Richta GPS Application Scoring Addendum to the General Instructions

Presented by ABC Region Sports Car Club of America

1. Overview and Philosophy

This Time-Speed-Distance (TSD) rally is designed to introduce the local rally community to a new, state-of-the-art method of timing and scoring road rallies. Your goal is to follow the rally route using written Route Instructions and arrive at each control (Checkpoint) at precisely the correct time. Each rally team will be required to bring a smartphone that is equipped with the Richta Autonomous GPS Checkpoint App. This app will monitor your car's position during the rally and will record the precise time at which you arrive at each Checkpoint on the rally. Once you have arrived at a control, the app will calculate your score for that leg and display it to you. You can expect to encounter more than 20 timing controls in the approximately 75 mile long rally course. The course following is designed to be simple and very straight forward. **The goal is to insure no one goes off course or get lost.**

2. Time/Timing

Timing will be in hours, minutes and **seconds**. The Richta Checkpoint app records your arrival time at each control using the time stamp in each GPS location message. This GPS time comes from the atomic clocks that are onboard each GPS satellite.

3. Controls and scoring

This rally will utilize a new procedure for timing at controls. Contestants must download the Richta GPS Competitors app and keep this app running on their smartphone at all times during the rally. The Richta app will monitor your car's location using GPS and will know when you pass each control location. The app will record your time of arrival to a resolution of 0.1 of one second, compute your score, and display your score to you. If it's not zero, it will tell you if you're early or late.

If you are delayed along the rally route for any reason, you may submit a time allowance without any penalty. Hence if you are delayed due to road blockage, slow traffic, getting lost, or any other reason, do not speed to try to make up the lost time. You submit a time allowance by pressing the TA+ button on the Richta app. The first button press creates a 10 seconds time allowance. The second press creates a 20 second time allowance. The third press creates a 30 second time allowance. Each addition press adds 1.00 minute to your time allowance up to a maximum of 19.50 minutes. Pressing the TA- button will remove time from your time allowance by the same increments. Your time allowance will persist until the next restart point, unless altered by you, at which point it should reset to zero. It is the contestant's responsibility to pay attention to the time allowance and be sure that what it shows is what you want. If you are delayed, you must enter a time allowance BEFORE you arrive at the next control. Once you arrive at a control, it is too late to enter a time allowance for the leg that just ended.

It is strongly advised to cross the Checkpoint line at the assigned average speed. Do not stop, creep, or back up within 300 feet of any control. If you do, you run the risk of being mistimed. Checkpoints will NOT be identified by a traditional Checkpoint sign.

All Checkpoints will be identified in a Route Instruction. There are two types of Checkpoints. CZT Checkpoints and TIMING Checkpoints. CZT is the abbreviation for Car Zero Time. CZT is the exact time that a phantom car

numbered zero is due to depart from a point. Your car will be due to depart that point at the CZT time plus your car number in minutes. The Rickta app will bing bong you with the exact time. TIMING Checkpoints are where your car in timed and judged by how close you are to the precise time. Most Checkpoints will be numbered and identified as either a CZT or TIMING Checkpoint at the end of the Route Instruction in parenthesis.

Both Examples:

30	Restart at Stop at 11:15 plus your car number in minutes. Zero your odometer. CAS 34. Leave this restart point by going Right on Three Bridge Rd. (CP 7: CZT)
32	Checkpoint at "Drug-Free School Zone". (CP 8: TIMING)

You can treat these marked controls just like any passage control, that is, you'll try to pass the sign at precisely the correct time. Moments after you pass the control, your smartphone will sound a tone and display your arrival time, your leg score, and whether you were early or late. You should continue rallying on time until you reach the next restart point as identified in the Route Instructions. The rally begins with just one marked control and then a restart point. But it quickly advances to multiple controls between restart points. In these cases, if you are late at a control you'll want to either catch up or take a time allowance before the next control.

Timing at all controls is from the prior restart point to that control.

