



presents

TSD Novice Workshop #1 - Chilliwack

April 24th, 2004

Chilliwack, BC

Road is 75% - 80% gravel

All Day Event (9:00am – 5:00pm approx)

This course is an introduction to the auto sport of TSD (Time-Speed-Distance) Rallying.

(The following is quoted from "The Road Rally Handbook" by Clint Goss)

TSD rallies have become popular in North America because of the many people who enjoy driving. Most TSD rallies have a Novice Class designed for first-time competitors. The other classes, which allow varying amounts of rally equipment, provide keen competition for experienced rallyists. Many top competitors today began in Novice Class with no more than a speedometer of questionable accuracy, a wristwatch, and a hazy understanding of rally basics.

For the driver, there is the opportunity to use a skill which most people spend years developing, but which few ever get to hone or test. But, unlike other motor sports, the skill does not involve outright car performance. More muscle does not necessarily help, so there are no artificial factors of performance to plague the rules of rallying. In fact, the rules, which define the rally classes, tend to be quite simple and provide a level playing field for competition.

Another thing, which sets TSD rallying apart from other sports, is its unique team aspect. In no other sport does a pair of people need to work so closely together, yet do fundamentally different things. Of course, when a team first starts rallying, both driver and navigator are simply concentrating on staying on course. Beginning teams do the timing by feel or some very simple calculations. But as a team gains experience, the driver and navigator begin to take on specific tasks.

As the team's coordination continues to improve, so do its results. After a while, the team graduates to more difficult events where the course challenges them to their limits, not because of outright speed, but because of the frequency and difficulty of instructions, traps, or density of speed changes and timing problems. It is these events that can give a team a deep sense of satisfaction.

For all competitors, a rally provides a day, weekend, or week get-away, driving a course that often makes use of the most scenic roads of the area, and is usually followed by a social event to round out the weekend. Some say that a road rally is merely an excuse for a party!

In a Time-Speed-Distance Rally, the Route Instructions, in addition to information to keep a team on course, also give assigned speeds. These speeds are always legal, and often are below the posted speed limit. A TSD rally is a *competition of precision driving - it is not a race!*

The goal of a rally team is twofold: to stay on the prescribed course and to drive at exactly the given speed. The perfect team would be *on course, on time* at any given point along the route. To score teams against this goal, checkpoints are sprinkled throughout the course at unspecified locations. Each team is timed by a crew at the checkpoint (also called the control) and their time is compared against a perfect time (computed from the assigned speeds and exact distances measured before the event). Each team receives a score based on its time for that portion, or leg, of the course. For each fraction of a minute early or late, the team is given points. The team with the lowest total score for all the legs wins. However, each leg is independent: time late or early on one leg cannot be "made up" on subsequent legs.

What you will need to bring for a TSD event:

Equipment Required:

- Calculator-battery powered, not solar
- Clipboard
- Pens or pencils
- Stop watch or digital watch
- Notepad or paper for notes
- Flashlight or night light, if running a night rally
- Highlighter

Equipment Recommended:

- Safety Triangle*
- First Aid Kit*
- Tow Rope*
- Blanket
- Snacks and boxed beverages (no 7-11 on route)
- Gravol or Motion Sickness Medicine (optional)
- Toilet Paper (trust me on this one!)
- BCAA Card (if you have one)
- Fire extinguisher rated 5BC or 10BC*
- Additional Headlights

* = *These items are required for most full TSD events*

Car preparation checklist for TSD event:

(in compliance with 2004 BC TSD Rally Regulations : section 4)

- Is car road worthy?
- Proper safety belts for all people in vehicle
- Operational horn
- Operational lights
- Operational windshield wipers
- Operational exhaust system
- Operational brakes
- Safe tires, including spare
- Windshield, extent of any damage allowed is at the discretion of the organizers
- Significant loose objects must be placed in trunk OR if kept in the passenger compartment, tied down adequately to hold in position during a possible rollover.
- No loose gas cans are allowed. Any added gas tanks must be vented to the outside.
- Roll bars and cages are encouraged, but only required in soft-top vehicles in Championship events.
- Additional lights on the front must be able to be turned off with one switch, leaving only the low beams operating.
- Auxiliary backup lights must have an interior warning light when on.
- No brake light kill switches are allowed.

