

# APPRENTICE NAVIGATOR'S PACK

First of all, a **brief** introduction to how a classic rally works.

The event runs from A to B to C etc. via a route determined by the Route **Instructions**. You must pass through Major Controls, Untimed Passage Controls and possibly Timed Passage Controls en route. The position of Major Controls will be defined. That of Passage Controls will not but they will be on the correct route and if you've plotted **correctly, you'll** 'stumble' across them. Major Controls are called M1, M2, M3 etc.

After lining up at the start control (M1) in the specified car order, **you'll** be given Route **Instructions** for that Division (generally 5 minutes before **your** Start time). Most events have a list of questions at specific distances that must be answered en route and these are generally at the back of the Instructions. **First** step is to tear them off and give them to your driver, stick them to the dash or similar. After plotting for 5 minutes you will be **given** your Road Card (on which you enter answers and **officials** enter times or stamps at various controls) and you're on your way. If you haven't plotted enough to know where you're going, pull to the side of the road (away from the control) and keep working on it. Once you're under way, you will hopefully be answering questions, noting **VRCs** (stands for Visual Route Check and is a letter on a white board marked 'P' that you will pass) and going through Passage and Major Controls till the end of the Division. You must stop at manned Major and Passage Controls to have your Road Card marked by officials.

This pack has **been put together** to give you an understanding of the methods used for **navigation** in a touring road event such as The Alpine Classic. Read them, understand them and practise them with your driver on the dining room table. We've given you a clean (**albeit** a photocopy) **practise** map and instructions similar to the ones you will encounter on the event. See if you can plot the route and then check **it** against the marked map. If you got **it** right, congratulations, you're on the way to being a champion navigator. If not, try and figure out where you went wrong and if you're still having trouble, give one of us a call and we'll lead you through it. Don't get too cocky though. Navigation is not quite the same when your driver thinks he's just entered **the** world tally championships!!

Read the Supplementary Regulations (probably several times) and make sure you understand them. If not, call one of us. These vary a **little** from rally to rally, so you can't ignore them.

The route is **divided** into Divisions – usually a morning or afternoon. Each division is divided into Stages from one major control to another eg **M2 – M3**.

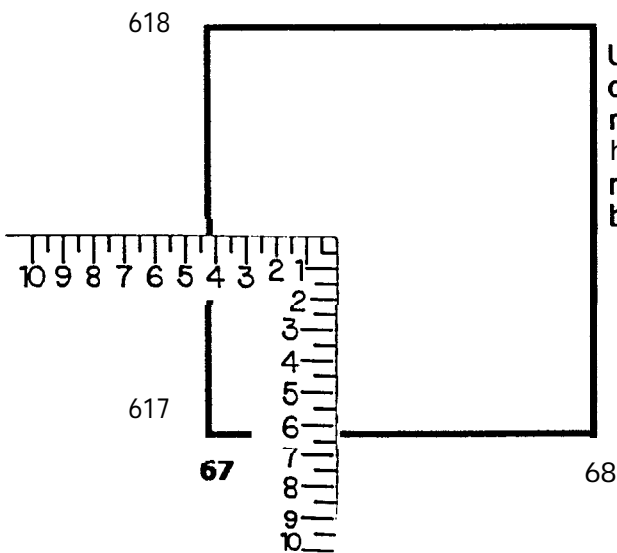
You will be given a distance and time allowed for each stage eg 56 km, **48 mins**. **ie you** need to enter M3 **48 minutes** after leaving M2 having travelled 56 km. Work out what time you're due at the next Major and work out an **average speed for the stage to give you an idea of the speed you must travel. ie  $56\text{km} \times 60 = \sim 70\text{kph}$**   
48min

Read through all the instructions carefully eg areas that are out of bounds etc. Mark the map appropriately.

