

ASSOCIATION CROQUET REFEREEING MANUAL

Effective Date:
12 Oct 2014
Version 2.5



ACA Association Croquet Refereeing Manual

Overview

This publication is the ACA Policy on Refereeing, which is to be followed by all AC Referees and Umpires.

New versions, reflecting ACA policy changes, or new refereeing practices will be issued as required showing Version number, date and Revision Table.

State Directors of Refereeing are responsible for the implementation of the ACA Refereeing System in their State and for ensuring that officials have access to copies of this manual as required and through the ACA web-site.

Compliance:

- ACA Referee Regulations
- ACA Accreditation & Re-accreditation Policy
- ACA Tournament Regulations
- Laws of Association Croquet, 6th Edition
- Official Rulings on the Laws of Croquet and Commentary on the Laws
- NRC Approved Training documentation

Responsibilities:

Amendments in Refereeing procedure and technique	National Director Refereeing (NDR)
Policy Issues or Regulation interpretations	ACA Secretary
Amendments to Laws and Law interpretations	ILC via ACA Laws Committee Chairman

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Definitions and Revisions

Definitions	ACA	Australian Croquet Association
	WCF	World Croquet Federation
	NDR	National Director of Refereeing
	SDR	State Director of Referees
	NRC	National Refereeing Committee
	NTC	National Technical Panel
	ILC	International Laws Committee
	ORLC	Official Rulings on the Laws of Croquet
Revisions	01.06.08 Version 1	Original
	01.04.13 Version 2	Complete re-write to include all relevant matters
	16.06.13 Version 2.1	Remove ACA Logo from individual pages, reformat.
	Oct.2013 Version 2.2	Correct minor punctuation errors, amendments to pages 13, 25, 40, 43 and contents – see change control document
	Dec 2013 Version 2.3	Add to Appendix 1 Add R1 (d) Qualified Umpire
	Aug 2014 Version 2.4	Page 6 Remove printed extract from T.Reg. Now given generic reference only.
	Oct 2014 Version 2.5	Correct error in Appendix 4 WCF Impasse reg. 2.2.1 - delete reference to 2.2.3 insert 2.2.4

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Referee/Umpire Training

Candidates wanting to attempt the Umpires and/or Referees exam should first contact their local State Director of Referees who will guide them through the accreditation programme. The next step is to undertake the free Online Officiator Course through the Australian Sports Commission (ausport.gov.au) via the ASC learning portal for courses. The candidate should also acquire the following:

Resource material:

Australian Association Croquet Laws Book
ACA Regulations for Association Croquet Tournaments (ACA web-site)
Copy or access to the ORLC
ACA Association Croquet Referee/Umpire Tutorials & Manual
Hoop Setting Programme Manual
ACA Wedge Gauge
6 markers [plastic golf markers only – do not use coins or any metal objects as these have been known to cause injuries to mowing equipment, grounds men and bystanders]

Suggested practice:

Wiring:

To be a competent Umpire/Referee you *are required* to be able to perform a wiring test at "half-ball height". This means you are to:

- be able to lie down on the grass; or
- use one of the 'mirror tests', in order to position your eye at 'half-ball height'
- no other method is acceptable.

Ball Marking:

In a critical position is to be done by the cross triangulation method using a minimum of 4 markers, using the method in the chart outlined in this manual. However, ball marking in a non-critical position is at the discretion of the Referee.

Shot Watching:

Potential crushes, double taps, and roquets of a 'ball in a hoop' are to be watched from a position "where you *can* see" **not** from a position "where you *cannot* see". **This means that shots must be watched from very close proximity** e.g. just above the action, *consistent with your safety* and not from yards away.

Regulations:

Referee appointments and authority levels are subject to the ACA Regulations and can be found on line in the ACA Handbook. The Regulations appertaining to Refereeing must be studied.

Referee Equipment

Hoop Gauge: This tool, while not mentioned in the Laws, is the ACA accepted device to be used for measuring the inside width of hoops. Every Tournament Notice (ACA Regulation 15.6) is required to specify the inside measurement for hoops. This is to be specified by the body responsible for the event other than ACA events.

Please refer to the current ACA Tournament Regulations:

ACA and State Events:

EVENTS

15 GENERAL

6.HOOPS

WCF Events and most International events almost invariably specify “ball plus 1/32 inch”. Though on occasion this is reduced to 1/64 inch. Gauges that test the distance between hoop uprights are not suitable for this purpose. Official feeler gauge are used to set hoops to the required WCF and International event tolerances. (Please refer to the Hoop Setting Guide as approved by the NTP and NRC for referee/umpire training purposes.)

