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## TSD Novice Rally Workshop #4 (Night Rally)

October 2, 2004

Chilliwack, BC

Road is 70% - 75% gravel

All evening (18:00h – 02:00h)

**This course is an introduction to the auto sport of TSD (Time-Speed-Distance) Rallying. During this workshop, we will review the fundamentals of navigation and it will also be an introduction to driving in the night.**

*(Some aimless ramblings from our president's experience about night rallies)*

Night TSD rally is a whole different beast when it comes to TSD rallying in general. During the night, the simple factor of little or no daylight can change how everything looks on the route. Never expect what you expect and always expect what you don't expect – lost you yet?

Let's start with the route book – there is always just enough information to keep you on-route, however, that's assuming you can see down the road in broad daylight. In the dark, instructions that require you to change direction of travel will almost always spring up at you while you are travelling at average speed and you will inevitably drive right past it. The concentration level required to drive at night is exponentially higher for this reason. Route precedence is a good rule to become familiar with. While rally masters try to include as much information as possible, you are, in the end, responsible for keeping accurate tracking of your distances covered or you will end up driving on a road leading to some farm or worst yet – a road that will lead you to the next town.

Navigators are also exponentially stressed at night. Working with a flashlight swinging from the sun visor or clamping a tiny 5W light to your clipboard only provides enough light to see a few instructions at a time. The peripheral vision is limited in the dark and the eyes are continually adjusting its focus while staring from glaring white paper to pitch dark windows. These are just the basics for creating an environment ideal for regurgitating your last meal all over the dash or towards a window that couldn't be opened in time because the damn switch is next to the gear shifter and not on the door where it should have been. Yes – a good navigator is one who has a strong stomach or a good stash of gravel handy. (Gravel has also been known to knock out navigators in the middle of the route, so only take what is recommended on the box).

The road – as yes, the road.... that is what rallying is really about, battling the road. In the dark, your lights (stock or auxiliary) will cast shadows everywhere. Potholes look like deep pits and crests look like hills. Blind corners are even blinder and exposures seem to have no bottom. In the night, humidity and temperature also play a key factor on the road conditions. Mist and fog seem to descend without warning and suddenly you can't even see more than 2 feet in front of you or worst, the edge of the road.

These factors are what make night rallies a true challenge and a pure adrenaline rush. Don't forget the gravel.

Have Fun and shiny side up!

Ken Kwong  
2004 WCRA President

## What you will need to bring for a TSD event: (Updated)

### Equipment Required:

- Calculator-battery powered, not solar
- Clipboard
- Pens or pencils
- Digital watch
- Notepad or paper for notes
- Flashlight or night light (if running a night rally)\*
- Highlighter
- Safety Triangle\*
- Basic First Aid Kit\*
- Fire extinguisher rated 5BC or 10BC\*
- \* *These items are optional if this is your first event*

### Equipment Recommended:

- 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)
- Full Size Spare Tire
- Additional Headlights
- Basic Tool Box
- Duct Tape
- Tow Rope
- Spare in a Can (Fix-A-Flat in a can)

## 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
18:00	Registration Opens	Registration desk will open at this time – please do not be late. Come early for Dinner Organizers will be there as of 17:00h for dinner.
18:30	Introduction	Brief intro to club, the people and the course.
	Re-cap	Quick re-cap and review of the Novice materials from the earlier Workshops
	Navigation	Calculations, formulas and Tables ( Tips and Tricks)
	Driving	Discussion about Driving in night conditions and what to expect.
	Q&A	Session to field questions.
20:00	Car Tech / Inspct	Inspection of Car and Get Ready
20:30	On Road	On Road TSD - First Car Out
00:30	End of Rally	Regroup at Boston Pizza – First Car In We will score you as fast as possible there will be a Q&A session.  We are using their facilities and there is a minimum \$5 charge per head – please support their business.
01:30	End of Workshop	

*The above is strictly a guideline. We will try to follow the above schedule as close as possible.*

**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:**

**Kevin Holter            Cell# 604.723.0540**  
**Ryan Matthews        Cell# 604.728.4985**

**FRS Frequency will be 3.28**

## To get to registration:

(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)
	KR = Keep Right	- proceed on Luckakuck Way for approx 500m - NOTE: keep eye out for driveway on right
	R = Turn Right	- Turn right at driveway; off the main road into parking lot - Vancity on Right

**NOTE: PLEASE PARK CAR AT THE NORTH END OF THE PARKING LOT**

**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 – she 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 18:00pm







## **IMPORTANT TIPS FOR OCTOBER 02 WORKSHOP:**




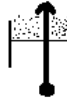


- ❑ Note traffic – please allocate enough time to travel Hwy 1
- ❑ If you get to registration early, top up your gas – it will save you time later.
- ❑ Due to the warm weather – check radiator fluid levels.
- ❑ Check oil level.
- ❑ Top up Washer Fluids.
- ❑ Registration is located in the Conference room – which is located inside the restaurant.
- ❑ Since the workshop starts at 18:00h, the restaurant will be serving dinner menu in the conference room. You may order from the servers and eat during the workshop. This meal is not covered in the workshop fee. We encourage you to arrive early and support the restaurant.

