

These briefing notes do not cover use of grid references and some (devious event directors') tricks sometimes found in masters and apprentice level instructions. This briefing was primarily aimed at novice navigators.

# Forest Classic Rally

# Navigation Notes

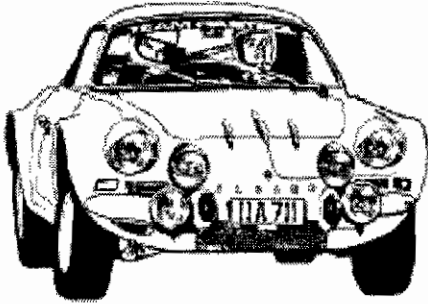
## for Beginners and Novices



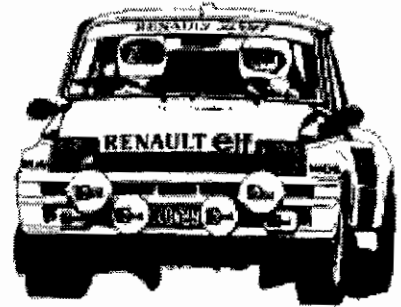
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The contents of this document were prepared and presented at a novice navigators' briefing held by Jeff and Peter Whitten on the eve of the 2007 Forest Classic which ran from Wangaratta on 28 and 29 April 2007

## NAVIGATION NOTES FOR THE FOREST CLASSIC RALLY



A guide for  
beginners and  
novices.



*Classic rallying should be fun – there are no sheep stations to be won, no works driver contracts to be had, nor huge pools of prizemoney. Classic rallying is all about taking your favourite car out of the shed and, together with a navigator or driver, spending time navigating and driving over a selection of great drivers' roads in the company of other like-minded crews.*

*While the authorities still allow this sort of activity to take place without too many restrictions, we may as well take advantage of the opportunity – there is nothing much more enjoyable than driving a classic car through valleys and over the mountains by day, while spending enjoyable nights experiencing the camaraderie that these sorts of events offer.*

*But it's not all plain sailing if this is the first time you've entered a classic rally or if you've only done one or two events before, so the following tips might be a little daunting. These notes are designed to give you a few basic tips on what to expect when you get your route instructions just prior to the start. Read these notes several times before the event until you're familiar with the event's concept and remember that different directors have different ways of presenting an event, so be open to new ideas, new tricks and new ways of putting pressure on navigators.*

*These notes are specifically designed for the Forest Classic Rally and some of the tips we've given may or may not apply to other events. This event does not use topographical maps so we have not covered things like reading grid references and the like. These can be covered at a later date.*

*OK, let's get started on what to expect from this event.*

### **SUPPLEMENTARY REGULATIONS:**

An event's Supplementary Regulations are one of the most important documents in an event. They describe almost everything about an event from the time that entries open until the scores are tallied at the finish. Although the Supp. Regs. seem like a long-winded document, you should take the time to read them and become familiar with them, and refer to them again when you are not sure of something. The Supp. Regs. detail important information such as the penalties applied in the event, the running details, vehicle eligibility, scrutiny, how the route instructions will be presented, the way controls operate, late time and (most importantly!) what awards will be presented. As an example, what penalty would be applied for missing a passage control? The Supplementary Regulations will tell you that. What happens if I lose my road card? Again, the Supp. Regs. are the place to turn to. Carry them with you in the car while you're competing.

## **FURTHER INSTRUCTIONS:**

These are issued around a week before the event starts and detail further information that the Supp. Regs. didn't cover or was unable to be included when the Supp. Regs. were issued (eg: the total distance of the event, the book-in and start location and times, distance between refuel break), and any items that the Supp. Regs. did not cover. The Further Instructions carry the same weight as the Supp. Regs. so these should also be carried in the car as well. A good navigator is one who reads, absorbs and remembers the important information in these documents as it can get you that extra edge over fellow competitors when the pressure is on.

You won't get far without knowing a little about navigation technique so let's get started on that.

