

## Striking session at Wokingham All Saints in 25 January 2019

### Background

The quality of striking is often criticised but objective assessment of striking is difficult and feedback is rarely given. Many ringers are unaware of how good or bad their striking is, and would be unsure of how to improve it.

A 'strikeometer' using Cirel software has been installed and running in the background during normal ringing at Wokingham All Saints for over a year. It has generated interest among the band but not been fully exploited. Cirel can provide comprehensive analysis of striking (overall and by individual bell) but there is little time to do more than glance at the summary after each touch during normal ringing.

A session was run as part of Sonning Deanery Branch training programme to focus on striking and explore how Cirel could be used to help improve striking. The participants were: 'students': Adedayo Ajibola, Steve Bates, Andrew Eastwell, Andrew Mitchell, Rob Needham, 'tutors': Nigel Mellor, John Harrison.

After the event each participant submitted thoughts based on their experience of the session, which are presented here (with minor edits). As well as helping to improve future sessions, the intention was to use the comments as the basis of an article (however one set of feedback was written as a complete article).

### Adedayo Ajibola

I'm glad I signed up to do the course, I enjoyed it and it has highlighted things to work on during weekly practices.

1. I agree ... that a longer time on the bell [would be] beneficial as it will help me settle into a rhythm and hopefully build good muscle memory from doing the correct thing for longer
2. I feel it's a worthwhile exercise for a tower group to do together. It may be an idea to use one of the weekly practices (coordination through tower captains should make it easier) - seeing as members of a tower ring together and already combine different abilities, each member will benefit from learning how to improve their individual ringing as well as the group. New learners like myself will benefit from forming the correct habits right from the outset etc.

### Steve Bates

As a tool I think that Cyril is useful to see what went wrong, and also to pick up on any specific trends.

I now know that I have a specific goal to focus on my leading when hunting to get squarer ends. So picking one thing and focussing on it this is a good tool as you would be able to see any improvement.

For correcting and improving general striking it does not tell you what you are doing wrong, which for me comes back to handling. Also the delay between ringing and seeing the results means that you have to put a bit more effort into remembering how you rang through a session to be able to benefit most from the debrief. Maybe stressing this point during the pre-ambles would have helped me get more out of this more quickly.

It might be interesting to keep the same band in the same bells for a few consecutive sessions to see how much improvement is made as a team.

I think that the improving listening skills is (for me) a more important skill as the feedback is more instantaneous.

I enjoyed the session and overall did feel it was valuable – and know that next time we have Cirel and I'm hunting I'll be looking to see how 'square' my leading is.

### Andrew Eastwell

An evening with Cirel – Wokingham All Saints is fortunate to have, in addition to the 8 bell tower, a ringing tutor who is never wrong, never forgets and offers an uncritical and unbiased opinion on your striking performance.

Cirel, for those unfamiliar with the device, is a PC based electronic assembly that uses optical sensors to measure the rotation of the bells. It will follow a touch and record every strike and present visual analysis that illustrates the accuracy of each ringer's performance. For the really enthusiastic it is possible to take a file of the touches home and, using a downloaded version of Cirel, do your homework to understand where you might modify your ringing. For more recreational ringers a better option may be for experienced users of Cirel to offer a group session using Cirel as part of a tutoring activity.

