


Beginners Guide to TSD (Time Speed Distance) RoadRally


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Types of TSD Road Rallies

- Tour
 - Designed so you will not get lost
 - No tricks!!
 - Challenge is to stay on time
- Course
 - Need to use logic and observation to follow the route
 - You might get off course
 - Designed with "traps"
 - Challenge is twofold
 - Follow the course
 - Stay on time

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RoadRally Basics

- Need a driver and a navigator
- General Instructions
 - Usually distributed ahead of the event
 - Gives the basic rules for that particular rally
 - Be sure to read and understand them
 - Ask questions
- Route Instructions
 - Given the day of the event
- Road Rally Rules - only for non-regional events

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Equipment Used

- Clipboard
- Timing device
 - displays seconds or 1/100th of a minute
- Odometer
- Phone App(s)
- Pens/pencils/highlighters/sticky notes

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Basics of Staying on Time

- Average speed given in route instructions
- Average speed will likely change many times
 - CAST (Change Average Speed To)
- Rallymaster knows mathematically the time to travel the distance to the checkpoint
- Your score is determined by how close you are to "perfect" time

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How Do I Stay "On Time"

- Seat of the Pants - recommended for 1st rally
 - Travel a few mph above CAST to make up for starts/stops and curves
 - Pull over and count off any pauses in the route instructions
 - If you get delayed, count off the delay as soon as you stop, then pull over to make the delay an even ½ minute and take a time allowance
 - Adjust the "few mph" above based on how early/late you arrive at the control

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How Do I Stay "On Time"

- Calculations – not recommended for 1st rally
 - Calculate when to arrive at certain points
 - To do this we need to know how many minutes it should take us to get to a certain mileage and compare it to how long it actually took and then adjust our progress accordingly.

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Registering for the Event

- Oftentimes done online
- Choose your class
 - Stock (includes "Seat of the Pants")
 - Limited
 - Equipped
- Don't be afraid to ask questions


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Before the event

- Read and understand the General Instructions
- Ask questions
 - Should be in yes/no format
 - Ask at least week prior to event

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Sample General Instructions

Pittman County Tour Rally®

April 10, 2021®

Schedule®

Noon to 12:45pm Registration®

12:45pm Safety Meeting®

1:00pm = Car # Start Rally®

5:15pm = Car # End Rally at Chicago Plaza in Concordia®

General: This event is an SCCA Tour Rally counting towards the Indianapolis Region 2021 Rally Championship.®

Roads: The following roadway types do not exist.®

A. Alley (Unless named)®

B. Private drive (Note: Any road with a gate or mailbox at the end will be considered a private drive unless specifically directed to use.)®

C. Courts (CT) and Cul-de-sacs (C). Roads marked as No Outlet or Dead End (unless specifically directed to use.)®

Instructors: Give each numbered route instruction (NRI) in ascending order beginning with NRI 1. A " " (period) in a line of instruction makes the instruction multi-part. The instruction should be executed in the order given. Do NOT miss another instruction until the previous instruction is complete. ®


"

Track your travel time on each leg of the course to the closest second (1/60th of a minute)®

Course Following: All Numbered Route Instructions (NRI) will be executed in order. If there is no NRI for an intersection, then go Straight (S) Possible (SAP)®

Sign: Signs are a crucial component of any set of instructions. Question marks are used to indicate text quoted from a sign. Spelling and spacing of the sign must match that which is referenced. Punctuation, font, and

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Sample General Instructions

capitalization does not count. ®

"

Signs may be anywhere except those which would require a backward glance. Separate signs on a common support are separate signs. ®

"

Do not split or conjoin words or numbers. For instance, do not take HAM or HAT out of HAMILTON or 4 out of 45. A further example is do not conjoin NRI 51 into NRI 5. ®

Controls: This event will use both OPEN and OVIC controls. OVIC Controls will be identified in the route instructions. Enter your calculated arrival (IN) time on your current time slip (SCCA MARS). On a second time slip, enter your out time for the next leg. The out time is your truncated 90 time minus any hundredths of a minute plus exactly 2 minutes. Zero your odometer at the Control. OPEN controls will be marked by an orange control sign. (Example shown at start). Drive past the sign and pull over safely near the control car. ®

