

Stewardship & Management Workgroup

of The Central Council of Church Bell Ringers



## **Risk Assessment**

### In a Tower in which the Bells have Not Been Rung for an Extended Period

### Introduction

These notes offer advice about issues to consider in a health and safety risk assessment of the bells and tower prior to the bells being rung after an extended period (several months or more) during which they have not been rung.

This could concern a single bell, manual chimes or change ringing bells.

The notes were first compiled to aid ringers to return to towers to ring bells when restrictions due to Covid-19 were eased, but are applicable after other periods of non-use for whatever reason.

The notes may assist incumbents, church officers and church bell ringers; they do not intend to provide comprehensive information about health and safety or risk assessments generally.

More information may be found on the CCCBR website:

cccbr.org.uk/resources/stewardship-and-management - on the Tower Operation tab.

Although this document may look long, the time taken to make the checks will not be time-consuming if the bells and associated installation were maintained in good condition and rung frequently (a few times a month) until ringing stopped. The longer ago that ringing was stopped and any maintenance was done, then the more thorough the checks required. A few key items may have occurred regardless of when the bells were last rung.

A risk assessment of the tower and bells will form part of the risk assessment for the whole church.

- The risk assessment will be completed by the Responsible Person appointed by the Incumbent and it is advised that one or more experienced ringers assist with this.
- The whole risk assessment should be recorded, dated and reported to the churchwarden, incumbent or PCC.
- Remedial work should be undertaken by competent people.
- Ringers are advised to check that the actions are completed before ringing commences.

The CCCBR *Manual of Belfry Maintenance* may be used as an aide memoire for undertaking basic maintenance checks.

Note that any work to bells, other than what is deemed to be minor maintenance should be done with the correct permissions and faculties in place, and in accordance with all relevant health and safety policies. Advice on faculties is on the CCCBR website identified above.

Few churches were designed or built to comply with current legislation and many are extremely historic and vulnerable structures.

Ringers may be in churches at times when the building is otherwise unoccupied, and also in parts of the building that are separate and less accessible from the rest of the building.

Each church and tower has to considered carefully and have in place specific procedures and policies that are suitable.

Most towers with rings of bells are within the jurisdiction of the Church of England. These notes focus on these but the issues are likely to apply to bells in towers owned by other organisations, in churches of other denominations, and also churches elsewhere in the world.

Local legislation and circumstances should always be taken into account.

### **Responsibility for Safety**

It is important to note that the responsibility for health and safety and risk assessment in a church building rests with the church authorities.

It is best that one or more experienced ringers work together with the church authorities to prepare the risk assessment and that it is dated.

Normally, the Incumbent should have appointed a Responsible Person for health and safety matters. Ringers need to use their experience and knowledge of ringing and bell installations to assist the church authorities in carrying out and implementing risk assessments within the tower.

### **Issues to Consider**

This document is in two parts:

- The first part covers some issues that should be considered when carrying out a risk assessment prior to conducting checks of the conditions of the bells and their installation in a tower after period of non-use (typically 3 months or more).
  This is not intended to be an exhaustive list, nor is it suitable or relevant for every tower; it is intended as a guide for those involved to consider the hazards that may be present in their own tower.
- **The second part** is a brief list of things that should be checked as part of a pre-ringing inspection.

Again, it is not an exhaustive list but covers the main points.

Each installation may have its own idiosyncrasies that require specific consideration and attention.

The church may have its own Risk assessment recording sheets; a tabular format is recommended. An example is available in the appendix and separately from this document.

Central Council of Church Bell Ringers Stewardship & Management Workgroup November 2020

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# **Tower and Bells Risk Assessment**

## After an Extended Period of being Out of Use

Name of Tower	
Date of Assessment	
Risk Assessment carried out by:	
Ringer	
Church Authority	
Church Authority/Ringer	

Part 1 - Points to Consider	<b>Issue &amp; Mitigation</b> : bv Whom. bv When	Completed: by Whom, Date
Prior to conducting a risk assessment on the condition of a tower and bell installation after a period of their non-use		Furner Actions: by whom, when
1.1 Risk Assessment Considerations		
Who will be conducting the pre-return inspection and risk assessment?		