## **ABBREVIATIONS:**

Your route instructions will require you to memorise a number of abbreviations (examples attached elsewhere). Most of these will be familiar to you (things like SO = straight on, TR = turn right etc.) but there are some that you may not be familiar with, such as FMR = follow main road or THL = turn hard left. Read through the list and take a copy of our examples with you on the event for the times that you need to refer to them.

## **COMPASS DIRECTIONS:**

Everyone's familiar with the standard compass bearings, North, South, East and West, but are you competent in deciding which is NNW or WNW? It's easy to confuse compass bearings in the heat of the moment so it's a good idea to carry a copy of the compass bearing diagram on your map board at all times.

Always pay particular attention to entry and departure directions as the director may try to bring you undone on this. It is usual to require competitors to enter a control or via from a particular direction (eg: from the East) which would require you to head in a westerly direction (from the East to the West) but it's not uncommon for this to be given to you as "to the West" which is the same thing but written a different way. Always read your instructions several times as it's too easy to read what you want to read and not what the instructions are telling you.

## **VRC's AND OBSERVATIONS:**

To verify that competitors take the route intended by the director, you will find three different types of "checks" that not only require you to record certain information but also have the added bonus of allowing you to verify that you are on the correct route. The three checks are Manned Passage Controls (checkpoints), VRC's (visual route checks) or Observations.

1. Manned Passage Controls are located anywhere along the route as a check to ensure everyone uses the right road. When you arrive at a MPC you are required to stop and have your road card initialled by the official on duty. Depending on whether you entered the MPC from the correct or incorrect direction, the official will mark your card either OK or WD (wrong direction.) Penalties apply for entering a MPC from the wrong direction or for not stopping at the MPC.

2. Visual Route Checks for this event consist of a white board approx 300mm square on which will appear a red letter "P" as well as a smaller letter of the alphabet in black. These boards can be found randomly around the course and will always be on the left hand side of the road in (usually) a conspicuous position. Competitors are

required to record the small black or blue letter (not the red P) in the correct box on their road card. Penalties apply for missing or failing to write the letter down.

3. Observations are used once again to ensure competitors take the right route, and consist of questions (eg: What is the name of the creek?) at specified distances along the route. In this event all visual route checks (boards) will be located on the left hand side of the road while observations (questions) will be on the left hand side or occasionally directly ahead (in the case of a 'T' junction.) Competitors are given a sheet of questions attached to their route instructions, the answers to which must be written in the correct sequence in the boxes on your road card. Missed or incorrect answers (including mis-spelt answers) will incur a penalty. It is a good idea for the navigator to give the driver the task of keeping an eye on the odometer so that the questions can be answered at the correct distance.

It is the competitors' responsibility to have all VRCs and observations circled and initialled by the official at the next Passage Control or Major Control. This will deter any collusion between competitors who may have missed the information and wish to obtain the correct answers from another competitor.

### **MAJOR CONTROLS:**

Major controls are identified by a white marker board with a red "M" on it. All competitors must stop at major controls and have their time of arrival and departure (as well as their direction of entry) recorded. As well as recording the above, major control officials have the power to penalize a competitor for dangerous entry or exit or for working on their car in the control area. The official can also refuse to let a competitor start the next section if that competitor's car has a faulty exhaust or is unroadworthy.

### **TIMING:**

In this event all sections are timed and penalties are applied for early or late arrival at a control (the penalties are outlined in the Supp. Regs.).

When booking into a major control, the book-in time corresponds to the exact minute at which the vehicle passes the control board.

A crew who is supposed to check into control at 11.58.00 may enter control at any time between 11.58.00 and 11.58.59 without penalty. The book-in time at control will constitute both the arrival time at the end of a section and the departure time for the following section unless otherwise instructed by the control official. All seconds will be ignored eg. Arrival at 11.58.15 will be noted as 11.58, as will be the time of departure, even if time is lost in control.

