Geargrinders
2011 Friday Nighter Series
Rallymaster Guide

If Friday Nighter Series events had fewer DNFs, rallier retention would improve and attendance would increase over time, growing the success of this series and potentially TSD road rally in the region.

The goal of this guide is to ensure all Friday Nighters:

- Are designed to be as safe as possible for all participants.

- Are free from errors and ambiguities that may unintentionally confuse or misdirect ralliers.

- Challenge experienced ralliers, while safeguarding novices.

- Are fun for all participants – including administrators.

The Rallymaster Liaison will guide and oversee development of Friday Nighter events by working with rallymasters throughout event development. The Geargrinders Chair delegates to the Rallymaster Liaison authority to make course-related decisions.

Goals

As the Rallymaster, your goal is to present an event in which contestants can compete safely and fairly.

- Ensure that every aspect of the event strictly adheres to the Road Rally Rules governing the event.

- Set average speeds at or below the posted speed limit.

- Every car should find the finish.

- Set approximately equal penalties for all traps in the rally. (Target: half a minute.)

- Scores should reflect the general experience level and equipment class of the contestants.

Schedule

Weeks before event:

6	Review course concept
4	Route instructions drafted and control locations selected, review of course
3	Course measured and calculated, route instructions and control slips completed
2	Final pre-event checkout (guinea pig)
1	Correct any route instruction errors identified at pre-check. Do a final drive-through, checking every sign, double check novice instruction appropriateness

The Rallymaster Liaison has an event ready which will be used if the schedule cannot be met (at Rallymaster Liaison's discretion).

Event tasks

The Geargrinders Chair has responsibility for the series and takes care of most tasks related to the events. Your responsibilities, as the Rallymaster, are to:

- Name your event. (You may be asked to provide artwork.)

- Contact the Geargrinders Chair or the "designated trophy person" WEEKS ahead of the event to arrange for trophies. Novice trophies are usually ordered for an entire season for the Friday Night Series. However, Rallymasters are responsible for awards for the remaining classes and other events outside of the Friday night series.

- Provide general information about your event for advance publicity. (Is there gravel, how much? Where does the event end?)

- Develop the route. Schedule reviews with the Rallymaster Liaison.

- Locate and arrange approval for control locations.

- Make finish location arrangements.

- Measure your course and calculate official times. (Target: >2 and <3 hours.)

- Write route instructions and control slips (Excel, Word).

- Find workers to run the guinea pig and staff the controls.

- Get the route instructions and control slips printed.

- Assemble and provide worker packets (control slips, control logs, directions).

- Make arrangements for cones, clocks, timing lines and signs.

- Put up and take down course markers if used.

- Conduct participants' meeting at start.

- Set up controls for event.

- Be first to arrive at the finish; answer contestants' questions.

- Award event trophies.
- Thank your workers.
- Write a post-event article for the newsletter.

Help is available for any of these tasks. Just ask.

Safety

Safety is the highest priority. Emphasize the importance of safety to all participants – workers and contestants. Safety is your primary concern when developing the event.

- Use signs that are clearly visible at rally speed, reflectorized or well lit for night rallies. Do not use a hard to see sign for course following or as the basis of a trap.
- Avoid residential areas.
- Avoid using or crossing busy highways.
- Try to use only good, relatively smooth roads. Advise of use of unpaved roads in event publicity. If unpaved sections of road are used, set the CAST slow enough to permit safe passage.
- Set the CAST with potential rally conditions in mind – icy bridges, roads covered with wet leaves, children and animals in the road.
- Include adequate pauses for signals, busy stops, and other likely delays.
- Use transits where traffic or road conditions make it difficult or dangerous for contestants to safely stay on time.
- Remind participants they can use Time Allowances rather than speeding to make up time.

Roads

Select roads, from a map or by driving around, which are:

- Rural.
- Lightly traveled during the event time frame.
- Free of delays, signals, parades, construction, ferries.
- Reasonably close to the start location.
- Reasonably well maintained.
- Near you (you will visit them many times).
- Fun, unique, special, scenic.
- Have good traps.
- Have good control locations.
- Lead to the ending location.

Control locations

Get permission to use private property. Select control locations that:

- Provide adequate roadside space for groups of cars to arrive.

- Provide adequate roadside space cars to queue at the out marker. (The out marker does not have to be within the control area. It can be "ahead" at a reference.)

- Are wide enough for two cars to pull off the roadway side by side.

- Are easy to work – good visibility of sign and oncoming traffic.

- Are not immediately after a turn unless you include a pause.

Event development

- Plan for appropriate event length (75 to 90 miles, 2 to 3 hours).