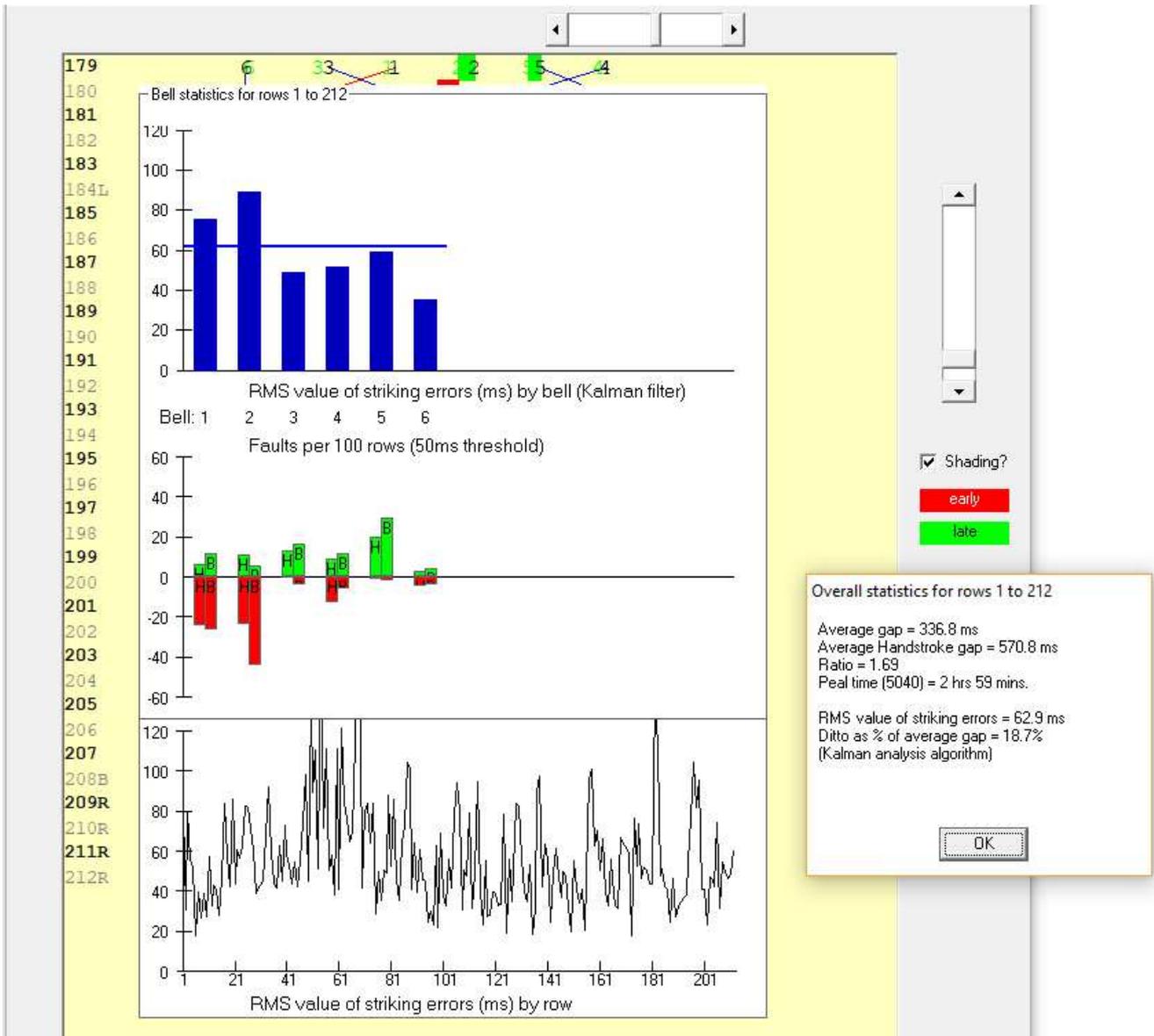
[I attended] an experimental session to see how such a tutorial might best be presented and so with the expert help

of John Harrison and Nigel Mellor a group of mixed abilities ranging from plain hunt novices up to more seasoned method ringers spent a couple of hours under the unblinking eye of Cirel and his two minders.

We started with an extended rounds call principally to allow familiarisation with the bells but also to provide a data set that was used to demonstrate some of the principal features that Cirel offers. It is not the scope of this article to catalogue these in detail but more information is available.