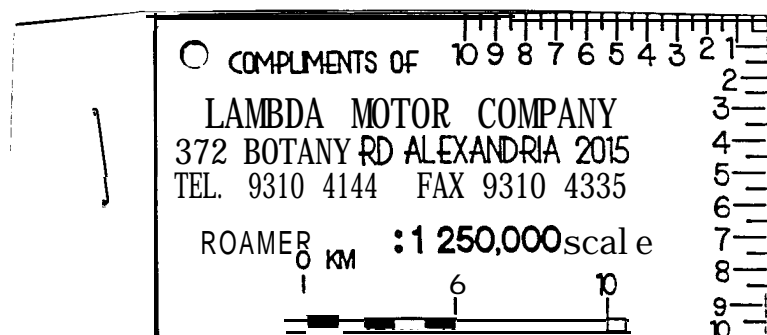
Read through the questions and check they're in distance order. Some drivers make the questions their responsibility but **that's** up to you.

Start plotting the VIA points. These may be given in the form of the following.

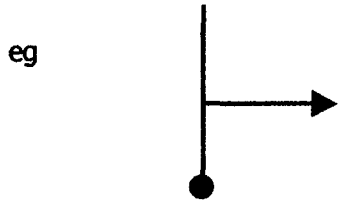
**GRID REFERENCES : (and these are the most important) The 1:250,000 maps used have a grid marked in blue with two digit numbers at the edge. (Completely ignore the 1:6 on the **horizontal** lines – it's not **used!**) Don't confuse **these blue lines with the black longitude and latitude lines. Grid** references are given as an eight **digit** number eg GR 6742 1763. The first two and fifth and sixth numbers put you in the correct grid square, **the** others pinpoint you. **ie** 6717 puts you in the grid square to the right and above those lines.**



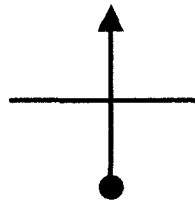
Using the roamer (the right way up) slide it along the grid till 42 on the roamer lines up with the 67 vertical line on the map. Then move the roamer up till the 63 on the roamer lines up with the 17 horizontal line in the map. The right hand top corner of the roamer is the grid reference you're after. Mark it. Sounds tricky but it's not once you get the hang of it. Practice makes perfect.



**TULIPS** : Named after The Dutch Rally that first used them in the UK. These are easy. Start at the ball and follow the arrow. These can be 'mapped' or 'unmapped'. If 'mapped', follow the route on the map. If 'unmapped', follow the instructions as you drive along the road. If the instructions say nothing, you must presume it is as mapped.



ie turn right

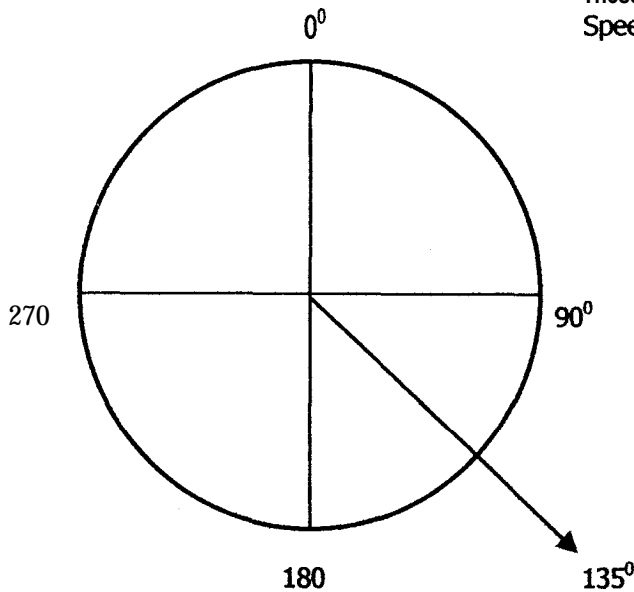


ie straight on at the crossroad

Make sure you are clear from the instructions or Supplementary Regulations what the definition of a road is (could be signed roads, sealed roads only etc) and always check tulips are in the correct order. Rally setters are sneaky!