- Decide which geographic areas to use and an ending location. Confirm usability and availability of ending location. Make the reservation as soon as possible.

- Plan a general route linking the areas.

- Explore roads in the vicinity of the planned route until you find a course you like.

- Drive the course and write rudimentary instructions that include:
  - Mileage (from your car's odo).
    - for every instruction (NRIs and Notes).
    - for course breaks and re-joins.
    - for control signs and outcones.
  - Direction and reference (note direction and hard reference).
  - Speed limit.
  - Estimated CAST (two methods: guess or calculate).

- Drive the course again and start polishing the instructions. Check for:
  - Occurrence and spelling of references.
  - Reevaluate CAST.
  - See rally pre-check items.

- Drive the course again during conditions similar to rally night – same day of week, same time window. Recheck everything, especially corrections.

- Measure the course, from start to finish, all in one run, in one day. Calculate official leg times.

- Drive the course again, running with a rally computer, and verify measurements and calculations. Recheck everything, especially corrections.

Route Instructions

- Instructions should be neat and easy to read.

- Use a font, type size and line spacing that is readable in a moving car, at night, with limited lighting.

- Graphics should be unambiguous when compared to the intended sign.

- Use upper/lower case except for landmarks (4.4), signs (5.2), and glossary terms (6).

- Include columns for Official Mileage, Route Instruction Number, and the route instruction.

- Include ending location address and phone number.

- Don't renumber route instructions after the rally pre-check. (Really, just don't.)

- Don't change anything after the rally pre-check, except the changes agreed upon at the pre-check. (Seriously, this is a bad time to get creative.)

- Provide novice instructions. (Novice instructions may be provided at Rallymaster Liaison's discretion.) Novice instructions are intended to not give away traps, but instead assist in applying the main road determinate or watching for multiple reference points "looking ahead". See example in the section called "Sample Novice Instructions" on page 12.

Checkpoint slips

Include:

- Instructions to reach the out marker.

- Speed at the out marker.

- Next NRI.

- Maximum distance to the next checkpoint.

- Other official information needed to continue.

- For each prior leg:
  - o Official leg time.
  - o Official leg distance.
  - o Optional critique of prior leg.
  - o Optional prior leg calculations.

Control packets

Put together a control packet (manila envelopes or two gallon Ziploc bags work nicely) for each control location. Identify the location and the worker crew on the outside of the packet. Each packet should contain:

- Pens.
- Control log to record contestants' times.
- Control slips to distribute to contestants.
- Checkpoint Worker Guidelines.
- Directions (where do they go from here?).
- Copy of the route instructions.

Rally pre-check (aka Guinea Pig)

The rally pre-check will be held no later than the Friday before the event, and will ideally occur two weeks before the event date. Route instructions and checkpoint slips should be as intended for the real event, including novice instructions.

The rally pre-check will include a complete run through the course, with live checkpoints and timing if possible. (Run one leg at a time, with the Rallymaster playing checkpoint for each leg.)

The rally pre-check crews should look for the following:

- Are the instructions written in accordance with the Rally Rules for this event?
- Are the control locations safe and appropriate?
- Are the speeds reasonable?
- Are adequate pauses provided where necessary?
- Are all signs clearly visible and represented correctly?
- Are instructions clear and unambiguous?
- Are all traps in accordance with the Road Rally Rules?
- Are all planned off course route possibilities protected by something other than an off course marker?
- Are all unplanned but predictable off course routes protected?
- Are leg distance measurements and time calculations accurate? (At least one computer car should run the pre-check.)
- Is the course of the advertised mileage and duration?
- Will the contestants feel satisfied at the end of the event?

Day of event

- Arrive at the start prior to registration opening.
  - Bring route instructions, control packets, calculations, and course map.