Turn in your score card for that leg and any previous OVIC legs and any time allowance requests. ® You will be given critique slips for the leg that you have just completed. Read the critique slip carefully! ® In addition to telling you the information about the previous leg, they will tell you how to find the out marker (which is where you will zero your odometer and start the next leg), and possibly other pertinent information about the next leg. ®

Open Controls will be opened from the time Car 0 would pass until the time the last car passes plus a 15 minute time allowance. ®

Time Allowances: A total of 15 minutes between time of day starts is allowed. ®


Time allowances must be in 30 second increments and not on the even-minute (50, 60, 90, 120, 150 seconds, etc.). ® There will be time of day starts in North Salem and Greencastle. ®

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Pause 30 seconds at each Covered Bridge.®

Landmarks: Landmarks may be referenced by partial name. The landmark OLD VAIL RD may be referenced as OLD, OLD VAIL, VAIL RD, OLD VAIL RD, but not OLD RD or OL. ®

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Sample General Instructions

Scoring: LOW SCORE WINS. ® You will be given 1 point for each second (1/60th of a minute) early or late to a check point up to a maximum of 60. ®

Ties will be broken by (1) (2) (3) (4) of the most turns, followed by the most ones, etc. ®

"

Glossary®

ACUTE LEFT: A left turn of greater than 90 degrees®

ACUTE RIGHT: A right turn of greater than 90 degrees®

AT: In the vicinity of or actions which direct a course of travel. When referencing a sign, it means the intersection that the sign defines or controls.®

AFTER: Fast, in the direction of travel, the reference object.®

BEAR: A turn in the direction indicated of more than 30, and less than 90 degrees®

BEFORE: In sight of (and plus) an opportunity prior to the referenced.®

COVERED BRIDGE: A structure that has a roof and walls to keep precipitation off the roadway, and which conveys the road that you are driving on over some obstruction.®

CROSSROAD: An intersection of exactly 4 roadways, where a road goes generally ahead and another goes to the left and another to the right.®

DIYC: Do It Yourself Control (Zero your odometer)®

NOT #: Instruction or Numbered Route Instruction (NRI.) ®

INTERSECTION: Any meeting of existing roadways at grade level from which the rally vehicle could proceed in more than one direction without making a U-turn.®


LANDMARK: A physical object, such as a roadway, traffic light or a building®

NRI: Numbered Route Instruction ®

SCCERAD: An intersection of exactly 3 roads where a road goes generally ahead and another goes to the left or the right, but not both. ®

T: An intersection of three roadways such that there is a roadway to your right and to your left and past which you can no longer proceed ahead upon the roadway on which you are traveling.®


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Day of the Event

- Registration
 - Arrive on time
- Safety Meeting
- Route Instructions
- Starting the Rally

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Sample Route Instructions

NRI	Mileage	Trip	Instruction	CAST	Other
61	0.00		Stop Ahead sign. Reset ODO. TCO restart from 100.00 at 13.30 + car number in minutes		
62	0.06		Left at STOP at T. (Bradley)	80	
63	1.63		Right at side road (Duffon) Free zone to next (NRI) mileage given at backward facing STOP sign on left	35	
64	2.55		Straight at STOP at crossroad (Roberts) (1)	Pause 12	

Mileage	NRI	Instruction
0.000	1	Right Turn Warning (odometer at 100.00 (reset to Black Box) Zero odometer at the green line (see photo). Left. Take 47 minutes to reach NRI 20.1
0.040	20	Right at Stop
0.100	30	Right at Traffic Light
0.160	40	Left on R1 (at Traffic Light)
0.260	50	Stop
0.360	60	Stop
0.460	70	Stop
1.140 (0.00)	200	End Day Check at "Safety Point". (5 min) up nearest road NRI. CAST 20.0
2.00	210	Right at Traffic Light
2.00	220	Left after "Cross" (1) (obstacle)
3.00	230	"No Obstacle" (1)
3.10	240	Pause 100 at Traffic Light
3.10	250	CAST 30 at "Speed Limit 40" (NRI)
3.20	260	Right at Traffic Light
3.30	270	Left at "CAST 30"
3.40	280	CAST 30 at "Speed Limit 30" (1)
3.50	290	Right at Stop (obstacle)
4.00	300	Right (over from "Recent Creek (obstacle) (1)
4.00	310	Left on "Y" (at the intersection) (1)
5.00	320	CAST 30 at "Speed Limit 40" (1)