## **What to do when you get there?**

- Registration will open at 18:00h sharp in the Conference Room.
- Come in and bring your clip board and pens
- Go to the registration table in conference room
- Your registration will be confirmed, waivers signed and you will receive any additional course materials and stuff at that time
- Ask for Rally time and synchronize your digital watch to the second
- Find yourself a seat and settle in.
- Introduce yourself around and meet some of the people
- We will begin the workshop at 18:30h

**SOME ADDITIONAL CHARTS AND INFO:**

Code	What is it?	Symbol
AL	Acute Left	
AR	Acute Right	
BL	Bare Left	
BR	Bare Right	
CAS	Car Average Speed	
Caution!	Be Careful	<b>!</b>
Caution!!	Really be careful	<b>!!</b>
Caution!!!	Slow down or else	<b>!!!</b>
EOS	End Of Stage	
EXP	Exposure	
KL	Keep Left	

Code	What is it?	Symbol
KR	Keep Right	
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 full TSD regional 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 Driver's 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 Driver's 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 their rally.
- MOST IMPORTANT: **HAVE FUN!!!!!!**

**Some Formulas for your reference:**

<b>Subject</b>	<b>Formula</b>	<b>Example</b>
Odometer Correction Factor	$\frac{\text{Your Odo Distance}}{\text{Rally Odo Distance}} = \text{Correction Factor}$	$\frac{13.50 \text{ km}}{13.25 \text{ km}} = 1.0189$
Calculating Speed	$\frac{\text{Distance (km)} \times 60}{\text{Time (min)}} = \text{Speed (km/h)}$	$\frac{75 \text{ km} \times 60}{60 \text{ min}} = 75 \text{ km/h}$
Calculating Distance	$\frac{\text{Speed (km/h)} \times \text{Time (min)}}{60} = \text{Distance (km)}$	$\frac{75 \text{ km/h} \times 60 \text{ min}}{60} = 75 \text{ km}$
Calculating Time	$\frac{\text{Distance (km)} \times 60}{\text{Speed (km/h)}} = \text{Time (min)}$	$\frac{75 \text{ km} \times 60}{75 \text{ km/h}} = 60 \text{ min}$
Calculating Rate from Time and Distance	$\frac{\text{Time (min)}}{\text{Distance (km)}} = \text{Rate (min per km)}$	$\frac{60 \text{ min}}{75 \text{ km}} = 0.8 \text{ min / km}$
Calculating Rate from Speed	$\frac{60}{\text{Speed ( km/h)}} = \text{Rate (min per km)}$	$\frac{60}{75 \text{ km/h}} = 0.8 \text{ min / km}$
Calculating Time from Distance and Rate	$\text{Distance (km)} \times \text{Rate (min / km)} = \text{Time (min)}$	$75 \text{ km} \times 0.8 \text{ min/km} = 60 \text{ min}$
Adjusted Speed based on Odo Correction Factor	$\text{Rally Speed (km/h)} \times \text{factor}$ = Your corrected Speed	$75 \text{ km/h} \times 1.0189$ = 76.42 km/h
Adjusted Distance based on Odo Correction Factor	$\text{Rally Distance (km)} \times \text{factor}$ = your corrected Odo Reading	$75 \text{ km} \times 1.0189$ = 76.42 km



## Some Tables for your reference:

Minutes in most rallies are not divided into 60 seconds, but rather into 100 hundredths-of-a-minute or “cents”. A time period of 25 means 25/100 of a minute or 15 seconds.

Why do rallists time in decimal parts of a minute (cents) rather than seconds? Since there are more cents in a minute than seconds, timing in cents gives added precision to calculations and timing at checkpoints. Also, when the navigator is doing timing calculations, it is far easier to add and subtract minutes and cents than to keep carrying and borrowing 60s when doing math on minutes and seconds.

Here is a conversion chart for your reference.

