



Organizing a Navigational Rally

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Introduction

The purpose of this document is to provide guidance on what elements are required for organizing a road rally (NAVEX), either at the club or regional level. The steps are similar for both, with the main differences being distance of the event and timing of deadlines for paperwork submission. This document is by no means an exhaustive reference, but a tool to assist those stepping into the role of a rallymaster.

Where to begin

For the novice rallymaster, we strongly recommend you find a mentor/advisor before beginning. This person will be involved in the local rally scene and preferably has organized a road rally and/or competed in rallies. Your mentor may help with the organization of your rally or solely serve as a resource you can contact when you have questions about what you are doing.

Support personnel

Running a rally is a lot of work and relies on a number of people to be successful. Don't try to do it by yourself! Have a few people beside yourself involved in the planning from the start and to run the event. Obviously, some of the duties can be combined or shared. Consider:

- Registrar: Even if pre-registration has been conducted, have someone at the start control to check paperwork, payment, handle one-day memberships, provide full club memberships if necessary, and ready to point crews in the right direction;
- Checkpoint crews: each staffed or open CP will need at least one person with a vehicle to get them to the CP location;
- Green crew. This is the team of a driver and navigator who will take your route instructions and timing details and pre-check the rally route, ensuring the route instructions and timings are accurate. This should be considered mandatory!
- Chief Steward. This is the person who will check and approve scoring and handle any protests or other competitive issues. They are normally appointed by the Atlantic Region Rally Representative;
- Scoring person or team: this person or team sits at the finish to either calculate the score for each crew as they arrive (in the case of a traditional rally with manual scoring), or monitor any electronic/GPS scoring screens to ensure things are progressing as planned and to deal with any discrepancies at the end of the event.

- CP crew wrangler: usually a member of the organizing team who gives out the instructions to the CP crews then will drive the route to check each team is in place before the competitors show up.
- Novice “instructor”: someone to review basic road rally information for the novice crews.
- Drivers meeting speaker: organizer welcomes competitors, does roll call, delivers all pertinent info regarding starting order and any other important info. The speaker shall introduce the officials as a first point of business.
- Starter of event: hands out instructions and records official start time on competitor time cards and CP sheet; usually one of the organizers.

The goal is to ensure all necessary positions are covered with the minimum number of people, so everyone else can compete!

Elements of a rally

Creating a rally can be roughly divided into five elements: Route planning, timing and scoring method, paperwork, personnel (mentioned above), and day of event activities. No element is exclusive from the others and all are important to the success of your event. Be sure to have awards for the top three places of each class for driver and co-driver.

Route planning

The key element. Without a route, there is no rally. This is the most time-consuming element. Route planning consists of the following:

- Selecting area/roads and designing a route using maps with a designated start and finish location. Refer to local sanctioning body for rules pertaining to the distance, type and use of roads.
- The route starts with an odometer check then several sections.
 - Drive the route gathering the following information:
 - Check roads for condition/use (if it rains, is a dirt road still passable by a small car?)
 - Gather data points using accurate odometer (this is best done by two people, one driving and one navigating/collecting data).
 - ▶ Data points are section start/end, road signs, intersections, speed limit signs, bridges etc.
 - ▶ Mark the kilometer each data point is at. The more points, the better.

- Note possible checkpoint locations (another data point).
- Review and adjust the route if necessary.
- Re-drive the adjusted route, recording new data points and confirming old ones.
- Using the data points, create a timing spreadsheet/[leg time calculator](#). This records the time taken to drive from each data point, with extra time given for the checkpoint locations.
- Write competitor directions for odometer check and each section once the route is firm. The instructions tell the competitors which way to drive at every intersection along with any other pertinent information along the road such as changes in speed, road surface, hazards etc. *The instructions will not contain all the data points you used in making your timing sheet.*
- There may be two sets of instructions, novice and experienced.
 - Odo check instructions are the same for both
 - Instructions may take various forms but always include the following:
 - ▶ Section name and total distance of section.
 - ▶ Distance, direction and speed for every instruction given¹
 - ▶ Maximum late time
 - ▶ End of section location
 - Section instructions may be in various forms such as but not limited to:
 - ▶ Plain text/language
 - ▶ Abbreviated language
 - ▶ Tulip diagrams
 - ▶ Cumulative mileage
 - ▶ Incremental mileage
 - ▶ Clockularity (analogue clock, enter on hour-hand, exit on minute-hand)**
 - ▶ Map; line diagram (Herringbone)²
 - ▶ Instructions out of order
 - ▶ Various combinations of the above³
 - Novice instructions should be kept simple, with experienced instructions open to the writer's imagination.
 - *Instructions must be accurate at all times.*

1 Speed is given in an instruction when it is changing from a previously prescribed speed, so it will not appear with each instruction.

