Region SCCA Time-Speed-Distance (TSD) National Tour rally that will use the Richta GPS Checkpoint app system for timing and scoring. This event is a Monte Carlo style rally with emphasis on driving open, sweeping, challenging roads. We will be running a very scenic course through the San Gabriel and southern Sierra Nevada mountains, and the open vistas of the Antelope Valley. Your goal is to enjoy yourselves following the rally route using the written Route Instructions to arrive at each Checkpoint at precisely the correct time.

Each rally team will be required to bring a smartphone (or other device) that is GPS enabled, has a data plan (or wi-fi), and has the Richta Competitor app installed. This free app will monitor your car's location during the rally and will record your arrival time at each Checkpoint. Once you have arrived at a Checkpoint, the app will calculate your score for that leg and display it to you. You should not stop at Checkpoints, just continue rallying until you reach the next Restart point as identified in the Route Instructions. There will generally be multiple timed Checkpoints between Restart points. Being a Tour rally, there are no traps of any kind on this rally.

You may creep or stop on course out of traffic lanes without penalty, anywhere it is safe to do so. Whenever you creep or stop like this, please use your emergency flashers.

2. Committee

Rallymaster, Registrar and Chief of Waivers
 Safety Steward, and Rally Chair
 Precheck

Joe Akerman
 Paul McGaffey
 tba

3. Registration

Car numbers will be assigned prior to rally day with a traditional random draw.

Rally Headquarters is at the Holiday Inn Express and Suites, 27501 Wayne Mills Pl., Valencia, CA 91355. The actual rally Start is at the “Dennys” sign on Wayne Mills Pl. (see Route Instructions). Check-in opens at 9:00 AM at Rally Headquarters (poolside if weather permits). The driver will be required to show a valid driver’s license at registration. Also required is proof of current insurance for the car entered. Both driver and navigator must sign the SCCA waiver, and complete the vehicle inspection and emergency contact form. Anyone in the car who is under 18 years of age must submit in advance an online SCCA minor waiver AND the online parental release form signed by their parents or legal guardian(s). Email carzero@aol.com for the link to these forms.

Route Instructions will be given out at Rally Headquarters (poolside if weather permits) beginning at 9:30 AM plus your car number in minutes. Cars start the rally at 11:00 AM plus car number in minutes. However, Start time is Free. You may leave Start any time prior to your official Start Time. There are several breaks during the rally with fuel, charging stations and restrooms available. Each entry must have two people (and only two) in the car – a driver and a navigator. You are expected to drive safely and courteously and obey all posted speed limits and the California Vehicle Code at all times. Please respect all local residents, pedestrians, bicyclists, and other drivers. Rude or reckless driving is grounds for disqualification.

Questions about this event may be addressed in writing to the Rallymaster, Joe Akerman, at carzero@aol.com.

4. Schedule, Saturday, June 17, 2023

09:00	Registration and Check-in open at Holiday Inn Express.
09:30 (+ car number)	Route Instructions issued.
11:00 (+ car number)	First car out.
19:30 (approximately)	First car to Finish.

5. Timing

Checkpoint timing is to the nearest tenth of a second. Timing error will be penalized at one point per tenth of a second (0.1) early or late. Maximum Timing Error is 30 seconds (300 points) per leg. Checkpoint CZTs (Car Zero Times – see page 6) will be listed in the Route Instructions in hours:minutes:seconds using a 24 hour (military) clock format. All CZTs are rounded to whole seconds. So 14:30:30 should be read as 14:30:30.0.

All Restarts in this event are Car Zero Time (CZT) Restarts. The CZT Restart is a specified time of day to which you add your car number in minutes to determine your proper Restart time from that point. For example, if you are car #12 and the CZT is 14:30:00, your Restart time would be 14:42:00. Your Richta app should alert you just prior to your arrival at each Restart point, and your Restart time should be shown on the app.

All Course Controls on this event are “on-course” Course Controls intended to verify your position and time on the route. No times will be scored at these Course Controls.

In the event of a tie in total score within a class, the tie will be broken using the Lowest Score method, i.e., the contestant having the most leg scores of zero (“0”) will be awarded the higher finishing position. If a tie still exists, this procedure will be repeated by incrementing the score by one, and repeated until the tie can be broken. If a tie still exists, then the most consecutive zeros, etc. will be used to break the tie.

6. Speed and Distance

Mileages were measured in a 2013 Subaru Impreza WRX with an Alfa Elite Rally Computer using a Hall effect sending unit using 2 magnets on the left rear wheel. Tires were inflated to 35 psi cold. The weather was dry with temperatures from 67° to 75° F. Mileage was measured to the nearest 0.001 mile and then rounded to the nearest 0.01 mile. Since all Checkpoints have CZTs, Official Mileage is intended to be used as a navigational reference only.