If you arrive at a major control before your due time, you should wait outside the "M" board until your correct time of book-in arrives or you are advised by the official to enter control. Remember, booking in early will be penalized, as will booking in late. Navigators are permitted to walk into control to check the time on the official's clock without penalty, but once the vehicle passes the control board, that will be recorded as the time of arrival.

Should you arrive at a major control after your due time (eg: late), you should drive straight into control slowly (particularly if there are other cars in the control area) and tell the official the time that you want. The official will note the time that you passed the "M" board and record it on his control card and your road card as well.

Note that you will be penalised one point per minute for booking into a control late or two points per minute booking in early.

**LATE TIME:**

Competitors are given a late time allowance of one hour per day on top of the total time allowed to cover the route. Late Time works like this: if a competitor is late arriving at control(s) because of car or navigation problems, those times lost over and above the allowed section time, will accumulate. Once the total of extra time taken to cover the route exceeds 60 minutes, then a competitor is classed as being a non-finisher. You can 'buy back' late time by booking into later controls early (before your due time at that control), but remember that you will be penalized two points per minute each time you book in early, however that may at least allow you to stay in the event.

Competitors start each day with one hour's late time, regardless of their late time penalties from the previous day.

**CUTTING AND RUNNING:**

In situations where competitors are about to exceed their late time limit and it seems likely that time will be lost on further sections, it is possible to "cut and run" to stay inside the late time. As an example, if the start control was at Melbourne, the finish control at Sydney and the via point at Adelaide, cutting and running would involve driving straight to Sydney rather than going via Adelaide. By doing this the possibility of losing further time covering the total distance would be eliminated. Note, though, that you would be penalized for missing the Adelaide via but you would remain within your late time and not be excluded from the event. Navigators should always keep a tally of late time lost and make a decision to cut and run (or not) before it gets too late to short cut (eg: on the last section of the day.)

**OUT OF BOUNDS:**

If you are given an out of bounds location in your route instructions, you are forbidden from passing through that point. If an out of bounds is specified and is on the shortest mapped route point-to-point, the next shortest mapped route that avoids the OOB is the route to take. Penalties apply for visiting an OOB.

**OPPOSING TRAFFIC:**

It is forbidden to use a section of road in opposing directions in the same division UNLESS you are advised otherwise in the route instructions. In that case you should always be aware that you may come across other rally cars. It is permissible to cross a rally route (eg: at a crossroads) provided that you are not driving against oncoming rally traffic.

**SHORTEST MAPPED ROUTE:**

The correct route in this event is one which uses the shortest mapped route from point to point (via to via). The only exception to this is if the instructions advise you to use a route that is not the shortest mapped route or if you are told that the route is the shortest mapped route overall. Shortest mapped route overall is a bit more complex. In this case the order that the vias are visited is not specified, so the navigator must first plot the finish control location, then all via locations to determine the shortest mapped route overall that visits all the vias. The only restriction imposed on shortest mapped route overall is that no piece of road may be used in opposing directions. The policing of both these examples is through the use of Manned Passage Controls, VRCs or observations.

## **ROUTE INSTRUCTIONS:**

Three types of route instructions are used in this event – fully route charted (Touring section competitors), fully navigational (Masters) or fully navigational with additional information given (Apprentices).

Touring competitors are only required to follow a simple route chart from the start to the finish of each section, with distances given cumulatively (eg: progressive from the start control) in both kilometres and miles.

The Masters category uses a mixture of navigation, route charts, herringbones, map traces and other forms of navigation, while the Apprentices use the same instructions as the Masters, together with hints or additional advice to enable them to complete the route.

The route for all three categories may or may not be the same, but controls, manned passage controls, VRCs and observations will be common to all three.