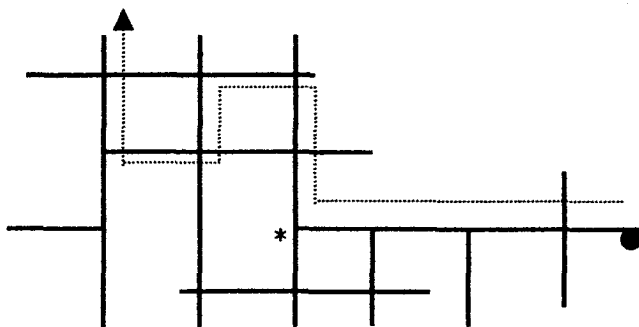
**BEARINGS** : Put the middle of the protractor at the starting point with 0 degrees directly North (check the Supp Regs as the blue lines are often deemed to be north). Read the degrees needed and mark the direction eg 135 degrees

These instructions may be combined with Speed/Distance/Time calculations

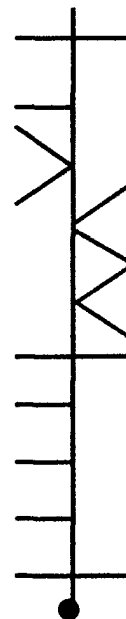


**HERRINGBONES** : These are a bit fiddlier. The straight backbone represents the road you take, the side bones the roads you don't want. It's as if the road you are taking is a piece of string and is pulled straight - all the other roads then poke off to the side. Again, start at the ball (except it's not always marked).

The map

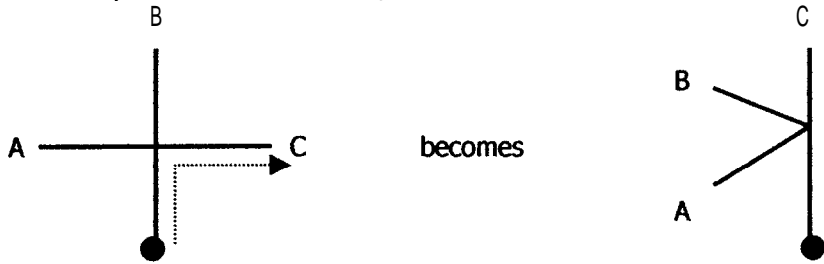


becomes



Ignore the side branches. ie at \*, ignoring a road on the left means turn right at T.

The bit that looks **tricky** is, for example, a right hand turn at a **crossroad**. On the herringbone you actually leave two roads on **your** left ie A and B. Again, check the definition of a road in the Supp Regs.



MAP TRACE : Pretty **obvious** stuff. The route **instructions** will give you a **wiggly** line  
eg



Find the same on the map and follow it. A clear sheet and a marker pen can come in handy here so that you can trace **the line and hold it over the map to check they match**. Traces may use a **different scale, be rotated or be a mirror image**.

DIRECTION OF **ENTRY/EXIT** : These **will** be given in your route **instructions** and are fairly straight forward but someone always forgets one and enters a **point** eg from the south instead of the east. This will not only mean you've been on the wrong road and may have missed questions and **VRCs** and now have your distance wrong for future observation **points** but you **could** also be **penalised** for a wrong **direction** of entry into a control. A very small mistake but a very expensive result.

MAPPED FEATURES : Fairly obvious. eg leave a railway on your left (ie left of road in direction of travel)  
Keep three golf courses on your right

Do what they say and you'll be right on the day!

**THE CLOCK**: **Sometimes** instructions are given in the form of time and you will be told to eg 'Enter from the minute, leave on the hour' A **list** of times will follow eg **3:30, 6:45** etc. Imagine a clock face (better **still**, draw one) the minute hand is where you're coming from, the centre is the **intersection** and the hour hand is the direction you're to go.

AVERAGE SPEED SECTIONS : The **instructions will** tell you to travel at a certain speed for a certain **distance** or **time** or **combination** of the three. This will **keep** the navigator busy calculating at what **time** you **should** have reached what distance at regular intervals until you reach the end of **the** average speed section.