Part 1 - Points to Consider Prior to conducting a risk assessment on the condition of a tower and bell installation after a period of their non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
Tower and bell inspections should be conducted by at least two people, one of whom should normally be the person responsible for health and safety at the church and is therefore familiar with the environment and the likely hazards. One should be an experienced ringer and therefore be able to advise on ringing related matters.		
Where such people are unavailable, then suitably experienced person in such environments and likely hazards, and who is acceptable to the church, should complete the risk assessment. They should be accustomed to and capable of moving around the tower and bell chamber.		
The person responsible for the church health and safety will not necessarily be the person best qualified to carry out the risk assessment of the tower and bell installation. They should work together either in the tower or afterwards to report and record the findings.		
If in any doubt about the knowledge required, contact your local ringers' guild or association, or a professional bell hanger or contact the Stewardship and Management Workgroup at smlnf@cccbr.org.uk for advice		
1.2 Access to the Tower		
Permission must be granted by the incumbent and/or church wardens prior to the checks		
Can the church be entered safely?		
Has the building been checked and cleaned in accordance with current Covid-19 cleaning procedures, as applicable?		
Will other users be in the building while the checks of tower and bells are carried out?		
Who will unlock the church and how will social distance and hygiene be maintained?		

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Part 1 - Points to Consider Prior to conducting a risk assessment on the condition of a tower and bell installation after a period of their non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
Can the tower be inspected safely?		
Are ladders, trapdoors and walkways in good condition and safe to use? (NB Working at height regulations)		
Have the lights and emergency lighting been checked recently?		
Two people should normally be present when working in a tower or bell chamber. Can social distance and hygiene be maintained, if required?		
If a lone person is to carry out the inspection, how will their safety be assured? e.g. by a second person remaining as close as possible and within hearing distance		
Who and how would anyone be alerted if there is an accident?		
What would the rescue plan be?		
Consider having an assistant on the phone throughout the inspection, they can take notes of the findings and respond if there is an accident		
What general hazards may be present?		
Could an unauthorised person have been into the tower and moved things, done damage or used anything (e.g. Ellacombe chiming apparatus)?		
Have bees, wasps, birds, rodents or other animals got in and caused a hazard (physical or biological)?		
Is there any sign of water ingress, which may have caused floors to become slippery, caused an electrical hazard or even have caused structural damage?		
1.3 The Ringing Room		
How were the bells left?		

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Part 1 - Points to Consider Prior to conducting a risk assessment on the condition of a tower and bell installation after a period of their non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
Is there ANY possibility that any of the bells are up? If so, consider how you can check if it is safe to lower them. (See 1.4 Bell Chamber)		
Was there any necessary maintenance or repair work pending when the bells were last used, which has not yet been done?		
Are the ropes on a spider, on hooks or hanging loose?		
What other hazards may be present?		
Are there any trip hazards? e.g. ringing boxes or loose ropes, carpet edges, etc.		
1.4 Bell Chamber		
Is it safe to enter the bell chamber to carry out a complete inspection?		
Are ALL the bells down?		
If not, can a visual inspection be carried out to ascertain that it is safe to lower them?		
Are the clock chimes pulled off?		
Could animal activity have created a hazard? e.g. sticks pushed through netting and causing a trip hazard on the frame or obstruction to a moving bell		
How accessible are the bells?		
Are ladders and platforms in good condition? Consider working at height regulations		
1.5 Intermediate Room(s)		

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Part 1 - Points to Consider Prior to conducting a risk assessment on the condition of a tower and bell installation after a period of their non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
Are there any intermediate room(s) that the ropes pass through?		
Is there any evidence of bird, insect, rodent or water ingress?		
Are there any items obstructing the path of the ropes?		

Part 2 - Points to Check Prior to ringing bells after an extended period of non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
2.1 Access to the Tower and General Considerations		
Do the lights and emergency lighting function correctly?		
Is the electrical installation as it should be?		
Has the circuit breaker tripped? If so, why?		
Are steps and ladders clean, undamaged and secure?		
Are doors and trapdoors safe and secure?		
Do doors and trapdoors move as easily as they should?		
Do latches function correctly? (Especially on trapdoors)		
Are handrails and balustrades secure and undamaged?		
Are there any signs of unauthorised access?		
If so double check EVERYTHING and make no assumptions		
Are there signs of animal activity, such as bees, wasps, birds or other animals which may have got in and caused a hazard (physical or biological)? e.g. sticks pushed through louvres by birds and causing a trip hazard on the frame or obstruction to a moving bell		
Are there signs of water ingress, which may have caused floors to become slippery, caused an electrical hazard or even have caused structural damage?		
2.2 The Ringing Room		
Is there ANY possibility that any of the bells are up?		