Cents	Seconds	Cents	Seconds	Cents	Seconds	Cents	Seconds	Cents	Seconds	Cents	Seconds	Cents	Seconds	Cents	Seconds
1	0.60	16	9.60	31	18.60	46	27.60	61	36.60	76	45.60	91	54.60		
2	1.20	17	10.20	32	19.20	47	28.20	62	37.20	77	46.20	92	55.20		
3	1.80	18	10.80	33	19.80	48	28.80	63	37.80	78	46.80	93	55.80		
4	2.40	19	11.40	34	20.40	49	29.40	64	38.40	79	47.40	94	56.40		
5	3.00	20	12.00	35	21.00	50	30.00	65	39.00	80	48.00	95	57.00		
6	3.60	21	12.60	36	21.60	51	30.60	66	39.60	81	48.60	96	57.60		
7	4.20	22	13.20	37	22.20	52	31.20	67	40.20	82	49.20	97	58.20		
8	4.80	23	13.80	38	22.80	53	31.80	68	40.80	83	49.80	98	58.80		
9	5.40	24	14.40	39	23.40	54	32.40	69	41.40	84	50.40	99	59.40		
10	6.00	25	15.00	40	24.00	55	33.00	70	42.00	85	51.00	100	60.00		
11	6.60	26	15.60	41	24.60	56	33.60	71	42.60	86	51.60				
12	7.20	27	16.20	42	25.20	57	34.20	72	43.20	87	52.20				
13	7.80	28	16.80	43	25.80	58	34.80	73	43.80	88	52.80				
14	8.40	29	17.40	44	26.40	59	35.40	74	44.40	89	53.40				
15	9.00	30	18.00	45	27.00	60	36.00	75	45.00	90	54.00				

Second	Cents	Second	Cents	Second	Cents	Second	Cents
1	1.67	16	26.67	31	51.67	46	76.67
2	3.33	17	28.33	32	53.33	47	78.33
3	5.00	18	30.00	33	55.00	48	80.00
4	6.67	19	31.67	34	56.67	49	81.67
5	8.33	20	33.33	35	58.33	50	83.33
6	10.00	21	35.00	36	60.00	51	85.00
7	11.67	22	36.67	37	61.67	52	86.67
8	13.33	23	38.33	38	63.33	53	88.33
9	15.00	24	40.00	39	65.00	54	90.00
10	16.67	25	41.67	40	66.67	55	91.67
11	18.33	26	43.33	41	68.33	56	93.33
12	20.00	27	45.00	42	70.00	57	95.00
13	21.67	28	46.67	43	71.67	58	96.67
14	23.33	29	48.33	44	73.33	59	98.33
15	25.00	30	50.00	45	75.00	60	100.00

*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**

A. 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:**

A. 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**

A. The event is run as a perfect time rally, timed to the second (calculated to 100th of a second and rounded, and controls will be calculated to within 0.2 of the top of 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**

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

## 5. The Rally:

A. 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 determines 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 Inspections and Vehicle Eligibility

A. Vehicles must be road legal and licensed.

B. All vehicles must have operating seat belts for each passenger and it must be worn during the event.

C. Each vehicle will be subject to inspection according to the 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.***

1. *Remain on the named or numbered road if directed 'onto' (and only by the word onto) it by name or number.*
2. *That is protected from entering traffic by STOP or YIELD signs.*
3. *That is of similar road surface (paved vs unpaved).*
4. *That follows numbered or named highway.*
5. *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. HPR, HPL (HAIRPIN 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 maybe 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. Rallyists who arrive early must declare ideal arrival time, late arrivals will be time penalized as per the 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. Maximum 600 (10 minutes).

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

A. 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 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 Laser 3, using 4 sensor/pulses to trigger a magnetic proximity sensor on the main drive shaft of a 1999 Jeep Grand Cherokee Limited. 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. 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 2001 Club Executive

Position	Name	Email Address
Club Address	West Coast Rally Association	<a href="mailto:wkra@rallybc.com">wkra@rallybc.com</a>
President	Ken Kwong	<a href="mailto:ken@rallybc.com">ken@rallybc.com</a>
Vice-President	Ryan Matthews	<a href="mailto:ryan@rallybc.com">ryan@rallybc.com</a>
Member at Large	Peter Parsonage	<a href="mailto:peter@rallybc.com">peter@rallybc.com</a>
Treasurer	Chi Tsang	<a href="mailto:chi@rallybc.com">chi@rallybc.com</a>
Secretary	Dennis Wende	<a href="mailto:dennis@rallybc.com">dennis@rallybc.com</a>
Membership	Betty Third	<a href="mailto:betty@rallybc.com">betty@rallybc.com</a>
CARS Rep	Paul Westwick	<a href="mailto:paul@rallybc.com">paul@rallybc.com</a>

#### TSD Novice Rally Course – October 2nd, 2002

Rally Masters:	Kevin Holter	Ryan Matthews
Registration & Member Services:	Kevin Holter	
Instructors:	TBA	
Sweep Truck	TBA	