Registration Information:

You should have the following ready for registration and inspection:

- Your driver's licence
- Vehicle registration
- Proof of insurance
- License plate number.
- Make, model, colour and year of your vehicle

Course Plan for the day:

Time	Title	Content
9:00am	Registration	Register and grab some breakfast!
9:30am	Introduction	Brief intro to club, the people and the course.
	Routebook	What is it and how to read it.
	Navigation Part:	Discussion about navigation and the role of the navigator.
	Driving Part	Discussion about driving a TSD.
	Controls	What are they?
	Tips and Tricks	Experienced Rallyist will be discussing about tips and tricks Things they have learned only thru trial and error – take notes!
	Coach Session	Driver and Navigator Coaching session (Core Q&A)
10:45	Car Tech / Inspct	Inspection of Car and Get Ready
11:30	On Road	On Road TSD – Part 1
1:30	Re-Group Gas Stop	Gas Stop at Tim Horton's – Grab a drink, use the washroom or just take a break.
2:00	On Road	On Road TSD – Part 2
4:00	Re-group	Back to Restaurant / Results / Awards / Socials Brief Intro to Pro Rally Scene in BC and Canada Wrap – Up / Dinner or Lunch!

The above is strictly a guideline. You will be receiving a detailed course sheet at registration.

OK – Now that we have some of the necessary information out of the way – the following will detail how to get to the registration point and what to expect once you arrive.

Some Important info – in case you get lost or otherwise:

Organizers Cell Numbers:



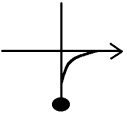


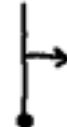
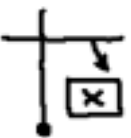
Keivn Holter Cell# 604.723. 0540

Ryan Matthews Cell# 604. 728. 4985

FRS Frequency will be 5.10

To get to registration – assuming coming from Vancouver:

(General rule for tulips – enter at dot and exit at arrow)

Tulip	Meaning	Instruction
	SA = Straight Ahead	- Get onto Hwy #1 – heading east - drive towards Chilliwack, BC - look for “EXIT 119A”
	BR = Bear Right	- at exit 119A - keep right, onto off ramp (get off the hwy)
	BR @ TS = Bear Right at Traffic Signal	- proceed on Vedder Road for approx 500m - NOTE: Sign Straight Ahead at Traffic Signal “Luckakuck Way” - bear right at the traffic signal onto Luckakuck Way
	SA @ TS	- Straight Ahead thru traffic signal for the mall intersection
	SA @ TS, SSA “Topaz” ! Stay in middle lane	- Straight Ahead thru Traffic Signal; watch for sign straight ahead “Topaz”
	R = Turn Right	- Turn right at driveway into White Spot Parking Lot; off Luckakuck Way into parking lot - White Spot is on Right Side
	<i>This tulip should be self-explanatory.</i>	- The “X” is the White Spot Building – entrance from front - PLEASE PARK CARS IN THE REAR OF BUILDING BY FENCE - White Spot Restaurant - 45373 Luckakuck Way , - Chilliwack, BC Tel: (604)858-0602



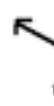

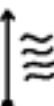


NOTE: PLEASE PARK CAR AT THE REAR OF THE RESTAURANT AS FAR BACK OF THE PARKING LOT BY THE FENCE – CAN PARK IN KFC PARKING LOT ALSO.





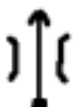
TIP: IF YOU GET THERE EARLY – TOP UP THE GAS – IT WILL SAVE YOU TIME LATER.

What to do when you get there?

- Come on into the restaurant – bring your clip board and pens
- We should be set up on the right side of the restaurant.
- Find Kevin or Ryan – they will confirm your registration and have you sign waivers and give you any additional course materials and stuff.
- Ask for Rally time and synchronize your stopwatch / digital watch to the second
- Find yourself a seat and order some breakfast.
- Introduce yourself around and meet some of the people
- We will begin the course at 9:30am SHARP

SOME ADDITIONAL CHARTS AND INFO:

Code	What is it?	Symbol
AL	Acute Left	
	Acute Right	
BL	Bear Left	
BR	Bear Right	
CAS	Car Average Speed	
Caution!	Be Careful	!
Caution!!	Really be careful	!!
Caution!!!	Slow down or else	!!!
EOS	End Of Stage	
EXP	Exposure	
	Keep Left	
KR	Keep Right	

Code	What is it?	Symbol
MBCU	May Be Considered Unnecessary	
RRX	Rail Road Crossing	
SA	Straight Ahead	
SC	Surface Change (to or from gravel)	
SOL	Sign On Left	
SOR	Sign On Right	
SSA	Sign Straight Ahead	
CG	Cattle guard	
	Bridge	
TS	Traffic Signal	

These are just some additional information (I wish someone would have explained to me when I started) that you might find useful. The course will cover this stuff but here's a quick note for you to read.