There are two main types of ACA accepted gauge the Go-no-go gauge ‘09 and the Wedge Gauge (printed with either the ACA or CA logo); both of which must be placed on a half ball height block inserted within the jaws of the hoop being tested. Refer to the section in this document on Hoop Setting and Hoop Checking.

Feeler gauges are strips of 1/16, 1/32, 1/64 inch thick plastic or metal. Hoops are measured using the largest ball of the set/or sets in use on the lawn plus the necessary feeler gauge. (Please refer to the Hoop Setting Guide as approved by the NTP and NRC for referee/umpire training purposes.)

All Referees/Umpires need to carry plastic ball markers (min 6) with them in an easily accessible place. Metal markers or coins are **not** to be used as if they are left on the lawn they may interfere with play and can damage mower blades.

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What to carry in your Referee Satchel or Waist Bag:

- Law Book (required) and the ORLC (optional but recommended)
- Hoop gauge and half ball height block
- Reel of cotton or similar*
- 6 inch steel rule*
- Notebook and pen/pencil
- Container of extra plastic markers
- A coin for tossing purposes

**Mechanical Testing for hoop run with cotton or straight edge is to be a “last resort/confirmation”. Testing is preferred by eye alone.*

The Venue Management will provide a Referee with:

- A chair and a shady and/or sheltered position
- Electronic timer for each game, Referees on Request are not obliged to be timekeepers. *(Note: Tournament Regulation 16.3 USING TIME LIMITS. When a time limit has been imposed on a game, the players should arrange for an independent person or, failing that, one of themselves to be responsible for announcing audibly that the time limit has been reached.)*
- Tape measure to check height of hoops, peg and corner pegs
- Large set square to assist in determining whether a player has a 3(4) ball group when a ball is roqueted within the yard-line or off the court.
- Spare balls, to be used in wiring tests
- Mirror, to be used in wiring tests
- Hoop setting/adjusting equipment including: rubber mallet, spirit level, hoop brackets (upper & lower tolerance brackets) long blade or screwdriver and packing material i.e. sphagnum moss
- A small supply of earth to repair damage to the court
- A small supply of grass clippings to aid setting balls together (this must be removed after use!)

How to Mark a Ball

In a critical position:

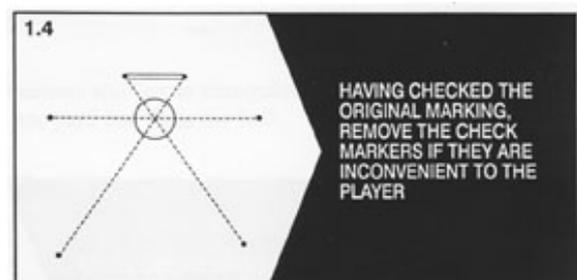
There is no difference between marking a ball from a doubled banked game that may cause interference and marking a ball that is in a critical position when a referee is requested to watch or adjudicate upon it.

Ball marking is to be done in a way that does not intrude or distract the striker when playing a stroke.

- 1 The standard technique is to use two plastic golf markers and "cross triangulate" using the hoop legs. See illustration 1.1 Markers are to be at least one yard from the ball.



- 2 In addition to method 1 it is recommended that two other markers be used to form a line bisecting the ball.
- 3 In addition to method 2 it may on occasions be useful to check the accuracy of method 2 settings by placing two "check markers" behind the hoop to assist in assuring the accuracy of the technique. These markers may be removed, as in method 4, if necessary after checking is complete.

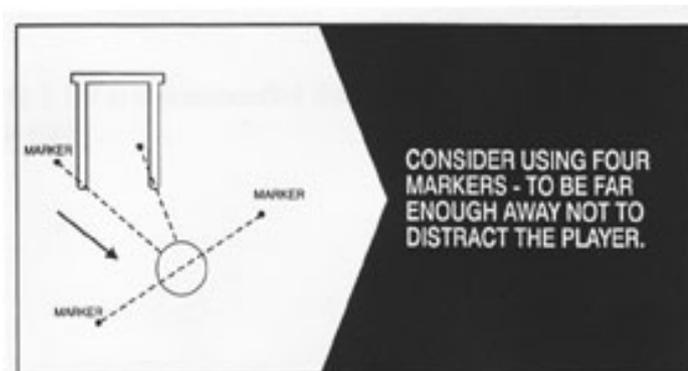


NOTE: Care must be taken not to place markers where they may inconvenience the player.