2 Examples of the types of route instructions.

3 Whenever possible, it's useful to review route instructions from other rallies to see what type of instructions are employed and to gain experience with what can be used.

- As early as possible before the event, a green crew should drive the route to check the route and route instructions. Depending on the feedback, you may need to adjust the route/instructions.
- Checkpoint (CP) crew instructions and equipment:
 - List of instructions on how to get to each checkpoint, similar in form to the odo check. These may start off with a common set of instructions for all CP crews, then have separate instructions specific to each checkpoint crew. You may include directions to the finish point for each crew as well.
 - For each checkpoint, the number, time open/time closed (see below), car "0" time, mileage, GPS coordinates and name of street are given.
 - Timesheet(s) (on a clipboard)
 - If the CP is used more than once, ensure the crew has enough timesheets.
 - Checkpoint board
 - Clock with official time

Calculating CP Open and Close times

Especially when using traditional/staffed CPs, it is important to calculate accurate opening and closing times. CP crews need to know when to be ready for approaching competitors and when they can close down and return to the finish control. If a single crew is covering more than one CP location, this becomes even more critical to ensure they are at their next location in time for car 0. Open/close times can also be used for Richta CPs placed on a loop.

To calculate CP open and close times, follow this procedure:

- Basic rule: CPs open 15 minutes before car 0 and close 15 minutes after MAX LATE and passage time for all entered cars through the CP.
- MAX Late is normally 30 minutes for section 1 and 2 of a rally, 45 minutes for all subsequent sections, and 60 minutes at the finish control.
- For example: let's use a CP in section 3 on a rally where 15 cars have entered and are started at 2-minute intervals. We'll assume Car 0 is expected at this CP at **1902**.
Therefore:
 - ▶ The CP would open at 1847 (1902 minus 15 minutes);
 - ▶ 15 cars at 2 minute intervals results in the car 0 time plus 30 minutes (**1932** so far);
 - ▶ MAX Late for section 3 is 45 minutes, so add that to the time (**2017** so far);
 - ▶ and add the 15 minutes after MAX Late. The CP would therefore close at **2032**.

You can close a CP early if you know all cars still entered are through the CP or have been accounted for (DNFs, etc.).

Timing and Scoring

One of the first considerations for a rallymaster is the method of timing and scoring to be utilized on the rally. While rallies in the Atlantic region have been traditionally employed staffed CP crews and manual scoring, there has been a recent move towards electronic scoring using smartphone-based GPS timing and scoring apps such as the Richta Rally System. Each system has its own advantages and considerations.

“Traditional”/manual timing and scoring...

- provides a “live” CP crew for rally teams to interact at designated locations along the route;
- is normally timed to the top of a minute at CP locations;
- can be better for application on convoluted or complex rally routes when you want one CP crew to cover two or more CPs;
- requires at least one person with a vehicle (including directions on how to get to the CP location) for every CP. This is a critical consideration if you’re faced with a limited volunteer base;
- CPs are best situated on quiet roads with lots of room, as competitors are required to stop, leave their vehicle and check in with the CP crew;
- exact CP locations and/or average speeds will need to be adjusted (or pauses employed) to ensure a CP location at the top of a minute;
- means that as with any other method of timing and scoring, an experienced green crew will need to pre-check the route in advance to ensure accuracy.

Richta Rally system (there are other GPS-based systems, but we’ll concentrate on Richta for now)...

- uses a system of free apps for Rallymasters, Competitors and a Scoreboard;
- the developer needs to be contacted in advance to add the rally to the database;
- uses GPS to recognize the passage of CPs and instantly applies a score based on the ideal time;
- means CPs can be placed anywhere on the route, and there’s no limit to the number of CPs;
- provides leg timing to the second or tenth of second;
- provides the crew the ability to apply Time Allowances to compensate for traffic congestion or other temporary route abnormalities;
- no CP crews are necessary; reduces the number of volunteers required;

- theoretically can result in scores being available as soon as the last crew passes the final timed CP;
- requires a \$3.00 USD per crew levy for the developer (should be rolled into the registration fee);
- may not lend itself well to complex or convoluted rally routes where loops or reverse sections are utilized.