Handy formulae, especially for average speed **sections**.

$$\text{Speed} = \frac{\text{Distance} \times 60}{\text{time (mins)}} \quad \text{time (mins)} = \frac{\text{Distance} \times 60}{\text{Speed}} \quad \text{Distance} = \frac{\text{Speed} \times \text{time (mins)}}{60}$$

**AT LAST** : **Join up your VIA points, usually in order and usually by the shortest mapped route but you must take into** account all instructions eg using only sealed roads, making your plotted distance match the given **distance** etc etc. **Shortest** mapped route can be either '**point to point**' ie through each **VIA point** in **order** or overall' ie through all **VIA points** but not necessarily in order. If you're totally bamboozled by now, don't panic. Read it all again, **practise** some more and if you're still in trouble, give us a call.

On **1:250 000** maps (**which** we use), 4 cm = **10 km** = **1 grid square**. Making an appropriate scale is handy.

## RECOMMENDED TOOLS OF THE TRADE

Ruler, 360 degree protractor, geometry compass, dividers, rally romer (supplii), lead pencil, sharpener, eraser, paper, pens, **highlighters(two or three different colours)**, calculator, stopwatch or timer, a firm board with **bulldog** clips for the maps, travel sickness pills, sense of **humour**. A **correction factor** for your odometer as measured against the official distance will be useful.

**HANDY HINTS:** ie things most of us forget to do occasionally!!

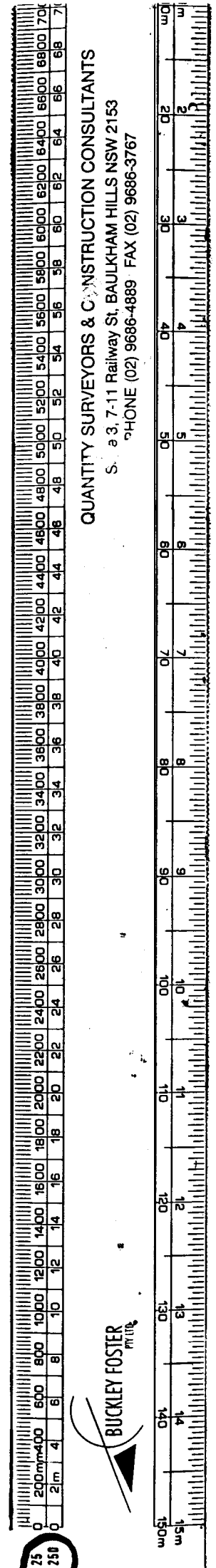
- Zero your trip meter and timer at the M board (or where you're told to)
- Put a line through the **miles/kilometres** (whichever you don't use) on the route instructions
- If using more than one map, don't forget they overlap
- Hang the romer around your neck - they're easy to drop and impossible to find
- Make sure you **memorise** the abbreviations in the Supplementary Regulations
- Get used to the legend on the map to **recognise** railways, power lines etc
- Set your timer to 'Rally Time' **which** will displayed at the start
- The Penguin NSW Road Directory is recommended to help you through towns
- NRMA maps can come in handy but are definitely not necessary
- Last but not least, don't panic - it's meant to be fun!!! If you do panic or get lost, calm down, take a deep breath and start afresh. It can be guaranteed that you're not the only one having trouble. Even the so-called experts make mistakes.

Don't forget well be running a Nav school for the Apprentices after Scrutineering on Saturday **6<sup>th</sup>** October.

For those of you that don't know, Scrutineering involves a CAMS approved scrutineer checking out your car - much the same as a rego check. We also check all paperwork, **licences** etc and hand out your Rally Pack on the day.

If you need help or have any queries, please call one of us.

Adrian **Carrick** 9498 7392  
John Henderson 9416 2022  
Lui **MacLennan** 9498 7392



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BUCKLEY FOSTER  
PTY LTD



# Classic Rally Club Inc.

## Alpine Classic 2000

### Apprentice Class

Division 3

~~Cross a bridge in GS 5208~~

~~The bridge in the instruction above is at Mangoplah. To get there, you must take into account the out of bounds in the top instructions. This forces you, after leaving The Rock to the SE, to turn SW about 2 km short of Mangoplah and then loop back to the bridge from the S.~~

111.96 69.57 VIA RJ GR 5237 0866. Enter from ESE

~~To enter this RJ from ESE, you must go through it and then loop clockwise back into it from the ESE.~~