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- 4 Alternatively the markers shown below may be used instead, if method 1 causes striker distraction. This same technique may be used if the ball is in a position near a hoop and the striker is attempting to hit away from the Hoop.



NEAR A HOOP – Critical position during a hampered stroke hitting away from the hoop.

Critical balls should not be lifted from a double-banked game simply to allow another player to ‘play through’.

Refer to part 4 of the Law Book, B Special Laws:

52 Double –Banked Games

c. MARKING BALLS If a ball from another game might interfere with a player’s next stroke:

- 1. If it is not in a critical position, the permission of the players of the other game should be obtained so that it may be temporarily removed after its position has been marked;*
- 2. If it is in a critical position, the player should normally interrupt his turn until it has been removed in the normal course of play in the other game.*

Please also refer to the article by Ian Bond available on the Oxford Croquet web-site: <http://www.oxfordcroquet.com/ref/rlawn/index.asp> for an excellent alternate method of marking balls often used by referees in other parts of the world.

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In non-critical position:

The word “should” within Law 52(c) is to be read in the imperative, not advisory sense. This applies to both players and officials who wish to remove balls. It is important to bear in mind that a “critical position” not only applies to a ball in or near a hoop or peg, but also to a ball in open court which could be in a potentially wired position. Officials are to be expedient in marking non-critical balls to avoid wasting time.

Marking the Target Ball

When a striker is attempting to strike a *hampered* ball intending to roquet a target ball, **both** balls are to be marked. Reason: if a fault is committed both balls may be required to be replaced upon request by the adversary - Law 28(b)(2) and in accordance with Law 22(d) but see Law 37(h) for handicap play.

Marking a ball after a Fault

Example: a hampered stroke fault is committed during which both the striker and the target ball are moved. The previous positions of both balls will be known because the referee has marked them. The adversary is now entitled to require them to "be rectified or remain" Law 28 (b)(2).

The adversary (the new striker) is entitled to require the balls be marked at the position they currently occupy after the fault, so that the balls can be **provisionally replaced** so the opponent may see their exact positions before making a decision. The balls may then be then be returned to the "remain" position if required.

This right is not specified in the Laws but it is the intention of the ILC and is common practice internationally, and is the subject of ORLC 28.19.2

The repositioning of the balls may be repeated subject to commonsense and Law 49, Expedition in play.

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Testing if a Hoop Has Been Made

Visual Test

Always conduct a visual test first, as quickly as possible. Any visual test is to be conducted from the **side**, to determine if the ball has passed the plane of the "playing side", this is sufficient to make a decision.

Do not conduct from above, as the top (or crown) of the hoop is often wider than the legs.

Mechanical Test

If further evidence is needed use a piece of fine string, cotton or fishing line etc., stretched between the legs to assist in determining the plane. Conduct this test raising the cotton from below the ball or lowering the cotton from above, depending on the most convenient personal method for the official.

Although the back of the hoop gauge has historically been used they **should not be used** for this purpose, as they are not sufficient in length to comfortably ensure they reaching across both hoop uprights, are not necessarily straight and are not designed for this purpose. **A six-inch metal rule is a good alternative.**

The ACA policy is that a visual test is required and a decision reached before string or straight edge or other physical straight edges are employed to assist in confirming the visual decision.

The decision is therefore made by the following test methods:

- a) visual test alone, or
- b) visual as well as a mechanical test for confirmation. A mechanical test is performed at the discretion of the referee. This test is not mandatory and cannot be required by a player who might appeal against the visual test and subsequent decision of a referee.

Do not contaminate the evidence:

The referee conducting the test is not to touch the hoop with their hands at any time during the test as such an action would contaminate the evidence and render the test invalid.

Safety Warning:

The ACA discourages the practice of carrying metal or other sharp object in pockets, as they could prove dangerous if the Referee/Umpire slips or falls in the performance of their duties.

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Testing Whether A Hoop Can Be Made

This test is usually performed when the roqueted ball is rushed into the next hoop in order and the striker asks the referee the question "when my striker ball is placed in contact with the roqueted ball, has it begun to run the hoop"?

