

# Safety Code for Course Measurement

Prepared by UK CMWP- November 2007

## 1. General

Course measurers should be aware of the hazards associated with measuring road race courses. They should take all necessary steps to adopt a safe method of working and minimise risks to themselves and other users of the roads and paths being measured. This should include consideration of:

### **Equipment.**

Bicycle condition and maintenance.  
Protective clothing, including helmet and hi-visibility bib.  
Lighting if required.

### **Traffic**

Timing of measurement.  
Sequence of working.  
Escort vehicles and traffic closures.

### **Terrain**

Rain, frost and ice hazards.  
Loose surfaces.

### **Weather**

Clothing suitable for expected conditions.  
Precautions against sunburn and dehydration.  
Limiting conditions of wind, rain, fog and temperature.

This code contains in a logical order the steps you can use to assess the safety of a course measurement and makes suggestions of how to deal with situations which present a hazard. When measuring along the Shortest Possible Route (SPR) as measurement procedures prescribe, you could depart from usual riding behaviour expected by other road users. You must make this safe for yourself and your escort. If you can't make it safe, don't measure. You can always consult an experienced measurer to advise what further options may be available. This code is not for the safety of the race which is the responsibility of the race director to assess.

## 2. At your first contact with the race director:

Ask whether there are any hazards in measuring the course. If necessary, explain that you will have to measure along the SPR. Does the race director think that a police escort will be necessary to protect the measurer, and if so will he arrange it? Can it be measured at a quiet time? Depending on what he tells you, warn him that for the measurement you will need to be accompanied by one, maybe two escorts on bicycles or in vehicles: someone in front to indicate the route to you, and someone behind to provide a safety warning to overtaking traffic.

If the race director is new to measuring, you can draw his attention to this safety code, which may supplement what you tell him and help him understand what you will expect from the escorts.

### **3. Once you have received the race director's map of the intended course and details of the section of the road which will be available to runners, you can begin to your own safety review:**

Get a large scale map of the route which will give you a preliminary idea of the bends in the roads. In which direction will you plan to measure? Will it involve keeping mainly in the left hand lane or are there places where you would have to cross to the right to follow the SPR on right hand bends?

What is going to be the best time of day to measure? For example if you decide that there will be least traffic very early on a Sunday morning, perhaps the summer will be the best time of year to measure because of the long daylight. Encourage events, which you know will be coming up for measurement, to get this done at a time of year that will be safest for you. If you are considering measuring in darkness in the middle of the night, you need to find out if it will be practical, e.g. will there be street lights; are you going to have to rely on lighting of the road by escort vehicles so that you can see enough to determine the SPR?

This initial review of the course map will also enable you to make an estimate of the amount of time required for the measurement and whether multiple visits will be required. When you tell the race director, explain that you may need additional visits, if once you see the course you decide that measurement can not be safely done according to your preliminary plan.

### **4. Preparation of your safety equipment before the measurement:**

A few days before the measurement it is a good plan to check that you have all safety equipment ready. You will usually need the following:

- High-visibility safety bib, bearing the words "course measurer" on back. As well as helping you to be seen this will explain to other road users behind you just what you are doing. (If you have not been issued with a bib when you did your qualification, or if you need a new one, please contact your area measurement secretary.)
- Cyclist's Helmet
- Bicycle lights if there is any possibility of night time riding.
- Clothes appropriate for the expected conditions but also take additional clothes which might be needed if the weather changes.
- Food and drink for long rides.

### **5. Measurement day:**

Clarify all points about the route and sections of road available to runners. Drive around the course with the race director (This is optional – it's your call. Do it if you think it would be helpful to see difficult points and to discuss the sections of road available, and assess the safety of the measurement).

Now you are actually at the course and can see the conditions you can complete your **personal safety assessment** of your measurement riding in traffic. Bear in mind the possibility of measuring different pieces of the course in different directions. For example, if the runners are to run a section against the traffic in the right hand lane, you may judge it to be much safer to ride this portion in a reverse direction so you are travelling with the traffic. This may make it more complicated for you to piece together the different measurements that make up the whole course and to layout the intermediate distances, but safety should always be your first consideration.

If you conclude that part of the course is **unsafe** to measure along the SPR, you will need to adopt an alternative. It might need to be measured on another occasion when there is no traffic, or else some alternative measuring procedure has to be worked out. This may mean that you cannot measure all of the course on this occasion, and more work will be needed later. Explain the problem to the race director and offer to measure what you can on this visit. Perhaps you can make an approximate measurement of the dangerous section (not along the SPR), which will be good enough to confirm roughly where the start and finish will be.

If you can't find a suitable time to measure the dangerous section, and can't get the race director to get a police escort or have the road closed to traffic, then you may need to resort to advanced measurement and calculation techniques. If you are not familiar with appropriate surveying techniques, you should consult your area measurement secretary or some other experienced measurer about such problems.

Instruct your escort on what is expected of them. The escort behind you should stay very close to you, so that there is not room for overtaking traffic to slot in between the escort and yourself, and so you can easily communicate by shouting. If he is on a cycle, he should frequently look behind for traffic, and warn you if it is not safe to pull out from the left hand side. He should also supplement any hand signals you give, maintaining them for as long as necessary to inform following traffic of your intentions. If you are accompanied by a motor vehicle, you will need to stop measuring to communicate. You should indicate your intentions to the following escort vehicle by hand signals and he should repeat them with his vehicle indicator signals to warn traffic.

The escort in front of you will be primarily to show you the route, and to enable you to pick out the SPR. They should be instructed to ride 50 to 200 m ahead of you (depending on the visibility along the course), checking back frequently to maintain station with you. Thus they will not normally be directly helping to maintain your safety. However, they may be helpful if you have to cross the road close to a blind corner. They may be able to find a position where they can see round the corner while still able to signal to you that the road ahead is clear and it is safe for you to proceed. Such manoeuvres usually need to be discussed and planned carefully to avoid misunderstandings, and this can only be done if you stop the measurement to carry out the discussion.

During a ride you should stop and consult your escorts about route ahead whenever necessary. Remember to check that they are happy with their role and not becoming tired or cold, or if it is the middle of night too sleepy to continue safely.

If during a ride you encounter another road user (this includes pedestrians, horses, cyclists as well as motor vehicles) on the SPR where you need to ride, you should either stop and let them pass or else stop, note where your front wheel is in the road and carefully keeping front wheel brake applied, lift your bike to the side of the road out of the way of the other road user. Resume your position in the road and continue the measurement once it is safe to do so.

Pay particular attention to giving pedestrians priority when you have to measure over pavements. It is usually impossible to measure both safely and accurately on crowded pavements, these sections will need measuring at a quiet time or else by exercising considerable patience to find gaps where you can safely proceed.

When mounting kerbs or passing over other irregularities such as potholes, pay careful attention to your balance to avoid being tipped off your bicycle. It may be necessary to slow or to stop riding and wheel the bicycle over the obstruction.

## **6. Course Measurers are not responsible for Race Safety Assessment:**

The safety of runners during the race is **not** the responsibility of the course measurer but of the race director, who must carry out a safety assessment. However, there will be occasions where the course measurer may make suggestions for a change of course in order to adjust it to the required distance, so it is best only to suggest routes which can be made safe for runners. If the course selected by the race director will obviously be difficult for the race director to make safe, you can certainly point out your concerns. However make sure that as course measurer you do not endorse the safety of the course for the purposes of the race director's safety assessment.