At a regional TSD rally event , here are sequences of events that may happen once you arrive:

1. When you arrive - You will register and confirm your entry. Sign the waiver.
2. Note any last minute changes or notes that the rally master may have posted.
3. Get the navigator to sync your stopwatch and/or digital watch to Rally Time.
4. Tech inspection may be done at this time – so Drivers be aware of the announcements.
5. Once you pass the tech – you will be given a form that is signed by the official and you will take this to the registrar and get assigned your car number.
6. You may or may not get the route book assigned to you at this time.
7. There may be a Drivers meeting where the rally master will verbally update you on the event.
8. Have the Navigator go thru the whole route book and scan for “key” points. Good time to squeeze in some calculations (this will be covered in detail at the course).
9. Navigator will determine your “out time” based on your car number and route book instructions.
10. Drivers – please do not bother the navigator, they are as excited and as wired as you. They are focusing on the calculations and trying to make sense of the instructions so do what ever they need to help them out because for the next 4-8 hours they are going to be in CONTROL!
11. Go to the bathroom!!!
12. Make sure car is topped up with fluids (gas, washer fluid, oil, etc)
13. Secure all loose items in the driving cockpit.
14. Make sure Navigator is settled in comfortably in the passenger seat (yes – treat them very well!!)
15. OK – now that the navigator has determined when to leave – navigator will instruct the driver on how to get to the starting point and “zero” your odometer when you get there.
16. The first section of the TSD rally is usually what they call the “ODO Check” section. The instructions will give you LOTS of time to complete this section. The purpose of this section is so you can calibrate your Odometer to the rally master’s Odometer readings. The formula is outlined as [Your Distance / Rally Distance = Odo Correction Factor] REMEMBER THIS NUMBER!!!!
17. Navigator’s will now apply this “odo correction factor” to all the distances in the route book and come up with the corrected odo reading for your car!
18. Now you will be ready for the first stage of the TSD.

Three golden rules to a successful TSD rally (highest to lowest in priority):

- 1) Stay on the road
- 2) Stay on the course
- 3) Stay on time

Things to keep in mind:

- Competitors receiving any sort of traffic violation will automatically be disqualified from the event
- Teamwork is important – drivers listen to the navigator – after all, they have the route instructions.
- Drivers – keep both hands on the wheel and your eyes on the road – read the terrain and surface conditions and adjust your driving attitude accordingly.
- Drivers – be nice to your navigator – they will feed you and hand you drinks, as you need them.
- You are an ambassador of the sport – if you run into locals – BE POLITE and BE COURTEOUS.
- If you run into local law enforcement – just explain you are on a recreational navigational rally – if they have any questions, they can contact the organizers or WCRA.
- Do not throw any pages of the route instruction away – inevitably – it will be the page you may need later (In afterthought - Do not throw any thing out the window – period.)
- If you get severely lost – do not worry about time – try to get back on course and continue to the next stage or cut straight back to base camp and report / call / leave message for rally master (meaning “check – in” so the organizer will not send out search party to look for you)
- Never assume you know where the organizer is taking you.
- MOST IMPORTANT: **HAVE FUN!!!!!!**

The following is reprinted from the WCRA website for your reading. Most of the following details will be covered at the course.

Rally Formulas & Calculations:

- Time (minutes) = Distance x 60 / Average Speed
- Odo Correction Factor = Your Distance / Rally Distance
- Rally speed (or distance) x Factor = Your speed (or distance)

Do your calculations based on rally time/speed/distance and use factor to correct your odo to determine your relative position. Example Instructions for Car 5 - Car 0 out at 9:05:00