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A Basic Rally

- Tire warm up/odometer check
- After that
 - Following the instructions
 - Checkpoints
 - Time Allowances – minute increments only on the ½ minute
 - Critique sheet
 - Start next leg
 - Control (time allowance, critique sheet)
 - Start next leg, etc

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COMMON DATA AND CALCULATIONS

EVENT _____
DATE _____

CAR # _____
START TIME _____ (To Form 2, Line 1, Cols. 2 & 7)
Your Odo End Mileage _____

$$\frac{\text{Correction Factor}}{\text{Official Odo Mileage}} = \frac{\text{Actual Odo Mileage}}{\text{Your Odo Start Mileage}}$$

$$\frac{\text{Any Official Mileage}}{\text{Correction Factor}} + \text{Your Odo Start Mileage} = \text{Your Actual Odo Mileage}$$

$$\frac{\text{Any CAST}}{\text{Correction Factor}} = \text{Your Actual Odo Speed}$$

$$\frac{60 \text{ Times Correction Factor}}{\text{Any CAST}} = \text{Minutes Per Your Mile}$$

$$\frac{30 \text{ Times Correction Factor}}{\text{Any CAST}} = \text{Minutes Per Your Half (0.5) Mile}$$

$$\frac{12 \text{ Times Correction Factor}}{\text{Any CAST}} = \text{Minutes Per Your Two Tenths (0.2) Mile}$$

INST.#	CAST	Your Speed	Minutes Per Your Mile	Minutes Per Your Half (0.5) Mile	Min Per Your Two Tenths (0.2) Mile

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Running a Leg

- Leave at the time given in the route instructions (or given to you by the control worker or GPS app)
- Stay on time
- Calculate any time allowances
- Stay at the appropriate CAST while crossing the timing line

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Control

- GPS Controls
 - Time Allowance must be entered into the app before you get to the timing point.
 - App will tell you how early/late you were
- Open Controls
 - Give Time Allowance slip to the Control worker before they hand you a critique sheet
 - You will be handed a critique sheet
- DIYC Controls
 - Calculate what time you should have arrived and use that as your IN time. If you need a Time Allowance, take it on the next leg.
 - You should always "zero" a DIYC Control.

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Car #
1

Leg #
6

Time In
Time Out
Difference
T. Allow.
Corrected
Official
Score

H : M. Hun

10 32 79

10 20 00

Car #
1

Leg #
7

Time In
Time Out
Difference
T. Allow.
Corrected
Official
Score

H : M. Hun

10 34 79

First: Note that the two part form provides a means of instantly providing the timing control with your "Out" time from the preceding control, along with any Time Allowance requested (no extra form to fill out and forget to turn in), and an easy means for you to do self scoring since you get one piece back. This will allow the sweep car to begin scoring while following the course and hasten the posting of results at the end.

At a DIYC, you do have to create a second form as shown above. Your new "Time Out" is exactly two minutes more than your "Time In" at the DIYC.

Always make sure that any form that you fill out, or receive, has YOUR Car # and the correct Leg Number!!

At an Open Control, the control crew will ask you to confirm your arrival time prior to entering it on the slip that you handed them (You may not contest any discrepancy less than 3 hundredths, and you may not contest with the control, other than to make sure that they are viewing the correct split on their time piece since all splits are generated via pneumatic hose.)

They will return the yellow copies of any slips that you handed them, along with a New two part form for the next leg. You were given an inventory of blank forms to use if you encounter a DIYC.