143.75 89.32 VIA ~~RJ reached by a light plane travelling at 180 kph for 8 minutes on a bearing of 135 degrees from WAGGA WAGGA.~~

~~RJ GR 5415 0996~~

~~Cross a longitude marker before exiting GS 5409.~~

~~Head SE till you reach the TJ just after the bridge and then turn N~~

~~Leave an aerodrome to N~~

~~After you hit the Sturt Highway, you must head S around the aerodrome and go back to the highway by the shortest mapped route.~~

182.39 113.33 VIA RJ GR 5391 1127

Pass within 100 m of Wagga Wagga railway station

Exit a RJ mapped 7 km from Wagga Wagga railway station to NE

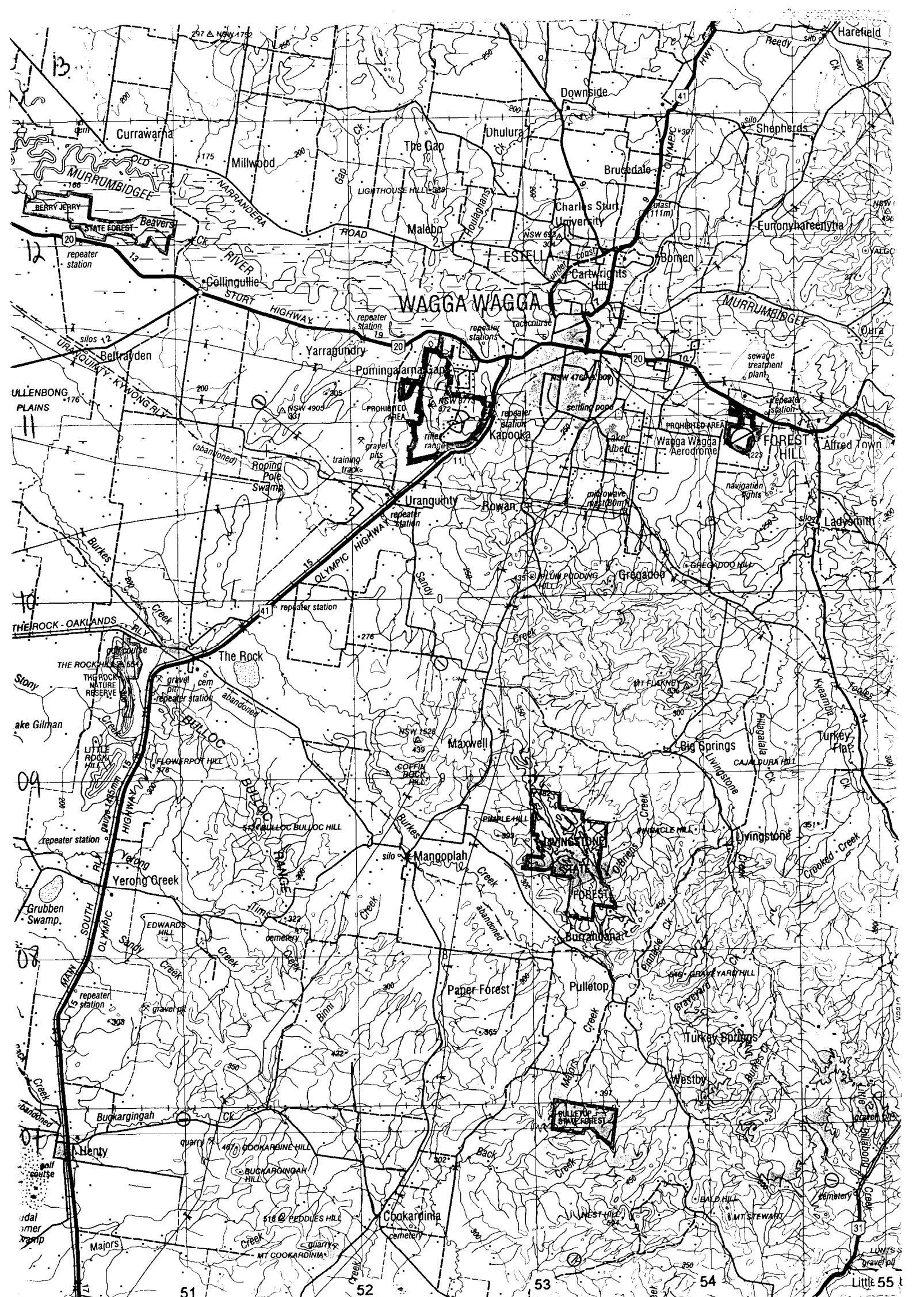
~~It's the RJ 2 km W of Bomen, heading N on the Olympic Way out of Wagga.~~