Official Mileage (OM) is the distance, in miles, from the last point of zero mileage to the specified Route Instruction action point. Official Mileage reverts to zero at each Restart point and at other points specified with a “/0.00” designation in the Route Instructions. OMs at intersections are measured at the center (apex) of the intersection. The rally begins with an Odometer Calibration Run (during which there are no timed Checkpoints). The Odometer Calibration Run is designed to allow you to compare your odometer to the Rallymaster’s odometer, if you wish.

There are no set CASTs (assigned average speeds) on this rally. Timing was at least 2 mph LESS than the speed limits with pauses included at all STOPS and TRAFFIC LIGHTS, as well as where otherwise needed. The goal was to have speeds that were “just right” -- brisk, but not too brisk. All Control locations were recorded using a BBB100-3 running Android 7.1.1 and using a Dual 160 GPS receiver. It would typically report an accuracy of $\pm 2.0 - 2.8$ meters during the process of setting control locations.

7. Route Following Rules

While you’re out there enjoying yourselves traveling the rally route, please apply the rules below in the order listed:

- i. **Obey an emergency rally sign.** These signs will be posted in a prominent location. They will have the notation “TR” (Thunder Road) and important

information. Emergency signs would be used to compensate for a missing sign or an unexpected road closure.

ii. Execute a route instruction, even if it takes you in the same direction as rule iii (below).

iii. Follow the principal road. The principal road is the obvious continuation through an intersection of the road upon which you are traveling. At some intersections this principal road may be determined by pavement surface continuity, a curve warning sign, the center line on the pavement, the placement of a stop sign or a yield sign, the continuation of multiple lanes in your direction of travel (such as when you are upon a limited access highway), straight as possible, etc. If the principal road is not obvious, a route instruction will be provided.

8. Controls and Scoring

All Controls (including all Timed Checkpoints, Restarts and Course Controls) on this event will be GPS controls. All GPS controls on this rally will be identified by prominent signs listed in the Route Instructions and referenced with an Official Mileage.

Timing at all Checkpoints is from the prior Restart point to that Checkpoint.

This rally will utilize the Richta GPS Checkpoint app system for timing and scoring. Contestants must download the Richta Competitor app and keep this app running on their smartphone or other device at all times during the rally. Contestants should have an active data service (cellular or wifi) and keep their device running the Richta app connected to that data service at all times during the rally so that the scoring team can monitor the progress of the event. Contestants may not run the rally with their device in Airplane Mode, or otherwise disable their data connection during the event.

The Richta app will monitor your car's location using GPS and will record your arrival time at each Checkpoint. The app will display your time of arrival to the second, compute your score, and display your score to you. It will tell you if you are early or late.

If you are delayed along the rally route for any reason, you may submit a time allowance with no explanation and without any penalty. Hence, if you are delayed due to road blockage, slow traffic, getting lost, nature call, or any other reason, do not speed to try to make up the lost time. Submit a time allowance by pressing the TA+ button on the Richta app. The first button press creates a 10 second time allowance. The second press creates a 20 second time allowance. The third press creates a 30 second time allowance. Each additional press adds 1 minute to your time allowance up to a maximum of 19 minutes 30 seconds. Pressing the TA- button will remove time in the same increments.

Any time allowance you entered will persist until the next restart point, at which point it will reset to zero.

It is up to the contestants to pay attention to the time allowance and be sure that it shows what you want. If you are delayed, you must enter the time allowance PRIOR TO your arrival at the next Checkpoint. Once you arrive at a Checkpoint, it is too late to submit a time allowance for the leg that just ended there.

9. Rally Clock Time and the Richta Competitor App

The Richta Competitor app displays a Rally Clock. If you are running this app on an Android device, do not be concerned about any discrepancy between the Rally Clock and official time (WWV). The Richta Competitor app on Android phones uses the time contained in each GPS location message to compute your arrival time at checkpoints. The Rally Clock is very close to that GPS time, but any discrepancy will not affect your recorded arrival times.

The Richta Competitor app running on an iOS (Apple) device *DOES* use the Rally Clock time to compute your arrival time at checkpoints. Therefore, if you are using an Apple device, you should compare the Richta Rally Clock time to WWV. You can reach WWV at 303-499-7111. (You will need to use a phone other than the one running Richta.)

If you are not satisfied with any discrepancy between these two, you can adjust the Rally Clock. Touch “Settings” in the lower left corner. You will see four gray buttons that allow you to create a custom offset that will adjust the Rally Clock. The Apple iOS operating system does not allow the Richta app to read the timestamp in the GPS location message (like the Android operating system does). The only time available to the Richta app on Apple devices is the device clock itself.

10. Classes

All Contestants - please register in one of these five Classes:

Class E (Equipped): There are no restrictions on calculating equipment in this Class. Typical calculating devices in this Class include: Alfa, Chronar, Timewise, and Zeron rally computers.

