

# Course Setting

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## Introduction

This document will provide information for anyone taking on the role of an NSWRA Course Setter or Vettor. It supplements and updates the sections on 'Preparing a Course' and 'Vetting' in the International Rogaining Federation (IRF) manual, "Organising a Rogaine" by Rod Costigan. First time course setters should read this document in conjunction with the IRF manual. Reading this document should also help experienced operators catch up on some of the new techniques that technology has made available.

## Selection of an area

Your first task as a course setter will usually be the selection of an area. There are a number of often conflicting requirements.

1. The type of terrain and vegetation and the size.
2. The location - How far is it from Sydney?
3. The availability of a suitable Hash House site. Some of the points you have to consider here are all weather access for ordinary vehicles and sufficient suitable camping sites. It is best if the site is near the middle of the course.
4. Availability of a usable map.
5. Land owner's permission.

When you have picked a spot that seems to meet these requirements you then need to set out on foot and check the area over. This is the only way you will get a true 'feel' of the area. This is important because it is going to influence your placement of check points.

## The Map

The rules of rogaining were drawn up to make it possible to use 'off-the-shelf' maps. This occurred at a time when compiling your own map or even making alterations to an existing one was an expensive operation that required special skills. While it is still quite acceptable to present an event with an 'off-the-shelf' map, you will soon find when you start setting check points just how restricted you are by the limitations of the map. Fortunately advances in technology have lifted the restrictions. Anyone with basic computer skills can soon become a rogaine map maker. See the section on Map Making.

## The Setting Process

Having selected your area and made an initial survey, spread the map out under a good light and do an 'arm chair' set. Try to distribute the check points evenly with a spacing that gradually increases as you get further from the Start. The grid squares help here. You also need to make an initial estimate of the 'size' of the course where 'size' is the shortest distance a team would have to travel to visit all the check points. This will always be greater than the 'as-the-crow-flies' distance. Just how much more depends on the topography and vegetation. It is a complex problem which you will have to grapple with as the setting progresses.

For now all you can do is make some guesses. Statistics from past events always help and these would indicate that 90km would be a good figure to start off with for a typical 24 hour NSW rogaïne. This figure together with the check point spacing that you work on will determine the area you need. For a 24 hour rogaïne 100 sq km is usually ample. These figures are lower than suggested in the IRF manual. The manual has a Victorian/West Australian bias. NSW courses are usually a lot 'slower' than in those states.

Like all great inventions and works of art, course setting is 1% inspiration and 99% perspiration. You now set out with a map marked with your chosen sites and start checking them out. What you will find is that at best about half of the spots you have picked are usable. Common reasons a site proves unusable are too much or not enough vegetation and errors in the map.

What does happen however is that you 'find' what often turn out to be the best sites during the days spent walking the area. Many of these will be unusable even with a "The" description because of lack of detail or errors in the map. Some extra time with a map board and a GPS in the field followed afterwards by an OCAD session will soon fix this problem. Read the mate to this document, "Making a Rogaine Map" to see how this is done.

Once you start to accumulate sites the next thing to consider is the the layout or distribution of the controls and the overall size of the course. To obtain a good layout you need a good area. An irregular outline, out of bounds areas and extended physical features that restrict or bar progress all detract from the quality of a course. The best areas are ones where the controls can be evenly distributed with the spacing gradually increasing with distance from the Start/Finish.

You will of course be able to 'see' how you are progressing by just looking at the map. What is not so easy is to decide when the course is big enough. You don't want a team coming back long before the finish time with a full card and asking "Is that all?". On the other hand it is a waste of time and effort making the course bigger than necessary. The Australian Rogaining Association (ARA) Technical Standards para 2 have something to say about this.

A really useful tool that is available to check the size of a course is the Paul Shield's Route Calculator. Enter your check point data into the NSWRA database and it will generate the input required by the router. Copy the result onto your map and then look for obvious 'bad' route choices. The better your layout the fewer there will be of these. Make any necessary alterations and add the extra distance to the route calculator's figure. To decide if the course is big enough it is then just a matter of estimating the likely average speed of the winning team. This will be a function of the vegetation and topography. A knowledge of the results of previous events on similar terrain helps here.

## Checking and Vetting

The IRF manual states "It is strongly recommended that each check point be critically and independently assessed three times". The three stages are 'Setting', 'Checking' and 'Vetting'. It goes onto admit that most associations will find it difficult to find sufficient people to carry out all three stages and that the checking stage is likely to be deleted. The ARA Technical Standards only call for a two stage process.

Technology now provides the means to reinstate the checking stage. A hand held GPS gives your position with an accuracy of 10m. It is a simple matter for the course setter to carry a GPS and having selected a check point do the checking there and then. There is no excuse any more for misplaced check points.

If a check point is in a heavily timbered area in the bottom of a deep gully you may have to do a bit more than just switch the GPS on and take a reading at the spot. The ability to get a good reading at spots with limited visibility of the sky will be affected by the current satellite grouping. In these cases when you get home visit "<http://www.terraserver.com>", consult the almanacs which show where the satellites will be at any time viewed from where your course is. Pick a time to return to the check point when the grouping is most favourable. If trees are a problem at the exact spot, move to at least two spots near to the site where you can get a reading. Plot these points on your map and then check with compass bearings that they do relate correctly to your check point.

## **Allocation of Points**

The last stage of course setting is the allocation of points. The software tools built into the NSWRA database have been developed to help make this job easy and accurate. They assign a 'rating' to each check point and give you a listing in this order. The rating is based on a combination of three factors.

1. A 'difficulty' factor which you assign to each check point.
2. An 'isolation' factor which the database calculates. This is the sum of the distance to the two nearest check points.
3. The distance from the start which the database calculates.

Each of these factors can be assigned a weighting. As with the earlier stages copy the results onto your map and make any necessary adjustments to the order. The last step is to break the list into bands, usually with no more than ten check points to a band. Each band is allocated a points value.

The IRF manual has some very good advice on the allocation of points which you should follow.