Route instructions will be presented in a form that, at the top of the page, lists the location of the next major control, the required direction of entry to that control, then the vias that are to be visited in order to reach that control, and the direction of entry to the vias. Also at the top of the route instructions will appear the overall section length and the time allowed to complete it. As mentioned earlier, a list of observations are attached at the rear of the instructions, with answers required at specified distances. Leaving the start control (for instance), you will pass through all the vias (1, 2, 3, 4 etc.) from the direction specified until you have gone through the final via point, at which time you then proceed to control 1, again entering that from the specified direction. The same method is applied for all following sections.

## **ROUTE CHARTS:**

As mentioned, the instructions for the Touring competitors will describe the entire route in kilometres and miles and advise competitors the direction to proceed (eg: turn right, straight on etc.) If you happen to take a wrong turn it is important to adjust your odometer to the correct distance or do some mental calculations so that the following instructions come up at the right distance. This is particularly important where you are looking for an observation question at a specific distance. This is where both navigator and driver share the workload, the navigator ensuring the calls come up at the right distance and the driver looking out for visual route checks or observation questions.

## **WD's:**

Wrong directions can be very costly. There is only one correct way to enter a major control or a passage control, and that is from the direction given in the instructions or via the route chart. You should be aware that the control area extends a distance of 50 metres in all directions from the control location or the location of the control marker (M board). Once you are within that area you are deemed to be 'in control' and will be penalized if you enter from the wrong direction.

## **AVERAGE SPEED SECTIONS:**

In rallying there are three commonly used types of average speed sections - Overall Average Speed sections, Maintained Average Speed sections, and Maximum Permitted Maintained Average Speed sections.

In this event you will only come across an Overall Average Speed section, the simplest form of average speed sections where timing is only checked at major controls and where passage controls are only used to check compliance with the route.

In some instances in this event, instead of being given a time to complete the section, you will be given an average speed for the section, so instead of being advised, for example, that the section length is 40 kilometres and has to be covered in 32 minutes, you will still be given the section length but be told you are required to cover the section at an overall average speed of 75 kmh (which equates to 32 minutes.) It's just a simple bit of mathematics using the average speed/time/distance scales attached to these notes. The one big difference when booking into a major control on an Overall Average Speed section is that you must "enter control on sight" - in other words you may not stop outside the control area if you are early, but must drive straight in. This is to discourage competitors driving flat out during the section - the aim is to maintain a speed as close as possible to the average speed given. Once you "see" the major control or the control official sees you, you may slow down but not stop outside the control area. Fortunately on an average speed section, you may enter control one minute late or one minute early without penalty.

### **MAPS & MAPPING:**

Regardless of the category you are entering, you will be provided with maps that cover the route. Look after your maps carefully. If you mark them with a biro or a highlighter that can't be erased, you might have difficulty in plotting a later point if the route returns to that area again.

Always use a pencil to mark control and via locations as well as directional arrows as this will allow you to rub them out if you make a mistake or wish to plot another route.

Take note of the legend on the map – it will describe all the important features including sealed and unsealed roads, road markers and so on.

The maps provided have icons that show distances between certain points/intersections/road junctions. The large blue ones show the cumulative distances between points while the smaller black ones show intermediate distances. Note that for the purpose of the event all mapped distances are taken to be correct, however in practice they may be either longer or shorter than shown (eg: a road shown as being 8 kilometres in length may actually be 8.20km or 7.95km long.)

All roads used in this event are sealed unless otherwise advised in the route instructions. If you are tempted to use an unsealed road that is not nominated in the instructions, then you are on the wrong road. There may be some roads on the correct route that are shown on the map as being unsealed. If this is the case, you will be advised that "the road shown as unsealed is now sealed".

You should note the difference between "towns" and "localities". A town is usually obvious on the map but a locality will signify a much smaller area or town. Your route instructions will describe these as a town or a locality.

It is a good idea to get into the habit of scaling distances on the map so that you know where you are at all times. As an example, if you are driving along a piece of road 20 kilometres long, it's helpful to scale the distance to the next turn from a known point such as a river, a mapped road junction or another known point. You can copy the map scale onto a small piece of paper or use a metric ruler. A pair of double-pointed metal dividers are even better as you can adjust them to the distance required and pivot them on one point to find the spot you need to get to.