Players ought to be strongly discouraged from attempting to place the striker's ball in contact with the roqueted ball before the latter has been checked and its position determined (and perhaps marked by the official)

The question **ought** to be asked before the striker's ball is actually placed, because during the placing process, the striker's ball may actually move the roqueted ball. The judgment can only be made **where it is** when the official arrives, **not** where it might have been.

Testing of the position of the roqueted ball is to be conducted **before** the striker's ball is placed by:

- visual test alone, or
- visual test plus a string test for confirmation. However a string test is of dubious value and its use is discouraged

If the striker has actually, mistakenly, placed the striker's ball, still conduct the test as above – make the judgment based only on where it actually is.

If the striker moves the striker's ball to a slightly different position, it is to be **tested again** to ensure that it has not commenced to run the hoop.

Under no circumstances is the "old test" procedure to be used of placing the striker's ball, then removing the roqueted ball before testing the position of the striker's ball.

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Border Ball – In or Out?

This is a most unsatisfactory situation as none of the tests are completely accurate. There are numerous types of boundaries such as semi-permanent: chalk paint or dye-lines, temporary borders such as string or cord and even permanent borders made of metal or plastic strips.

Paint Lines

Semi-permanent short-life lines such as these, while they have the problem of overlapping, are at least quite safe. The inside of the newest, hopefully most inward line is to be used. If the lines are ambiguous and sometimes certain sections are confusing, the referee ought to walk the players around the lines and obtain agreement what constitutes the line for the match.

When a ball is on or close to the border, the first test is to be a visual sighting from above, firstly by standing inside, then outside the line.

String Lines

If string lines are in use a visual decision can more easily be made but there is always the issue of players tripping, causing them to become dislodged and uneven if they are not secured along the length of the boundary.

Permanent boundary lines

Whilst these may at first appear a quick-fix solution and are certainly easier to judge the length of the boundary they do become over grown and pull awkwardly down into the surrounding soil.

Many clubs have commonly used a **border/boundary box**; approximately 600 mm [24 inches] long with a cut-out to align the edges of the boundary whilst attempting not to disturb the ball in question. However, it is very easy to contaminate the evidence with these pieces of equipment and they do not strictly comply with the laws, which state: -

“A ball leaves the court as soon as any part of it would touch a straight edge raised vertically from the boundary.”

The "two mallet head" test is also highly inaccurate and is not be used.

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Replacement of a yard-line ball when a cannon might result

(Extract from the Trans -Tasman Notes for Referees by Graeme Roberts)

If red is on the yard-line and blue is roqueted to a spot almost behind it and within the yard-line area, how do you judge whether the player will have a three-ball group when blue is replaced on the yard-line? The method you should use if this arises is to place a test ball (very carefully) in contact with red on the yard-line on the side nearer to blue. The large setsquare available at each club should be placed with its short edge along the boundary behind the balls so that it projects into the court at a safe distance to the side of the balls (see Figure 1). The setsquare should then be moved very carefully along the boundary towards the balls until it becomes clear which ball - the roqueted ball (blue) or the test ball - it would touch first. If it would touch the test ball first there would be a 3-ball group, while if it would touch the roqueted ball first there would not be a 3-ball group. The setsquare should never have to be brought so close to the balls that there is any risk of touching them.