Each method has its advantages and disadvantages. Rallymasters need to consider their own situation, the proposed route, their volunteer numbers, and familiarity with each system before making a decision.

Documentation

As with most things in life, rally has its own bureaucratic paperwork that must be looked after in order to hold an event:

- Hosting club event insurance—provide the club treasurer with the type, date and location of the event.
- CARS non-speed rally permit—contact the ARMS Regional Rally Director/Atlantic CARS representative.
- Event notification letter(s) to the RCMP/local police force detachments located within the area the rally is being held.
- Supplemental regulations—written by the organizers.
- Competitor registration forms (online registration may be available – check with the organizing club.
- Speedwaiver QR code for those not already registered with this waiver system.
- Navigation rally regulations for club/regional/national level as per sanctioning body.*
- Competitor timecards.*
- Recovery point map.
- CP timesheets.*
- Car "0" scorecard & event result tally sheet.

* Documents/templates are available at <https://roadrallyatlantic.ca/docs-and-regs/>

For the level of event being held, there are specific deadlines to obtain/deliver the above paperwork. A good rule of thumb is to get it done earlier than later. Some items, like the rally permit, require a copy of the supplemental regulations to be provided before it will be issued. Refer to the sanctioning body regulations for the level of the event for specific deadlines.

Timeline

If it's your intention to organize/coordinate a road rally, notification should be made to the organizing club's executive as early as possible before the end of the club's current administrative/fiscal year. If a regional event, the event and tentative date(s) should be brought forward at the ARMS Annual General Meeting (AGM) calendar meeting. Route details, etc. are not required for this first step – the important thing is to get your event on the calendar for the next year and ensure it is included on the organizing club's insurance submissions.

Remember: it is easier to remove an event from the schedule than to add one after the schedule has been finalized!

6 Months from Event:

- Have an idea of where you want to run your event.
- Search for good start and finish locations. Having fuel near the start is an asset.
- Having a finish location with room inside is an asset. A meal setting is even better as it allows organizers to score, and deal with protest and appeals. Make reservations if possible.

4 Months from Event:

- Any roads from your initial assessment should be explored for condition.
- Particular attention should be paid to when your event is, and the associated weather probabilities.
- Example: If you have little first-hand knowledge of the rally area, you may not have an accurate idea of plowing turnaround times. Is the road plowed? Also: an event scheduled for October will have sunset far earlier than when you are laying it out in July.

3 Months from Event:

- You should have a decent plan of your route. Loops, multiple checkpoints, CP locations should be roughed in (if using staffed CPs, try to locate them on quiet roads, away from private residences, and with limited sight lines from approaching competitors). PCs, Google Maps, Plotaroute, and other apps have made this task easier.
- If you've chosen Richta as your timing and scoring method, contact the Richta developer at rbireta@gmail.com and ask him to add your event to the Richta database. This allows you to use the Rallymaster app to place CPs, adjust leg times, open registration – everything you'll need to use Richta on your rally.
- Start advertising your event. Social Media can be quite powerful.

60 days from Event:

- You should have your route, and have driven it recording all distances, signage, notes etc.
- Your Start and Finish locations should be selected and reservations made if required.
- Your timing calculations should be completed, and checked by a competent individual. Using a spreadsheet-based leg time calculator is a time-saver and a good idea.
- It is good practice to submit a letter of notice to relevant detachments of the RCMP.
- Your instructions should be taking form, and being constantly reviewed.
- Ideally, it would be good to have your Green Crew checking the route, with BOTH sets of instructions and timing calculations *as early as possible*. This can avoid problems later and give you sufficient time to correct any errors.
- Continue to monitor local online road reports (such as <https://511.NovaScotia.ca>) to see if there is new construction, bridge outages, road closures, etc.
- Continue advertising and promoting the event.