Map traces are just that – a trace of the map being used. Map traces are used in place of more specific route instructions and may cover a short section of roads or a much longer route. You are usually given either a start or finish point and by laying the trace over the map in the correct orientation, you will see the route that the director wants you to follow. Note that the trace may be given in the instructions upside down, back to front or turned around. You have to work that out!

Herringbones (or stick charts or strip charts) often confuse beginners (and experts, too!) but once mastered are relatively easy to work out. Remember that the straight backbone of a herringbone represents the road that you take, the side 'bones' are the roads you don't want. It's as if the road that you're taking is a piece of string and is pulled straight – all the other roads poke off onto the side. A heavy dot usually indicates the starting point of the herringbone (but not always). To work a herringbone out you will need to know whether the director is calling up all roads that you come to or just those that are sealed. This event will show sealed roads only. An example of a herringbone is shown elsewhere. A passage control, a VRC or an observation will be located along the route to check a competitor's compliance with the route.

### **SCORING:**

The only way to find a winner in an event like this is to apply penalties for breaches of the rules – you will find these penalties listed in the Supp. Regs. for the event. Basically, you will lose points for arriving at control early or late, exceeding your late time, missing a passage control, entering a control from an incorrect direction, missing or failing to record a VRC or an observation, as well as any other infringements imposed. The crew with the least loss of points is then declared the winner. If you're serious about doing well, take care in ensuring that you record everything that's required of you at a given point. Don't be tempted to drive flat out then have to double back to pick up an observation that you missed because you were going too fast or weren't observant enough. Not only will this be frustrating for a driver, doubling back will also throw your odometer out, cost you time and upset the relations between driver and navigator. Slow(ish) and steady is a far better method. Read your instructions carefully – not everything is always as it seems!

### **BOOKING INTO CONTROL:**

It will be a little daunting when you book into your first major control, but the method is really quite straightforward. The two most important aspects of booking into control are ensuring you enter the control area from the correct direction (as advised in the route instructions or by the route chart), and ensuring that you arrive there in the specified time. Get these wrong and you will lose points, and that's not what you want.

Firstly, always ensure that you check your watch or timepiece with the official clock at the start of the event so that your watch will be the same as the official's clocks. Even a minute's difference could make the difference between you winning or losing the event.

As you arrive in sight of the control, check your due time of arrival. If you happen to be early, wait outside the "M" board until your due time, then drive slowly in to the table. If you're late, you should drive straight in to control if there are no other cars in front of you. If there are cars in front of you, simply tag onto the end of the queue - the control official will have noted your time of arrival and written it on his control card. When you get to control, the control official will take your road card and note on it your time of arrival and the direction from which you entered (OK or WD). In this event the "in" time



will be the same as the "out" time so you should leave as soon as the official hands your road card back to you. If there is a long queue of cars ready to leave control you may be held an additional minute for each car ahead of you but you will still be given the specified amount of time to cover the following section.

Don't panic if things are busy at control - the official will be under a great deal more pressure than you and will often be trying to deal with more than one car at a time. If you find a timing error on your card when it is handed back to you, bring it to the official's attention and ask him to correct it. Once you leave the control boundaries may be too late.

And remember - be nice to the control officials. They are out on the event in a voluntary capacity at their own expense just so that you can have a bit of fun in your classic car. Just because you might have made the mother of all navigational errors doesn't mean that you should take your displeasure out on the official. We want them, just as much as you, to come back again next year.

### **STAYING IN TOUCH:**

Even in the best of regulated circles there may come a time when your car will break down and leave you stranded, either temporarily or permanently. This is bad enough if you break down on the correct route, however it is considerably worse if you are off the correct route and nobody knows where you are. If this happens to you, it will help the smooth running of the event if you contact the Clerk of Course or his assistant, letting them know where you are and what the problem is so that control officials know not to wait around for hours on end. The same thing applies to crews who might have decided to "throw in the towel" and go straight back to the finish - please take the time to let the Clerk of Course know by mobile phone so that he can start closing controls down. It's no fun for control officials having to wait by the side of the road in the vain hope that you might eventually arrive. A little thoughtfulness on your behalf will go a long way towards the smooth running of any event - all it takes is a phone call.