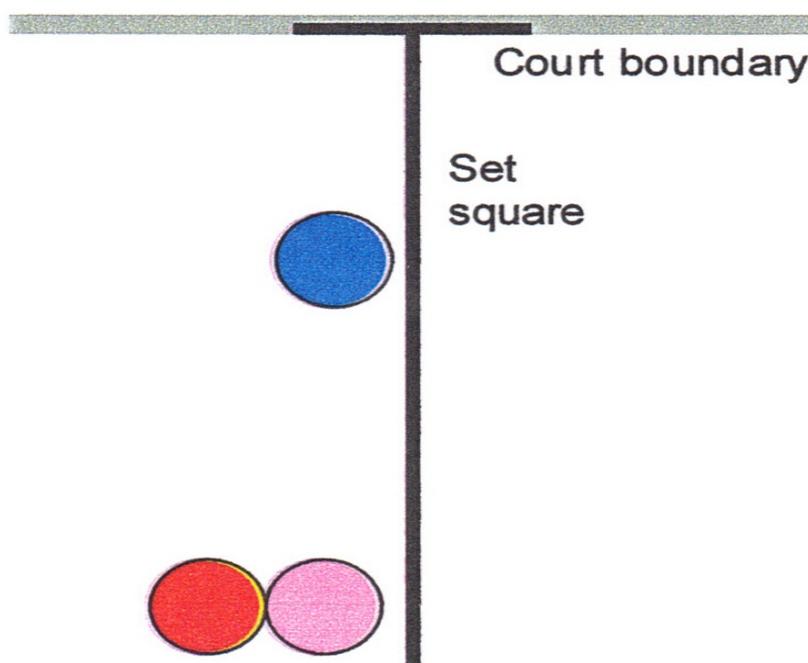


Figure 1

In Figure 1, the setsquare's edge is closer to blue than it is to the test ball. That means that the player would not have a cannon were the balls to be in these positions.

If a ball goes off the court and you need to know whether it will be replaced in contact with a yard-line ball, it should be placed temporarily a few centimeters directly infield from the point where it went off the court. (This position has to be judged by eye.)

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A test ball should be placed in contact with it, and a similar test should be done to the one described above (see Figure 1). In Figure 2, the setsquare's edge is closer to the test ball than it is to Red. The player would have a cannon in this situation.

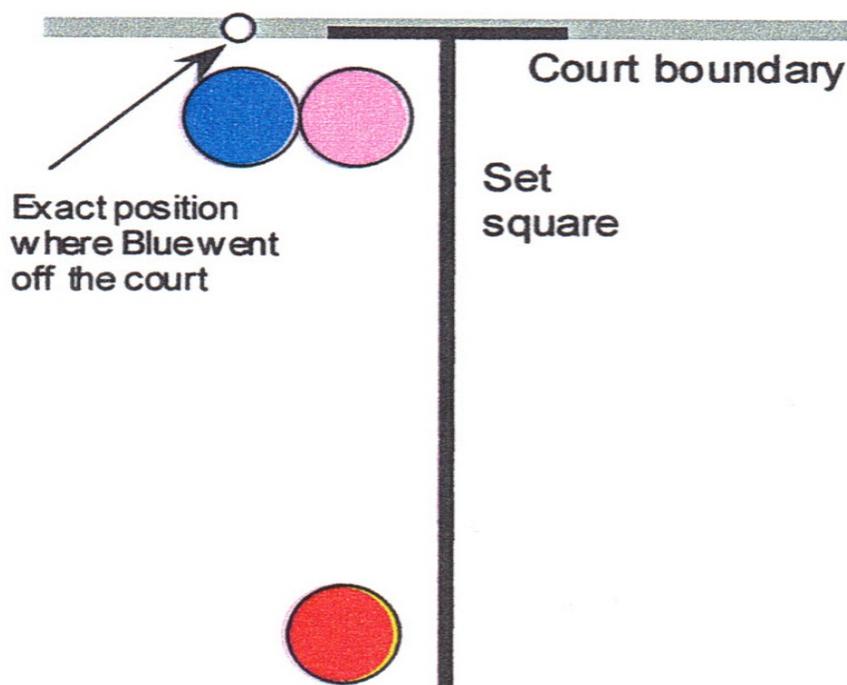


Figure 2

Replacement of a ball on the yard-line: obeying Law 12 (e)

There have occasionally been complaints about players who do not respect Law 12 (e) when they replace balls on the yard-line. If a player becomes concerned that the opponent is not observing the requirements of Law 12 (e) and may as a consequence be gaining some advantage, the player should speak to the opponent. If this produces no improvement, or if the players disagree on the matter, then they are entitled to appeal to a referee. Should that occur during a match that you are refereeing, you should remind both players of the law and the reason for it, and request that they observe the law in any situation where the exact position of the replaced ball may be critical.

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Hoop Setting and Hoop Checking

- 1 **Setting:** The **initial layout** and ground setting of hoops at any venue for tournament play is the responsibility of the Tournament Manager who will agree technique, hole packing material (sphagnum moss, grass clippings, earth etc.) use of brackets, clamps and gauges as appropriate, with the Tournament Referee and his/her hoop-setting team if available and the venue grounds-men.
- 2 **Checking:** However immediately before and during a game it is the responsibility of the TR to adjust the firmness and ensure correct width setting of all hoops. The TR will most often delegate this responsibility to the assigned court referees.
- 3 **Width adjustment:** During game/match play it is the responsibility of the assigned referee to make any necessary adjustments to hoops settings. Often in major events there will be a team of hoop-setters appointed, **under the guidance and control of the TR**, who may be on hand to assist the assigned referee make adjustments both during a game and importantly after each game/match is complete in readiness for the next assigned game.