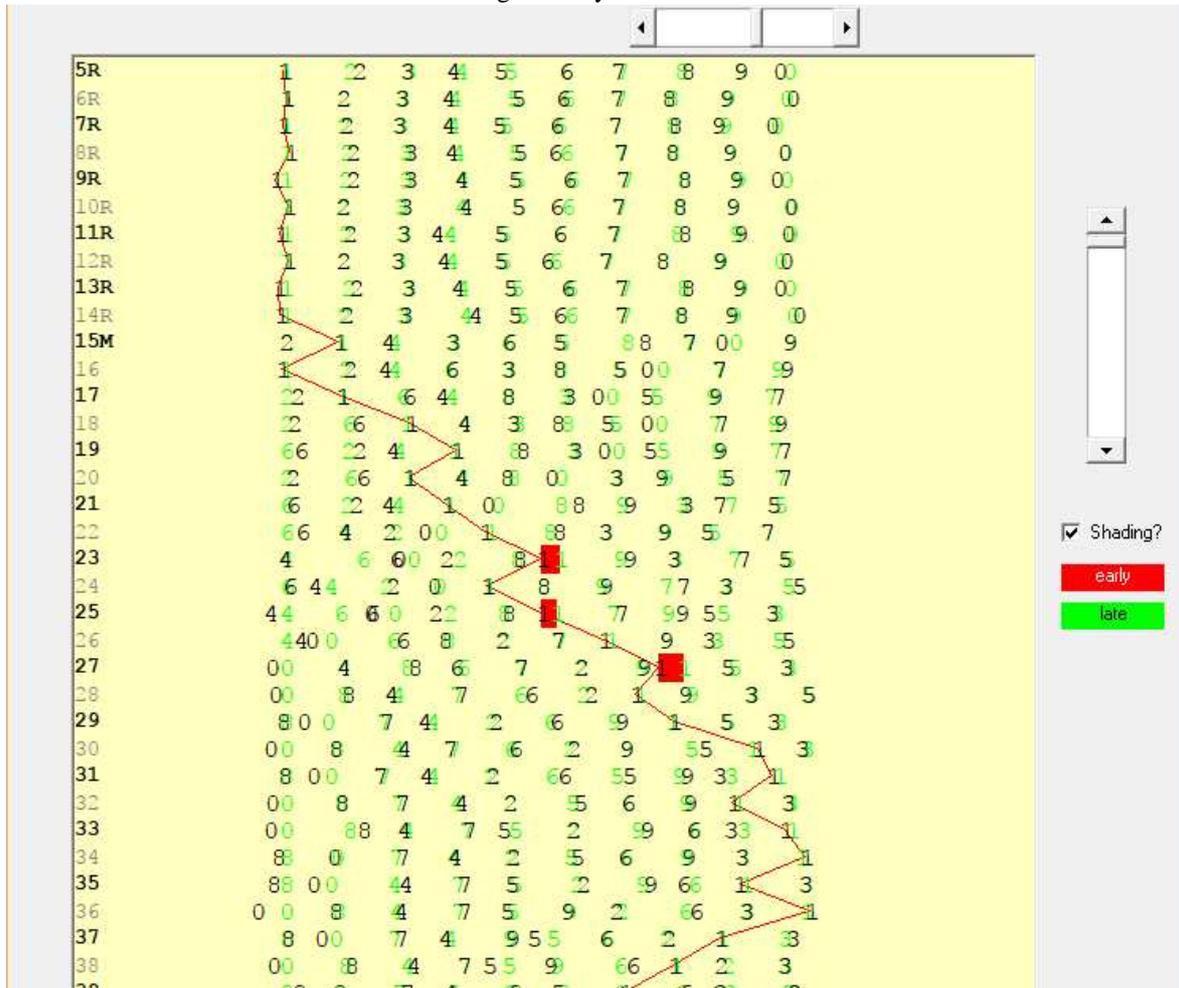
It is worthwhile making a note of the individual scores that are offered at the end of the touch as it is instructive (and maybe satisfying) to compare this score with a similar closing touch of rounds at the end of the tutorial session.

Cirel identifies differences between hand and backstroke performance, and it quickly became apparent that to improve striking it was bell handling technique that was in need of adjustment, and not just listening skills, associated with striking. Clearly in a mixed ability group such as ours not everyone needed coaching in this aspect, but a little time spent here gave some good improvements.