### **WHAT TO TAKE:**

Equipment that you should take with you on an event should include a sturdy map board which is crushable in an accident, a small hand or car-mounted compass, a reliable watch or stopwatch, 2B pencils, pencil sharpener rubber, pair of metal dividers (with points) a magnifier, torch, note pad, packet of Post It notes, bulldog clips, average speed tables, calculator, metric ruler, Rally romer, bag of chewy sweets, headache tablets(!) etc. etc. Oh, and a sense of humour.

And one final point – if you don't understand something in these notes – ask! There are plenty of people, including the Clerk of Course, who will be more than willing to answer your queries. Again, please be aware that these notes apply specifically to the Forest Classic Rally although much of what is contained in these pages will apply to other events as well and is generally-accepted navigation practice.

Good luck and good rallying.

Jeff Whitten  
RallySport Promotions 2007

# FOREST CLASSIC RALLY

## ABBREVIATIONS

SO	Straight on	TR	Turn Right
FMR	Follow main road	TL	Turn Left
RJ	Road Junction	BR	Bear Right
MRJ	Mapped road junction	BL	Bear Left
UMRJ	Unmapped road junction	KR	Keep Right
RX	Railway Crossing	KL	Keep Left
GR	Grid Reference	THR	Turn Hard Right
SP	Sign post	THL	Turn Hard Left
OOB	Out of Bounds	TVHR	Turn Very Hard Right
WWGB	Wrong way, go back.	TVHL	Turn Very Hard Left