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Part 2 - Points to Check Prior to ringing bells after an extended period of non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
If so, consider how you can check if it is safe to lower them. (See 2.4 Bell Chamber)		
Are the clock chimes pulled off or not?		
Does the clock chime mechanism appear to be working correctly at this level?		
Visually inspect ropes for rodent damage and other problems		
Are the Ellacombe hammers released?		
Was there any necessary maintenance or repair work pending when the lockdown began, which has not been done yet?		
2.3 The Clock Room		
Has the clock been would?		
If the clock has not been wound, it may have run down and the weights bottomed out. Before and during the first winding, the wire ropes should be checked to ensure		
Is there anything in the clock room obstructing the passage of the bell ropes? Especially if ropes pass through the clock or clock case		
Visually inspect ropes for damage		
Does the chiming mechanism appear to be in order at this level? i.e. no stray or broken hammer wires which could indicate a hammer not pulled clear of a bell		
Do any guiding pulleys run freely?		
Do rope guides and slap boards appear to be in order?		

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Part 2 - Points to Check Prior to ringing bells after an extended period of non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
2.4 Bell Chamber		
Are ALL the bells down?		
If not, can a visual inspection be safely carried out to ascertain that it is safe to lower them?		
Is there anything inside any raised bell? e.g. rainwater		
Is there anything in or near the pit or frame which might obstruct the bell in its movement?		
Are any clock or Ellacombe hammers clear of the path of each bell and its fittings?		
Are the ropes sufficiently sound, especially at the garter hole, and attached securely to the wheel spokes		
If any of the bells are up, lower them with caution in all cases before proceeding to the rest of the inspection		
Is the installation free of any debris that may impede the movement of the bells?		
Check for fallen masonry or woodwork, fallen sound control materials and debris brought or pushed in by birds or other animals. e.g. nesting material.		
Are any sound control mechanisms in good order and undamaged?		
Are any sensors and associated cables, etc. secure and undamaged?		
Is the frame bonded to the lightning conductor? Check for loose connections or damaged/missing tapes		
Has any work been done in the tower since last ringing?		

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Part 2 - Points to Check Prior to ringing bells after an extended period of non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
Check that work has not placed or fitted anything in the path of any bell, stay or rope. e.g. phone mast cables running through the spokes of a bell wheel (yes, it has happened!)		
2.5 Bells		
Are all the stays present and undamaged?		
Are there any cracks where each stay meets the headstock (and/or U-bolt where present)?		
Do Hastings stay dinglers move freely and will they engage along the metal quadrants?		
Do the sliders move freely?		
Do all ground pulleys run freely?		
Are all component parts of every wheel intact - spokes, shrouding, soles, halving bolts, etc.		
Are wheels and stays secure on the headstocks? During hot weather, timber components will shrink and may become loose (stays especially)		
<b>Note</b> : When checking tightness of bolts with a spanner <u>always test by loosening</u> the nut, then re-tighten if necessary. That way you won't strip threads or over tighten anything.		
Are the clappers secure? Particularly on bells with timber headstocks.		
Are the gudgeons or headstock bolts damaged or loose?		

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Part 2 - Points to Check Prior to ringing bells after an extended period of non-use	<b>Issue &amp; Mitigation</b> : by Whom, by When	<b>Completed</b> : by Whom, Date <b>Further Actions</b> : by Whom, When
Are all clock hammers pulled well clear of the bell and its fittings? With the clock hammers released (and wearing ear protection) check that the hammers are just clear of the bell and not resting on it. A 6 to 12mm (1/4 to 1/2") gap is usual		
Are there any undue creaks or scraping noises when each bell is swung gently?		
Does each bell swing for a while after being given a push? If swinging stops very quickly the bearings may need attention (but check again for other obstructions)		
Check that plain bearings are well oiled. Do not attempt to grease or oil ball race bearings		
Are the frame tie rods tight (in wooden frames only)? Dry weather may have caused tie rods to become loose. Check that nuts are not at the bottom of the thread before tightening them and, if they are, insert washers to act as spacers		
Are the ropes free of wear or damage? Check especially at the garter hole and above double ground pulleys		
Are any garter sleeves and bobbins secure and in place?		
Are ropes securely attached to upright spokes and ends tucked in?		
If all seems sound, raise each bell individually		
Check that it feels OK and that no undue noises are heard		