*Example of performance feedback (from Cirel user guide)  
 Top: overall error of each bell with average across all (line)  
 Middle: 'faults' (>50ms) per 100 rows late/early & hand/back  
 Bottom: Overall error throughout the touch (212 rows)  
 Right: summary statistics*

Sonning Deanery Branch – ODG



*Comparison of the timing of actual blows (black) with the calculated ideal timing (green), with one bell highlighted (from Cirel user guide).*

Moving on to plain hunt touches then really illustrated how Cirel is able to illustrate the performance of the band as a whole and the tendency for errors in one bell to propagate through the row as each ringer attempts to maintain a correct timing with adjacent bells but at the expense of overall timing. The visual analysis provoked good discussions around the tower, which might otherwise not occur in a practise session because the factual data is not usually available. At a rough guess about half the time spent in the tower that evening was spent discussing results rather than ringing, which differs markedly from a usual practice where rope time is usually at a premium.

So how was the experience for a fairly new ringer?

Sessions such as this could, if not run carefully, be a bit like a marked exam and this could be dispiriting – but this was not the case in our session. All the attendees were keen to see their outcomes and to chat with the experienced ringers to understand what could be done to reduce their errors. As this was only ever intended as a trial run of a course, we did not compare our early scores with final efforts but this could actually be done post the event by recovering the stored session files and viewing them on the free software – providing you remember which bells you rang!

So, for those of you with long memories – Nice one Cirel!

**Andrew Mitchell**

Cirel is very illuminating on ringing timing. I strongly agree [with some other comments]:-

1. If you are not very familiar with All Saints bells, and a newish ringer like me, I think it is a good idea to have 10 minutes ringing on the bell(s) to help get familiar with ringing the bell(s). And maybe put knots in as needed. (For example: at Easthampstead I know the 6 needs careful rope handling because I am not sure whether it is a light or heavy bell. The 7 needs pulling almost with the 6 at both hand and back when ringing all 8. The tenor needs pulling an extra bit late after the 7 - other ringers get caught out by this too).

2. After ringing a bell with a particular combination of ringers and seeing and understanding where the errors

occurred, it is good for me to have a second go on the bell with the same combination of ringers, and trying to achieve a better result. I guess these rings are most helpful to me if quite short e.g. a minute. So that I can remember the challenges and problems I faced when ringing.

3. I found John, and Nigel's comments most helpful, especially about my striking and my (poor) rope handling.
4. I think one of the excellent things about this course is it gives me a fantastic chance to listen to my ringing carefully, and make corrections, not on the basis of what I can see or hear is wrong, but on what Cirel says is really happening.

Thanks for an excellent, helpful and friendly course - I am looking forward to having another go with Cirel.

### **Rob Needham**

I attended a striking session at Wokingham All Saints recently; it was run by John and Nigel and comprised ringing sessions that were analysed for accuracy of striking by software called Cirel. At the end of a ringing session, each bell of the six got a rating for percentage early and percentage late for handstrokes and for backstrokes. Also the path of each bell was shown graphically, with two colours used to show where the bell was early or late by more than a small amount.

The key part of the course was the study of your bell's path on the computer screen and trying to see whether there were any trends in the accuracy of one's striking, and what might be causing the errors. For example, although I was pleased with the overall quality of my striking I noticed that I was 'late' a lot more often than 'early'. This persisted throughout the ringing sessions that I did that evening, but did improve a bit as time went on.

The 'strikeometer' certainly encourages one to listen very carefully to the ringing and the overall rhythm of the ringing. Unlike software such as Abel, where most of the bells are 'rung' by the computer and you are fitting in to perfect striking, Cirel analyses the whole performance of a real band with all its glitches and errors. This is much more like what happens when we ring at our own towers – we need to try and strike in the right place by rhythm even if some of the bells are striking unevenly.

This course should certainly improve one's awareness of one's striking errors, which we all have regardless of our ability, and I commend it to all members. I believe it is most useful to fairly experienced ringers who can set a reasonably stable performance by the band.

### **Nigel Mellor**

I thought the overall training was extremely useful, these are my thoughts:

Look for a measure of improvement by scoring the same band at the start of the striking training and at the end; hopefully it should show improvement!