Info	Time / Speed	Kms	Miles	Reference	Calculations		Sub-Total (decimal)	Total / hh:mm:ss
9:05:00
1	40	0.00	0.00	SA at Stop	.	.	0.00	9:10:00.0
2	45	1.61	1.00	L at TS	$(1.61-0) * 60 / 40 =$	2.415	2.415	9:12:24.9
3	60	3.25	2.02	R at Wood	$(3.25-1.61) * 60 / 45 =$	2.1866666	4.6016666	9:14:36.1
4	40	5.63	3.50	L at Spider	$(5.63-3.25) * 60 / 60 =$	2.38	6.9816666	9:16:58.9
.	.	7.22		(CP Location)	$(7.22-5.63) * 60 / 40 =$	2.385	9.3666666	9:19:22.0

1. Route Instructions

The TIME/SPEED column will have a time printed at the start of each Section. This is the Car 0 start time. **Your time is Car 0 plus your car #.**

2. Start / Finish of Sections:

During the layout phase of this rally, convenient locations were chosen to Zero the odometer. These don't necessarily have room for 10 cars. No checkpoint will be within 0.4 kilometers of the start of a TSD. Please don't block the road.

3. Time

The event is run as a perfect time rally, timed to the second. Your time is Car 0 time plus your car number. Car 0 time is set at the start of each section.

4. Scoring

Checkpoint locations are hidden. Your time is taken as you pass a checkpoint without stopping.

5. The Rally:

Tour of vehicles, spaced at one-minute intervals, following a measured and precise route. The rallyists will follow all applicable laws. A scoring process times the rallyists along the route, with points scored for deviation from the predicted time for their arrival at those points. Lowest accumulated points determine the winners.

6. Entry and Eligibility requirements

- a) Entrants must be prepared to present:
 - 1) Driver must have valid Driver's License.
 - 2) Proof of-Insurance.
 - 3) Registration certificate for vehicle.

- 4) Permission of vehicle owner if other than rally participant, in writing.
- b) Completion of Entry Form.
- c) Additional passengers are allowed.
- d) Signature of all participants on Liability Waiver Form. A separate form covers minors.

7. Safety Inspection and Vehicle Eligibility

- a) Vehicles must be road legal and licensed.
- b) All vehicles must have operating seat belts for each passenger and to be worn during the event.
- c) Each vehicle will be subject to inspection according to BC TSD Regulations.

8. Route Instructions

- a) The Route Instructions will contain an instruction number, time or speed, distance from start of section, Alpine, and reference for following the route. The distance has precedence when given for route following instructions.

Precedence of route - at intersections where the next instruction cannot be used.

Remain on the named or numbered road if directed 'onto' (and only by the word onto) it by name or number.

That is protected from entering traffic by STOP or YIELD signs.

That is of similar road surface (paved vs. unpaved).

That follows numbered or named highway.

Continues straight ahead or as nearly straight as possible.

- b) In the absence of a Route Instruction, the obvious main road should be followed. Usually, an instruction isn't needed for you to continue straight, or to follow the road you are on when it curves and another road bears off.

- c) Redundant instructions may be used to clarify the main road, or to provide references confirming you are on the correct route. Such instructions may be appended with "MBCU" (May Be Considered Unnecessary) or "REF" (Reference).

- d) SOL, SOR (Sign On Left, Right)- indicates a reference on a specific side of the rally road.

- e) HR, HL (HARD RIGHT, LEFT)- Used to warn you of tight turns.

- f) All rally roads are public, through roads unless otherwise noted in the Route Instructions. Dead End or Private roads are to be considered non-existent. Such roads may be indicated in the Alpine without noting such status as private or dead end. Exception: Usable roads will be specifically noted: "Ignore Dead End" or equivalent.

- g) The RI's may or may not note the road surface. i.e. paved vs. gravel.

- h) Definitions and abbreviations - see Section 14.

- i) Distances relate to 1) the action point, i.e. when you commence a turn, or 2) a reference where there is no action indicated. RI's will be a tenth (.10) kilometer apart, if possible.

9. Definitions of Sections

- a) Monte (MTE) or Transit (TRN): Rallyists may be early or late within the section, but must be at the finish at the correct time. No CP's are located in Monte or Transit sections. Allowed time will be based on legal speed limits, and reasonable speeds.

- b) TSD: Rallyists must average speeds as indicated in the Route Instructions, and checkpoints may be passed anywhere in the section.