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Leg 1: Open
Next NRI: 18
Outmarker: "STOP" NRI 18
CAST: OM 6.867 6.916
Callback: 6
Special Instruction: Begin Free Zone

Not too complicated. NRI 13B was on left before SR 267 causing the routes to split. Rejoined on CR 825 and just follow the common route to the control. For beginning Course competitors, note that at 13B the main road was straight by "protection," and at 14B it was "Right at T". At the first "STOP" the MRD was "Straight As Possible" because both side roads were dead ends. You have seen all three MRD's in action!

	GTA		Tour				Course			
Q	Answer	NRI	Mileage	Speed	Time	NRI	Mileage	Speed	Time	
Q 1	McClelland	Out	0.000			0.000	Out	0.000	0.0000	
Q 2	Infinite Graphics	13A	2.919	30	5.8380	13B	2.640	30	5.2800	
Q 3	AAR	15	4.929	32	3.7688	14B	3.100	18	1.5333	
Q 4	15	17	6.823	40	2.3910	15	4.978	32	3.5213	
Q 5	None	Cont.	6.736	24	0.5325	17	6.672	40	2.3910	
Q 6	Hay & Straw / Feed & Seed									
Q 7	More					Cont.	6.785	24	0.5325	
					12.5303				13.2581	
					TRUE TIME				12.53	
									TRUE TIME	
									13.25	

20

86°

7:38

Demo Scamper - Car #20

Rally Clock

Score

14:50:27

0

GPS Accuracy

Time Allowance

5.0 meters

0:00

43.025663

-89.588555

TA-

TA+

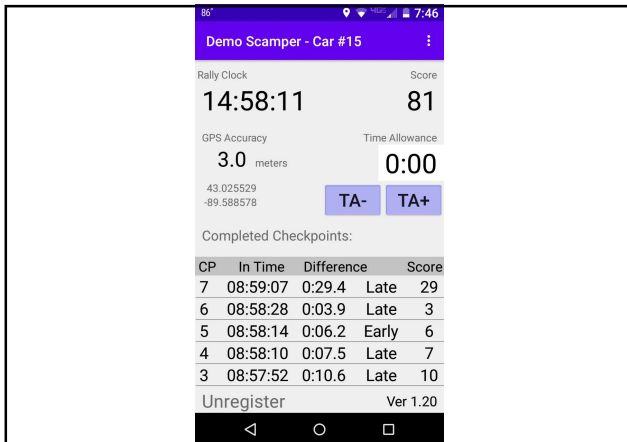
Completed Checkpoints:

CP	In Time	Difference	Score
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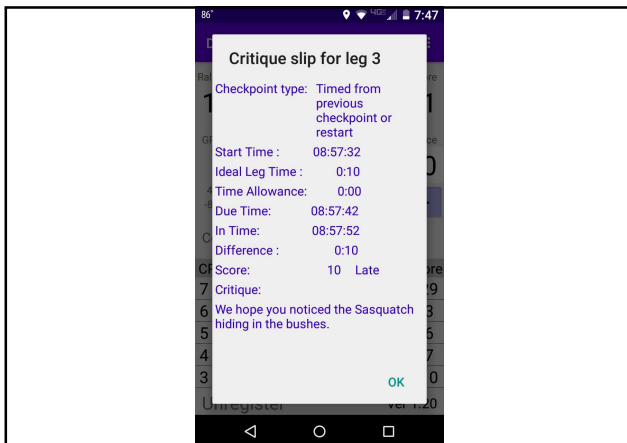
Unregister

Ver 1.20

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Repeat

- Go to the outmarker indicated on the critique sheet or in the route instructions.
- Leave at the correct time
- Stay on time
- Calculate any time allowances
- Stay at the appropriate CAST while crossing the timing line
- REPEAT

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Remember to have fun!!

- If too stressful, try simplifying.
- Maybe run Seat of Pants for a leg or two
- Take a Time Allowance and get ice cream
- Remember, it takes time to get the hang of it
- Go easy on yourself
 - This is new and takes time to learn
 - Set easily obtainable goals for yourself

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After the Event

- Talk to other rallyists
- Share stories
- Ask questions
- Look forward to the next event

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Additional information can be found at:

<https://www.scca.com/pages/road-rally>



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