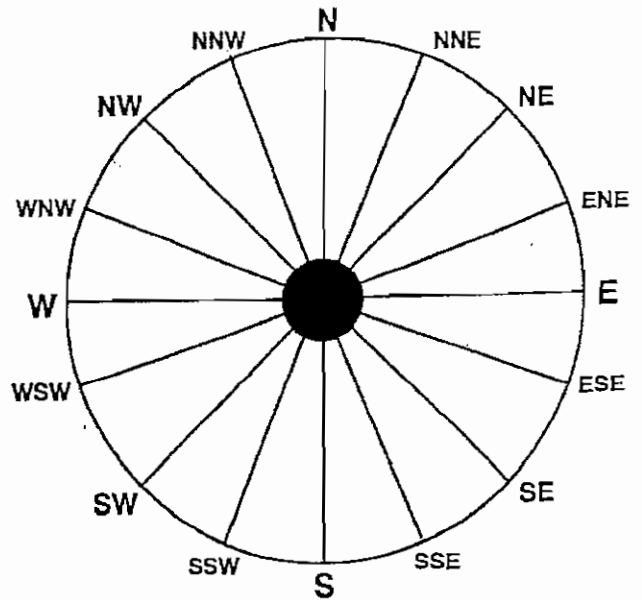
**CALCULATING AVERAGE SPEED**

$$\text{Distance} = \frac{\text{Kmh} \times \text{Time}}{60}$$

$$\text{Time} = \frac{\text{Distance} \times 60}{\text{Kmh}}$$

$$\text{Kmh} = \frac{\text{Distance} \times 60}{\text{Time}}$$

## COMPASS POINTS



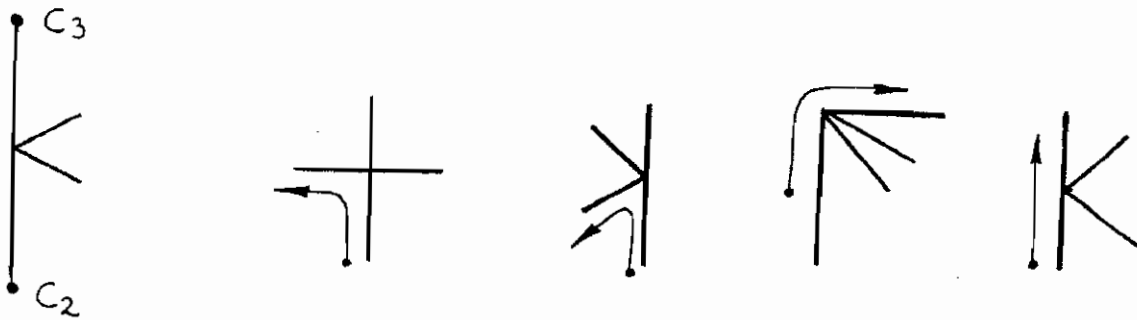
Example of Road Book

Cum	Inter	Tulip	Instruction	Rev Cum
1.33	0.33		TR, then 50m RGR	26.60
2.10	0.77		THR	25.83
2.70	0.60		CAUTION !! RGL, Concrete post Inside corner	25.23

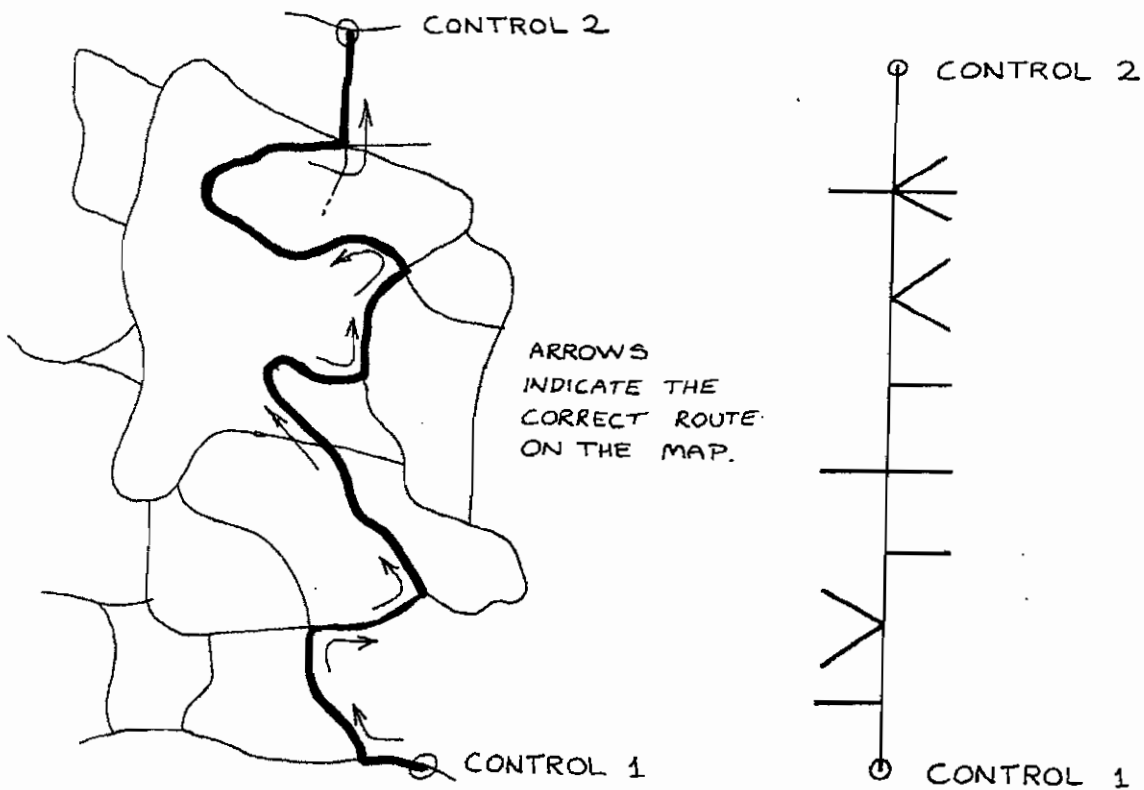
An example of a Tulip instruction. Note that the direction of entry is always from the 'bulb' on the bottom, and that the tulip describes the angle or severity of the change of direction. Always check that the tulips are shown in their correct sequence (in numerical order). It is usual that a distance is given beside the tulip but if a director is using mapped roads only, distances are not always provided.