- o Bring or collect rally equipment (signs, cones, clocks, timing lines).
- o Provide orientation for your workers, distribute control packets and equipment. Exchange cell phone numbers.
- o Answer questions from contestants and correct instructions if necessary.
- o Conduct the participants' meeting.
  - ▪ Make a plan ahead of time of what you want to cover.
  - ▪ Safety is the number one topic. Review Time Allowances.
  - ▪ If the event includes DIYCs, review the scorecard procedure.
  - ▪ Avoid giving information that could have been on the instructions.
  - ▪ Stress items that need emphasis. (HTS, rough road, etc.)
  - ▪ Answer questions and make corrections.
- o Anticipate leaving the start location after the first car.
- • Course setup
  - o Either meet control workers at a prearranged location or have them follow you from the start to the control location.
  - o Set up each control's checkpoint sign, timing line, control car, and outcone.
  - o Check that the checkpoint clock is set accurately and running properly. (It doesn't hurt to carry a spare clock or two when you're setting up checkpoints.)
  - o Make sure the workers have a control log and appropriate handout slips. Confirm clock operation and scorecard/control log procedures.
- • Pace car
  - o Bring emergency course markers, pen, mounting tape, stapler.
  - o Follow the route instructions ahead of the contestants, verifying that all references are present and that all rally roads are open.
  - o Put up emergency route markers if an error or missing reference is identified.
- • Checkpoints
  - o Stay open until closed by the sweep car. Close a checkpoint when all cars are accounted for. When a car is missing, leave the checkpoint open at least until the max late time (plus maximum time allowance) of the last car leaving the previous checkpoint. (Set your own guideline on this depending on conditions of your event. Try to balance the value of saving lost ralliers against the value of moving the event along for those already waiting at the finish.)
- • Sweep car
  - o Follow the route instructions after the last contestant, also verifying that all references are present and that all rally roads are still open.
  - o Remove emergency route markers.
  - o Close checkpoints.

Measurements and calculations

Precise measurements

- Measure the entire on course route all in one day, from beginning to end. Then go back and measure off course from break to rejoin. (If you measure the planned off course route, you'll be able to calc the time difference between on and off course.)

- Record a mileage for every route instruction.

- Use pavement marking paint to mark checkpoint in and out points if there is no specific sign or landmark.

- Record mileage measurements to nearest thousandth, if possible, otherwise to the nearest hundredth of a mile.

- Attach your measuring device's sender unit to the driver's side non-driven wheel to reduce wheel spin error.

Official Mileage

- In the route instructions, clearly display Official Mileage (OM) in a column to the left of the Numbered Route Instruction number.

OM	NRI	
0.00	1.	Begin odometer calibration TRANSIT at "STOP". You have 35 minutes to complete the next 13 NRIs.
0.21	2.	RIGHT at STOP.
0.30	3.	LEFT at SIGNAL.
0.42	4.	LEFT at SIGNAL.
2.10	5.	RIGHT at YIELD at SPRINGVILLE.
3.675/ 0.00	6.	End odometer calibration TRANSIT at "STOP". Then LEFT on KAISER.

- In the route instructions, clearly identify when Official Mileage reverts to zero. Official Mileage usually reverts to zero at the beginning of each leg.

OM	NRI	
/0.00	33.	DIYC at "WASHINGTON COUNTY". CAST 25. (Callback 10 miles)

Speed Changes

- Speed changes should occur at a specified sign or landmark, or at an official mileage. Speed changes referenced to a sign or landmark are to be executed at the near edge of the referenced sign or landmark.

- Speed changes referenced to an intersection (such as SIGNAL or T) are to be executed at the leading edge of the intersection.

<u>Accurate Calculations</u>

- Accurate TSD calculations are absolutely essential. Use a computer spreadsheet.

NRI	Begin mile	End mile	Distance	Speed	Factor	Interval Time	Cumulative Time
CP4 - 41	0.000	1.488	1.488	45	1.3333	1.984	1.984
41 - 42	1.488	3.010	1.522	33	1.8182	2.767	4.751
Pause LRI F						0.250	5.001
Pause NRI 41						0.250	5.251
Leg 5			3.010			5.251	

- Verify spreadsheet calculations with a calculator. Example:

Factor = 60 divided by Speed   60 / 45 mph = 1.3333

Interval time = Distance times Factor   1.488 x 1.3333 = 1.984

- Recheck pauses and speed changes against the final version of the route instructions.

- Run through the event using a rally computer. You should zero every leg.

Common mistakes

- Renumbering and missing a numbered reference.

- Inconsistent information between route instructions and checkpoint slips. Next NRI, CAST, references to instructions, etc.

- Unexecutable instructions. LEFT at T, R ONTO "MAIN", etc.

- Missing a required MBCU. S at outcone, LEFT at T, etc.

- Forgetting to cancel Notes (especially after final checkpoint).

- Not including the odometer calibration transit time and distance as part of leg one.

- Fixing errors with more errors.

- Missing pauses and/or speed changes in calculations.

- Missing speed changes, Notes, ONTOs, TOWARDs, etc., that carry through a checkpoint into the next leg.

- Misuse of capitalization. Stop is not the same as STOP or "STOP".

- Not getting the first checkpoint set up before contestants arrive.

- Posting an off course marker on a route that is on course later in the event.

Handshake agreements

Over the years, Geargrinders has accumulated a short list of unrecommended and highly discouraged, to the point of being disallowed, rally conditions.

- Do not introduce a vastly different format to the Friday Nighter Series. Stick to the lightly trapped TSD precedence established over the last several years, as reflected in the current Road Rally Rules. Avoid Supplemental Rules.