Class L (Limited): All distance information is derived from any of the following: the vehicle’s electronic system, the vehicle’s speedometer cable, or pulses generated by the movement of the vehicle (e.g., magnets mounted to the drivetrain, or GPS devices). Calculating devices are limited to those that **require manual entry** of the distance information (e.g., Curta calculators, tables, laptop computers, electronic apps, programmable and non-programmable electronic calculators). Readouts that continuously show the difference from either the perfect time or the perfect distance are prohibited in this class.

Class G (GPS): All distance information must be derived from a GPS source. Calculating devices may be any electronic device (e.g., Simple Rally Computer apps) and a GPS-Pulser or other GPS source providing distance input to a Rally computer.

Class S (Stock): Any distance information used for timing calculations must be visually acquired from the vehicle's stock, non-adjustable odometer in the stock location. Any calculating device may be used as long as the distance information from the vehicle's stock odometer is **manually entered** into the device. GPS odometers may be used in this Class only if their information is NOT used for any timing calculations or for any determination of earliness or lateness.

Class N (Novice): No person in the vehicle has competed in more than 3 Navigational (Time-Speed-Distance) rallies, nor has won at least one Navigational (Time-Speed-Distance) rally trophy in any class. The Class S equipment limitations also apply to Class N. For purposes of the SCCA annual championship and lifetime points, Class N will be included in Class S.

11. PRECEDENCE

This event is an SCCA National Tour Rally conducted in accordance with the SCCA RRR's (Road Rally Rules). Anything not covered in these Event General Instructions (above) is covered in the RRR's, subject to the following exceptions --

12. EXCEPTIONS TO RRR's

Article 23, B.1.

Delete "both paved and unpaved" and replace with "only paved."

(For this rally, only paved roads are to be considered eligible rally roads.)

At the end, add "When told to "IGNORE" a sign reading "Road Closed" or "No Outlet", do so. Each specific road so instructed shall be considered an eligible rally road."

Article 23, C.1.

Add a second sentence, "All quoted signs will be on your right or overhead, unless instructed SOL (meaning Sign On Left)."

Article 23, C. 3.

Delete "may or may not" and replace with "may only."

(For this rally, referenced signs may only apply to the road you are on, and to your direction of travel.)

Article 27 Glossary.

Between "Crossroad" and "DIYC", insert "CZT means Car Zero Time. Add your car number in minutes to the CZT to get your Target time for that Restart, Checkpoint or Course Control."

Article 27 Glossary.

Between "DIYC" and "Free Zone", insert "FPR means Follow Principal Road." (See section 7.iii. above.)

Article 27 Glossary.

Between "Sideroad" and "Stop", insert "SOL indicates Sign On Left."

Article 27 Glossary.

Between "TA" and "Traffic Light", insert "Target Time – your intended time to pass the referenced Restart, Checkpoint or Course Control. Add your car number in minutes to the CZT to get your Target Time for that Restart, Checkpoint, or Course Control."

Instructions for the Richta Rally app

1. Load the Richta Competitor app on your smart phone or other device.
2. Make sure your device is not in Airplane Mode.
3. On your smart phone or other device, close all apps other than Richta.
4. If you are using an Android device, go to phone setting under locations and set for high accuracy and remove permissions for all apps other than Richta.
5. Open the Competitor Richta Rally app.
6. The first page is "Choose Your Event." Find "Thunder Road 2023" in the list and click on it.
7. The second page requires the rally password. Enter the password given in your Route Instructions and tap the Continue or Save button.
8. On the next screen, enter the car number you are assigned in the first box.
9. Enter your own password in the second box. Use a simple one you won't forget. (This prevents other people from logging in with your car number.)
10. Tap the Continue or Save button.
11. The next screen requests your class. Please enter Class E for Equipped, L for Limited, S for Stock, G for GPS Computer, or N for Novice.
12. Please enter your email in the email box.
13. Enter your partner's and your first names in the "Team Name" box. (Example - "Paul/Joe").
14. In the "phone" box please enter the number of a cell phone in your car that is not running the Richta app, so we can contact you in case of an emergency.
15. Tap the Continue or Save button.
16. You will then see the rally screen.
17. Check the GPS Accuracy. If it displays a number like 8 meters or less, then you are ready to run the rally. If it does not, come and talk with us.
18. Your device will NOT need to be in cell phone service range during the entire rally in order for this app to work. The app only needs location information from the GPS signals during the rally.
19. You MUST keep an eye on your device to make sure that the Richta Competitor app is still running and is on your device's screen. If your device reverts to its home screen, then the Richta app may not sense your arrival at a checkpoint.
20. The Competitor app will normally have the display on at all times. This uses a lot of power. To avoid having your device shut off during the rally, please keep it charging at all times.