We had a lot of learners in the band, it would be interesting to have a session with a band of 'good' ringers around a less experienced person

Our trainees tried too many different bells, I felt we should have made them stick to just a couple so that they could get 'used' to the bells they were ringing.

Start the recording of the striking once the band has settled rather than from the very beginning, this would need someone to control the PC. If we do this it would overcome the issue Steve B. felt that he could not remember all the striking mistakes he made. Maybe more useful for method ringing.

### **John Harrison**

The session helped me to clarify what we are trying to achieve with striking, which is not a simple problem. A strikeometer is a measuring tool that can analyse how good or bad the striking was and where it was wrong. But that is only one element of what is needed to make improvement.

Cirel provides a lot of information that needs interpreting to understand how it relates to underlying causes and to decide what is significant and what is just 'noise'. We tried to do that, and with more experience we may be able to identify more patterns in the results and relate them to possible causes.

But a ringer needs to know more than what was wrong in order to make improvement. He/she needs to understand the underlying causes, and how to modify the ringing action to avoid them. Even with advice that can be hard for inexperienced ringers to do, and it's harder for some types of error than others. Types of error include:

- Overall biases – eg tending to be too late, or handstroke & backstroke being different
- Manoeuvring errors – eg overshooting the lead, incomplete dodges
- Systematic errors – eg ringing close/wide over heavier/lighter bells
- Distraction errors – eg holding up over a bell in the wrong place
- Stability errors – erratic moves and/or over-reaction to disturbances
- Failure to adapt – not adjusting the ringer's action to the bell's behaviour and/or speed of the ringing
- Residual variability – the limit of the ringer's ability to control slight unpredictability in rope and bell
- Group error – the collective effect where it is harder to fit accurately a rhythm that is not overall accurate

For the errors at the top of the list the diagnosis is fairly clear, and first-line advice is easy to follow. For example, a ringer who tends to be too late can make an effort to ring a bit earlier, and maybe shorten the rope, and one who tends to ring 'odd struck' can try to get a different balance between handstroke and backstroke, and shorten or lengthen the backstroke. Likewise manoeuvring errors can be reduced by anticipating them and compensating.

But errors further down the list are less amenable to such 'fixes' and require improvements to the underlying ringing techniques – bell control and rhythm. They also require the ability to self-monitor while ringing. This may be the most significant difference between the ringers who already use strikeometers routinely (mostly skilled 12-bell ringers) and those within the Branch who we would like to help. As I said at the start, a strikeometer can measure the result but it can't perform the functions of self-monitoring and bell-control while the ringing is in progress, but both are needed to improve the result. These must come from within the ringers, so for them to get most benefit out of performance measurement tools we need to help develop these inner skills.

So to support an improvement of striking among Branch members we need a combination of:

- 1 Coaching in accurate bell control
- 2 Practice in accurate listening
- 3 Opportunities to perfect and measure performance in a stable environment
- 4 Opportunities to perfect and test performance in a collective environment

For (1) the skills are available but deploying them to enough places, and often enough, could be a challenge. Also, they are most effective when integrated into initial training and development rather than added on after an individual's ringing style and habits have formed.

For (2) we already offer listening courses, and self practice resources are readily available.

For (3) there are simulators available in some towers (and they could potentially be installed in more).

For (4) we can develop and improve the recent session, but ideally alongside (1) - (3) rather than in isolation.

### **Points to take forward**

For sessions of this type, we should:

- Consider using more skilled ringers as helpers so fewer students ring at once.
- Supplement post-touch analysis with 'stander behind' feedback during each touch.
- Allow more time for familiarisation with the bells, and move students less between bells
- Have a final touch with students ringing the same bells as the initial touch, and compare performance.
- Encourage students to be aware of any problems while ringing, which can be related to the analysis.
- Encourage bands that ring together regularly to take part in the session as a group.
- Maintain a positive approach to using feedback, with emphasis on how to improve.

We should also:

- Explore complimentary forms of training and support that are needed to improve striking