Proceed using the following mapped herringbone instruction:



~~If you can't make the herringbone work, just go directly to M3.~~

212.36 131.96 M3 RJ GR 5305 1278





SERIES 1501  
SHEET SI 55-15  
EDITION 1

## DO NOT TURN OVER THIS PAGE

The set of trial instructions that we've supplied are in the identical format as you will have on the Alpine Classic.



As Apprentices, you have been given the full Route Instructions that the Masters crews receive. Where the full instructions are unnecessarily complex, a line has been struck through them. An alternative easier instruction and an occasional hint for Apprentices has been added. They will have been highlighted. This means that anything with a line through it can be completely ignored in the-heat of the moment. It makes it look a bit messy but gives Apprentices the advantage of being able to see what is expected of the Masters crews at a later time. If you feel you can handle that level of navigation, you may be tempted to sign on as a Masters crew next time!!

On this page is the legend showing symbols for interpreting the map supplied. On the reverse side of the page is the marked map to show where you should have plotted the route. Don't, repeat, do **not** look at the marked map until you've completely plotted the route on the clean map or are totally bamboozled by the instructions. ~~If that's the case, look at the marked map along with the instructions and try and work out why the route goes where it does.~~

If all else fails, call us.

Good luck and don't forget to read all the instructions carefully.


### POPULATED PLACES

Built-up area; Town/Settlement; Building/Homestead  


### CULTURAL FEATURES


Windpump; Yard; Church; Located object    

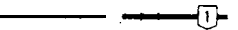
### BOUNDARIES

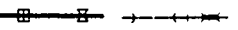
Interterritorial/State; Other administrative 


### ROADS/RAILWAYS

Sealed two or more lanes; Sealed one lane 

Unsealed two or more lanes; Unsealed one lane 


Vehicle track; Bridge; National route marker 


Stock grid; Gate; Railway tunnel; Bridge 

Multiple track with station; Single track 

### DRAINAGE

lake: Perennial; Intermittent; Mainly dry 

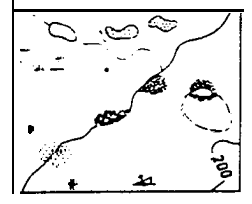
Marsh or swamp; Perennial waterhole; River or creek 

Subject to inundation; Intertidal ledge or reef 


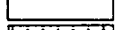
Tank or small dam; Mangrove; Shoal 



Saline coastal flat; Intertidal flat 



Rock bare or awash; Wrack exposed; Depth curve 






### VEGETATION



Forest or woodland; Dense; Medium  

Pin forest: Pine  


Plantation, orchard or vineyard; Windbreak  


### CONTROL RELIEF AND TERRAIN ELEVATIONS

Horizontal control point; Contour; Cliff   

Spot elevations; Normal; Critical  235  673

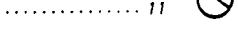

HIGHEST KNOWN elevation is 7 784 metres at the following co-ordinates

Geographic  35°59'S, 148°30'E

Grid  FA 3617

± following elevation value indicates accuracy is not within 30 metres

### AERODROMES (Military or Civil)

Runway pattern known  LISMORE 11 

LISMORE - Name

Elevation

Runway pattern unknown 

HELIPORT 

### OBSTRUCTIONS AND VISUAL AIDS

Obstruction  1108 (259) 

1108 - Elevation of obstruction top, above sea level

(259) - Elevation of obstruction top, above ground level

Group obstruction 

Radio facility obstruction 

Power transmission line 