Do not stop at any Checkpoint. Continue rallying on time as if there had been no Checkpoint. If you arrive early at a control, you should then slow your speed in order to get back on time for the subsequent control. You should continue to rally and maintain the assigned average speed until you reach a restart point. Restart points are identified in the Route Instructions with the words such as "Restart here at x:xx". The Richta app and the Route Instructions will inform you of your restart time. You should have a couple of minutes to stop and relax at each restart point. If there is a discrepancy in the start times use the one provided by the Richta app.

Mileage on the Route Instructions are sometimes rounded to the nearest hundredth. If those mileages are used for calculations they are used as thousandths.

There is a 0.20 mile distance with no controls/Checkpoint after each of the following points:

- every Stop, **not having a pause** (Stop sign requiring the rally car to stop)
- every start/restart point
- every timed control/Checkpoint

Penalty points are: .1 point for each **tenth (.1) of a second** early or late at a control, up to a maximum of 120 points (2 minute) per control.

Clarification: CZT Checkpoints are not scoring opportunities.

For this event, the official time at the TIMING Checkpoints are based on the calculated time from the prior restart.

4. Using the Richta app

Contestants will need to preload the 'Competitor – Richta GPS Checkpoints' app. You cannot run any other apps on this phone during the rally. If you are planning to use any other app during the rally, you'll have to do so on a

separate device. This app uses a fairly large amount of battery power due to its use of GPS. You should plan to have your smartphone connected to a power supply during the rally and the smartphone need to have the GPS (Location Services) turned on). If you are unsure if your GPS is active, please check with the event organizer who can assist you.

Two weeks prior to the rally all registered teams will be given information on how to download this app and their assigned car number. You will also be downloading specific data about the rally (Checkpoint locations and leg times), although this data will not be visible to you. At rally registration, we will tell you which version of rally data you should have on your phone. If you have an older data version (lower number), you must upload the current data version. There will be people at registration who can help you with this.

Your phone will NOT need to have a cell phone signal or data signal during the rally in order for this app to work. The app will have downloaded all necessary information prior to starting the rally. During the rally it only needs a GPS signal. We have tested this app many times on this rally course and found that it is reliable at all Checkpoint locations and in a wide variety of weather conditions.

You will know that the app is running by noticing the running time-of-day clock and if the app should crash during the rally, simply pull off the road in a safe location, reboot the app and then continue to rally. Take a time allowance if necessary. The app will simply resume where it left off. No data will be lost, but you must notice if the app has stopped. If you pass a control while the app is not running, you will not be timed at that control and you will be scored as a max (60 points). It is your responsibility to pay attention and make sure that the app continues to run on your smartphone.

Notes and suggestions:

- Read these General Instructions carefully and ask questions about anything that's not clear.
- Print them and bring them with you.
- Other stuff to bring: a clipboard, pens, a highlighter, a pad of paper, and your smartphone with the Richta GPS Checkpoint app preloaded.
- Be sure to zero your trip odometer wherever the Route Instructions tell you to. Failing to do this is a good way to get lost because you won't be able to make use of the Official Mileages in the Route Instructions. Many Route instructions have an Official Mileage and these will help you follow the course.
- The most common cause of getting lost is overlooking the correct place to turn. For example, if the next Route Instruction is Left on Smith, be very careful to not miss Smith Road
- It is very helpful to display the current page of Route Instructions in a way that both driver and navigator can read it. Experienced rallyists typically mount a clipboard to the dash at a midpoint between driver and navigator. The navigator posts the current page of Route Instructions on the clipboard and then both of you can read them. If you do mount a clipboard, be very careful to do so in a way that would not interfere with any air bags.
- We recommend that you cross off each Route Instruction as soon as you complete it. That helps you to keep track of which Route Instruction you should be seeking.
- Drive safely at all times. Don't let reading the Route Instructions or following the course distract you from driving safely.
- All rally cars are required to stay on time whenever a Route Instruction that contains a Checkpoint location is active. If a Checkpoint reference, sign or landmark, is missing that Checkpoint will still be counted as part of the rally scoring.

(End of addendum)