PLEASE REFER TO THE RECOMMENDED HOOP SETTING GUIDE FOR INSTRUCTION ON HOOP SETTING AND ADJUSTMENT

Hoop adjustment during game/match play should be made as quickly as possible in order to cause the least interruption or delay to both the game in progress and the overall tournament.

Minor adjustment has historically been made using a screwdriver or blade. This is NOT the best method for all soil conditions. With the introduction of quick and simple “push on” brackets it is no longer necessary to degrade the integrity of the hoop hole by loosening the ground within the hole in an attempt to hasten the process. Over the length of the tournament this is more likely to result in the need for re-allocation of the hoop and collapse of the integrity of the hoop hole requiring considerable packing to ensure firmness if it is not possible to re-site the hoop settings.

HOOP SETTING IS A SPECIALIZED AREA AND CRITICAL TO THE SMOOTH RUNNING OF ANY TOURNAMENT.

The specialized guide to hoop setting now forms part of the available training and re-accreditation paperwork available through the SDR's.

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Watching A Ball In A Hoop – Roquet Attempt

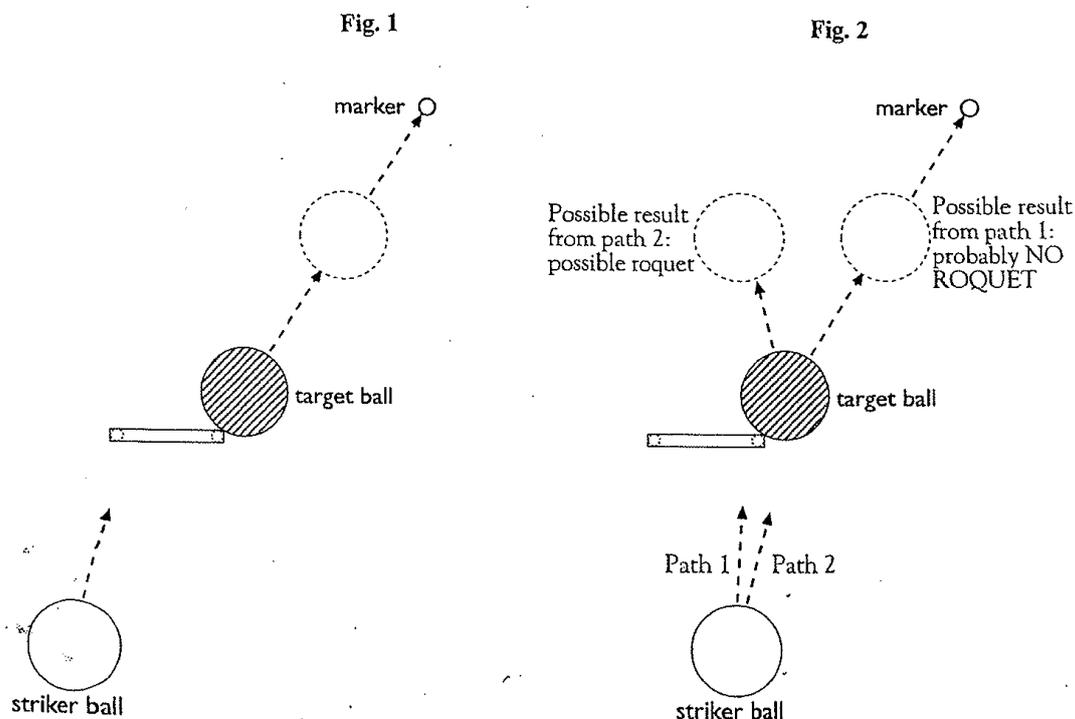
The referee [umpire] must stand close. The principle being "stand where you **can** see, not where you **cannot** see", but not so close that there is a safety risk.

Provided the striker is significantly further than a mallet swing away and safety is not a factor, the best place is directly above the hoop.

The use of a marker is a useful guide in making a decision. By placing a marker along the expected line of travel of the target ball, if the striker ball apparently only hits the leg, the target ball will theoretically travel along the dotted line.

This theory is valid as in Fig 1 but less reliable for Fig 2.

The use of a marker is a guide to decision making only, as a referee you take this plus what you see as evidence and then make a decision. The accompanying sound is also evidence but somewhat less reliable than the movement of the balls.