30 days from Event:

- Supplementary Regulations should be available and posted online (or where relevant) for all potential competitors.
- Arrange for CP boards through the organizing club's executive. Even if using Richta with no staffed CPs, a couple of CP boards are a good addition for start/finish control locations.
- If using Richta, consider implementing online pre-registration to save time and potential confusion on the day of the event. Work with the organizing club's treasurer to arrange entry fee payment and competitor contact information for passage of app/even passwords, etc.
- Contact the Regional Rally Director to ensure there will be a permit for the rally. Supplementary Regulations should be sent to the Regional Rally Director for approval and information.
- While most major things should be taken care of, things will slide, and many things will need to be updated. *Expect the unexpected!*

- If using CP Crews, your instructions for them should be finalized. Use or at least add GPS coordinates when possible. Plan for a member of the organizing team to run ahead of Car 0 time to confirm everyone is in place.
- If using Richta, ensure the “Event Open” checkbox is checked to allow crews to register on the Competitor app. Make no further changes to leg times or CP locations once the final green crew run is completed and everything checks out. Remove any pre-check offset (if applicable).
- Recruit and keep in contact with CP Crews. Have at least one backup Crew.
- Ensure you have clipboards and CP boards if the organizing club does not.

24 hrs before event:

- Confirm Start/Finish locations and arrange for access if necessary. Usually done in conjunction with route check.
- If using Richta, run a final Validity Report and address any errors or warnings;
- Drive the route, check road conditions and make notes for Drivers Meeting.
- Make a final go/no-go call based on weather, road conditions, etc. ***If a no-go, all registered crews and CP staff must be contacted and notices must be put on social media and club websites!***
- Get Sleep.

Event Day:

- Arrive 90 minutes before car 0 start time. Setup official notice board and clock displaying official time (if necessary). Post a topographical map of the rally area if available, as well as the notice to the local constabulary.
- Have separate volunteers for as many tasks as possible. You cannot do it all yourself. If early in the year, recommend a person from local clubs to take membership.
- Have someone organized to take aside CP crews and give them their packages, watches (previously set to official rally time) and CP boards.
- Have someone dedicated for registration. Ensure they have what they need (pens, registration forms, cash box, etc.) and someone to help latecomers with Richta registration (if required).

- Have a few printed copies of the Speedwaiver QR code for new crews to scan and complete, and have someone there to help with that process. ***(Speedwaivers are club-specific! For example, a BAC Speedwaiver won't cover someone on an ASCC event!)***
- Have someone to generally float, answer questions and to point people in the right direction.
- A 15 minute (or longer, depending on the complexity of the rally) rally school is a good idea for novice crews. Conduct the teams meeting well before car 0 time to allow for questions and final bathroom visits before the start.
- Your Supp Regs will contain a timeline of events in 15 minute increments. **STICK TO IT.** This sets the tone for the event.
- 15 minutes before car 0 be outside ready to dispatch cars from official start. If using Richta and a self-timed Out Marker, ensure the crews are ready to go and urge them along if necessary for them to make their assigned start time.
- At the finish location, ensure scoring is completed as quickly and accurately as possible. If traditional scoring is used, have a white board to write the crew names, CP results, and final standings. If Richta is used for timing/scoring, have a laptop (and a larger screen TV or monitor if possible) to display Richta-generated results.
- Thank all of the volunteers in the presence of the competitors and then thank the competitors. Promote the next event on the calendar. Distribute the awards. Thank the venue hosts/owners and leave behind some swag if possible. Follow this up with a written thank you shortly after the event.
- No later than two weeks after the end of the event, send the results and any necessary documentation to the Regional Rally Director, the organizing club and RRDG for website publication.

Good luck with your rally!

Resources

[Road Rally Development Group](#) – instructional documentation, time card templates, leg time calculators, information on the Richta Rally system, novice instructions and a lot more.

[Bluenose Autosport Club](#) - the BAC conducts navigational and performance rallies, and rallycross in Nova Scotia

[Atlantic Sports Car Club](#) - the ASCC conducts auto slalom, road racing, and navigational rallying in Nova Scotia

[Atlantic Region Motor Sports](#) - Atlantic Region Motor Sports Inc. – The Governing Body of Amateur Motor Sport Within Atlantic Canada

[Canadian Association of Rally Sport](#)

[Richta Rally System](#) – the website for the Richta Rally timing and scoring system. Links and information also exist on the RRDG and BAC websites!

[Speedwaiver](#) – all competitors, volunteers and staff on any ARMS motorsport event must complete the Speedwaiver for the organizing club!

[Plotaroute](#) – this is a route plotting web app where you can plot a potential rally and generate a map and rudimentary instructions sufficient for preliminary route surveys.

[Environment Canada Weather](#)

[Nova Scotia Road Reports \(511\)](#)

Thank you for reading and for taking interest in road rally organization. Please contact the RRDG via their website or their Facebook group with any questions!