An example of a typical map trace. Note that this one doesn't have a start point indicated so it becomes more difficult to find where to begin and where it finishes.

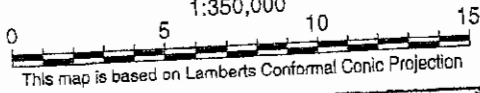


This simple herringbone shown on the left indicates that you are to leave (don't use) two roads on your right. The examples given show how this has four different permutations.



A good example of how the herringbone on the right relates to the map on the left. In this instance all roads are recognised. Some directors call up all roads, including unmapped roads, while others only call up sealed roads. Route instructions will advise you of this.

SCALE OF KILOMETRES  
1:350,000

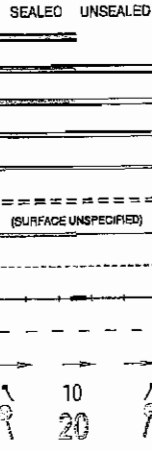


This map is based on Lamberts Conformal Conic Projection



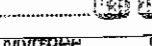
**ROAD CLASSIFICATION**

- Freeway
- Through Route
- Main or Connecting Rd
- Minor Connecting Rd
- Other Roads (Regional Map)
- Tracks
- Streets (Town Plans)
- Walking Tracks
- Railway Line
- Transmission Line
- One Way Arrows
- Distances
- Cumulative Distances
- Rest Area
- Wayside Stop



**ROUTE MARKING**

- National Highway



# QUESTIONS

## Saturday Afternoon

Answers to questions must be written in the spaces provided on the back of your road card. You must ensure that you have the answers signed by the control official at the end of the respective section. Failure to do so will cost you 30 points penalty per question.

### SECTION 5:

Miles      km

0.40	0.65	Tangambalanga is an Aboriginal word meaning white clawed what?
3.80	6.11	When was the Landcare Group formed?
13.30	21.44	What Shire welcomes us?
27.30	43.93	Name the creek.
48.00	77.25	Name the creek.

### SECTION 6:

4.80	7.73	How far is it to Mt. Granya Fire Tower?
8.85	14.22	Name the lane.
22.30	35.95	What lifestyle does Talgarno offer?

### SECTION 7:

7.65	12.34	Bethanga - the town that what?
20.30	32.66	Church what?
21.95	35.35	Name the store.
38.60	62.20	What important service does the Staghorn Flat store offer?
32.50	52.29	How far to Mt. Beauty?
43.00	69.27	Allans Flat Memorial what?
45.90	73.90	How far is it to Creek Haven?
49.20	79.25	Name the cinema.

### SECTION 8:

4.35	7.02	Penny what?
12.40	20.00	How far is it to Everton via White Post Road?
13.70	22.05	What color is the old school?
18.70	30.12	Milawa 'what' region?
21.80	35.12	How far to Milawa at this point?
30.10	48.45	Name the caravan park

*Sample*



# FOREST CLASSIC RALLY ROAD CARD



PASSAGE CONTROLS, INFORMATION BOARDS & RE-DIRECTIONS

P1 BS. OK	P2 Wiley OK	P3 Nook OK			
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ANSWERS TO QUESTIONS (to be written in correct sequence)

1	BROWN CREEK	13	25
2	RMB 6720	14	26
3		15	27
4		16	28
5		17	29
6		18	30
7		19	31
8		20	32
9		21	33
10		22	34
11		23	35
12		24	36

	+		+		=	
PASSAGE/INFO		QUESTIONS		SUB EVENTS		TOTAL POINTS LOST
				TIME		