- Do not discover an entirely new interpretation of a rule. Imaginative creativity in interpretation of the rules does not usually work out too well.

- Do not take advantage of poorly defined areas in the rules. In the interest of simplicity and brevity, we know there are grey areas in the rules that are not quite black and white. Just don't go there.

- Do not exploit hard to read signs or extremely confusing intersections, where opinions may vary.

When things go wrong…

TSD Road Rally is a game of precision. Don't discount a contestant's claim that your measurements and calculations are incorrect; listen to their explanation. Have your original measurements and your calculations (preferably on your laptop) with you at the end of the event. Be prepared to review your calculations for accuracy.

If it is determined that measurements or calculations are in error, if possible, correct the official leg times and rescore the event prior to issuing awards. If it is not possible to determine correct official time, consider discarding the leg.

If called upon to recommend a scoring decision, be fair and be generous to the contestants. Send them home happy and wanting to run your next event.

Geargrinders Chair has final authority over all scoring decisions.

Resources

Control log forms, Road Rally Rules, Checkpoint Worker Guidelines, and other rallymaster resources (including this guide) can be found on the Yahoo Geargrinders Group in the Files section.

Additional resources may be found at www.tsdroadrally.com

2/3/11 rsd

SAMPLE CHECKPOINT INSTRUCTIONS:

Checkpoint 2 – The Phantom Strikes!
Time: 19.27
Distance: 10.901

To Continue:
   A. Proceed to the out marker at "NOBLITT". (Sign is on the left)
   B. Cancel NOTE TRICK.
   C. CAST 35.
   D. Next NRI: 35.
   E. Maximum mileage to the next checkpoint: 20.00

Leg 2 Critique:
NRI 26 was executed even though it followed the main road. Always execute an NRI with official mileage if it occurs at that mileage. The correct average CAST for NRI 26 was 27.76.

NRI	Begin mile	End mile	Distance	Speed	Factor	Interval Time	Cumulative Time
23 - 27	0	6.176	6.176	40	1.500	9.26	9.26
27 - 27	6.176	7.735	1.559	35	1.714	2.67	11.94
27 - 27B	7.735	9.318	1.583	23	2.609	4.13	16.07
27B - 28	9.318	10.901	1.583	35	1.714	2.71	18.78
Pause @ NRI 26						0.50	19.2799
Leg 2 Total			**10.901**			**19.27**	

Checkpoint 3 – Left in the Dark…
Time: 11.32
Distance: 6.799

Leg 3 Critique:
Did you remember to depart the DIYC at a CAST of 35?

But wait – there's more! NRI 30 was not executed at the first opportunity as the main road went left by SURFACE. NRI 30 was held until reaching the Stop at the crossroad where off course cars executed NRI 32. On course cars used NRI 30 to keep from being forced right on Dixon Mill by SURFACE. Off course cars skipped NRI 31 and used NOTE TRICK.

NRI	Begin mile	End mile	Distance	Speed	Factor	Interval Time	Cumulative Time
28 - 32	0	3.433	3.433	35	1.714	5.89	5.89
32 - 33	3.433	5.261	1.828	45	1.333	2.44	8.32
33 - 34	5.261	6.444	1.183	40	1.500	1.77	10.10
34 - CP3	6.444	6.799	0.355	33	1.818	0.65	10.74
Pause @ NRI 31						0.33	11.07
Pause @ NRI 32						0.25	11.3224
Leg 3 Total			**6.799**			**11.32**	

SAMPLE NOVICE INSTRUCTIONS:

The information in parenthesis is included only in the novice instruction set.

OM	NRI	
	32.	L ONTO CENTRAL POINT MBCU PAUSE .28 minute
	33.	L on MULINO MBCU PAUSE .25 OR CAST 50 at "HUGHES" (If you reach a road named MULINO before you see a sign reading "HUGHES", then do the first half of the OR. If you see "HUGHES" before a road named MULINO, speed up and look for NRI 34.)
	34	R at STOP PAUSE 1 MINUTE OR OBSERVE "PILOTS" (If you come to a STOP intersection before you see a sign reading "PILOTS" then execute the first half of the OR instruction. If you see "PILOTS" before coming to a STOP, do that instead)
	…	
	45	R on BUTTE
	46	DIYC at "STOP" then R (Beavercreek) CAST 45 (Enter your end time on the scorecard when you pull up to the stop sign at Beavercreek Rd. Add exactly 2 minutes for the start time of the next leg. Then in 2 minutes, turn right and go 45 MPH)
	47	OBSERVE "LARKIN"