- c) The Start Time for car 0 is printed at the start of each Section. The Start Time of each Section is the Finish time of the previous section, which may include extra time for stops and refreshment. This is also a "zero point" for mileages. The correct time for each rally car would be the CAR 0 time + car number

10. Checkpoints, Controls, and Timing

- a) Checkpoints may be visible or hidden. Rallyists will be timed at a predetermined point. Rallyists do not stop at checkpoints.
- b) All controls will open 10 minutes before the ideal arrival time of car #1, and close after the maximum scoreable late time for the last car
- c) Main Time Controls (MTCs) will be used – Rallyist who arrive early can declare ideal arrival time; late arrivals will be time penalized as per BC TSD Regulations.
- d) Time standard is WWV, adjusted to local hour.

11. Penalties and Scoring

- a) TSD Sections: 1 point per second early or late. With a Maximum of 300 points (5 minutes.) per checkpoint to a Maximum of 600 points (10 minutes) per Regularity section.
- b) DNF: Unsportsmanlike conduct, failure to control vehicle, violation of laws, harassment of Officials or the public, etc. will be grounds to exclude a vehicle from the event. The rallyist involved may or may not be so advised by a rally official.

12. Force Majeure

It is the intention of the Rallymaster that everyone should be at the finish at an appropriate time. If you are delayed beyond the max. time for a Section, please attempt to shortcut to regain your position in the rally. This will save us the suspense of wondering what happened. The Route Instructions were written with enough references to aid you in such shortcuts.

13. General

- a) Rallyists must assume that notifications of the event have been sent to all law enforcement officials in the areas we traverse.
- b) Failure to stop at an accident may result in disqualification. However, if you can't render aid, move on.
- c) The official rally measuring device was a Brantz International 1 (Plus+) , using ECM output pulses of a 2000 Subaru Outback Sport. Distances were recorded at or below rally speeds.
- d) Checkpoint placement will be such that most rallyists could zero each control; reasonable driving will allow rallyists to be averaging the correct speed at control locations (i.e. don't try to "average" 45 through 20 mph corner...) **don't overdrive the roads**. There is no "balking" penalty, but unsafe control of vehicle "will be noted for later action".

14. Abbreviations and Definitions

- a) REFERENCES
 1. Signs will be in capital letters and enclosed in quotes " ". Representation will be as accurate as possible. "BROADWAY AVE." "NO. C ST. CT. E." "PAGAN CHURCH"
 2. Clarifying signs will be in parenthesis (). Portions of sign may not be included. (BROADWAY) (C ST.) (CHURCH)
 3. Clarifying comments may be in parenthesis. Comments may be in lower case. (CAUTION ROCKS ON RIGHT) , (Green church on left)
 4. Objects will not be in quotes. i.e. BRIDGE, GREEN CHURCH, DAM. BROADWAY AV.
 5. Exceptions: MP (mileposts), STOP and YIELD signs will not be in quotes. STOP and YIELD signs control your movement, but may not control an intersection (RRX for instance).
- b) Tulips (Alpine Instructions): A diagram of an intersection of rally roads, with the dot as the entry point and an arrow as the exit point. Scale will vary. Private, Dead End and other non-rally roads may be included for accuracy. References and distances will relate to the first action point of the intersection.

West Coast Rally Association

WCRA is a member of RPM (Rally Pacific Motor Sports) which is the representing CARS (Canadian Association of Rallysport) in BC Region. CARS is the Canadian Authority for Rallying.

IRC (Island Rally Sport) is also a member of RPM.

WCRA 2004 Club Executive

Position	Name	Email Address
Club Address	West Coast Rally Association	wkra@rallybc.com
President	Ken Kwong	ken@rallybc.com
Vice-President	Ryan Matthews	ryan@rallybc.com
Treasurer	Chi Tsang	chi@rallybc.com
Secretary	Dennis Wende	dennis@rallybc.com
Membership	Betty Third	betty@rallybc.com
Novice Co-ordinator	Kevin Holter	Kevin@rallybc.com
CARS Rep	Paul Westwick	paul@rallybc.com

TSD Novice Rally Course – April 24th, 2004

Rally Masters: Kevin Holter & Ryan Matthews

Novice Instructor: John McLaren

Registration: Kevin Holter

Sweep Truck Ken Lee & Paul Crocker

Hosted @ Part One: White Spot Restaurant - 45373 Luckakuck Way ,Chilliwack, BC Tel: (604)858-0602
Part Two: Boston Pizza – 45305 Luckakuck Way ,Chilliwack, BC Tel: (604)858-3333