The "Double-tap" – Multiple contacts by ball and mallet

It is not the policy of this manual to repeat the Laws or the ORLC, but in this case this much-misunderstood interpretation is nicely explained in the ORLC and therefore justifies repeating.

Quote: ORLC 28.10 Law 28 (a) (7) (B) “in any other stroke, allows the mallet to contact the striker's ball more than once”

This is the "double-tap" fault, which has been married in the 6th Edition Amended January 2008 to the "retouching" fault. Note the exemptions provided by Law 28(d) for a roquet and pegging-out. Unless exempted, the fault is made if the subsequent contact is with any part of the mallet, not just the end-face.

The striker may cause the mallet to hit the striker's ball twice or more if another ball is nearby and a stroke is played along the line joining the centres of the two balls. If the striker follows through, a multiple impact is certain in a shot played firmly, if the separation is less than about 50 mm (5 cm or 2 inches) and may also occur (depending on the strength of the shot and the degree of follow through) if the separation is two or even three times as great. The likelihood of a multiple impact may be reduced if the striker stops the mallet on impact or plays at an angle to the line of centres, so that the striker's ball rebounds to the side. A multiple impact is a fault in a scatter shot (*continuation stroke*) or a dead-ball cannon.

Experiments with physical apparatus have shown that many, if not most, croquet strokes involve multiple contacts between mallet and ball that are not perceptible to unaided human observers. Such strokes are **not to** be declared to be faults (otherwise the game as we know it would be unplayable). However, it is correct to deduce that a close scatter shot is a fault under this or the previous clause if the striker ball moves a significant distance after a near full-on impact with the scattered ball.

The statement above "--- many, if not most, croquet strokes involve multiple contacts between mallet and ball are not perceptible to unaided human observers--"

See ORLC Section 17 Hoop and Roquet Situations for more on the subject of the “Ball Crush” and ‘Maintaining Contact’.

Double -taps [multiple contacts] that occur in close "dead ball" strokes.

Unless a referee possesses hearing well above the average, decisions need and can readily be made on the basis of the understanding of "ball mechanics" that is understanding how balls react to forces, actually simple physics. Despite the above it is quite easy to judge if a fault has occurred by observing where the balls finish after the stroke, however this is a skill that is in need of a little practice.

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Exercise:

Place several sets of two balls say 50 mm apart, have a competent player play a “stop rush” on each pair, firstly allowing the striker ball to only travel 50 mm or less: this will be clean.

Next pair - The striker ball travels say half as far as the hit ball. This will be a double-tap. Another pair: the striker ball to travel, say one quarter as far as the hit ball. This will be a double- tap.

Next pair - The striker ball to travel say one-eighth as far as the hit ball. This will possibly be a double-tap, but only experience and training of referees’ perceptions (aided by the carbon paper test) will determine this.

Only practice, and the use of the carbon paper test will convince the skeptic.

If a multiple noise occurs as a result of the stroke it might be a double-tap (then again it might not be). Sound is an unreliable indicator, unexplainable echoes sometimes occur. Train yourself to recognize a double-tap by the action (reaction) of the striker ball after it hits the target ball.

The decision is to be made on the basis of Law 48 (d) 4 and ORLC 48.7.

ACA POLICY:

In accordance with ACA Policy no decision is to be made other than on the ‘balance of probabilities’.

A fault is to be called if the referee thinks it more likely than not that a fault has been committed.

Law 28 (7)(A) – in a croquet stroke, or continuation stroke where the striker’s ball is touching another ball, allows the mallet to contact the striker balls **visibly** more than once; or

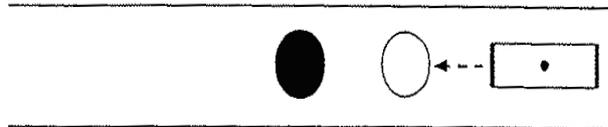
Law 28 (7)(C) – in any stroke allows the mallet to remain in contact with the striker’s ball for an **observable** period;

Law 48(d)(4) – a fault under Law 28 is to be declared if a person watching the stroke under Law 48(d)(2), or the striker, believes it **more likely than not** that the law was infringed.

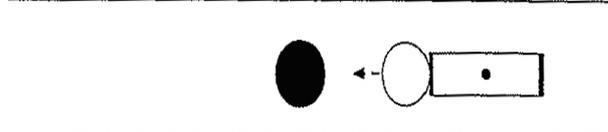
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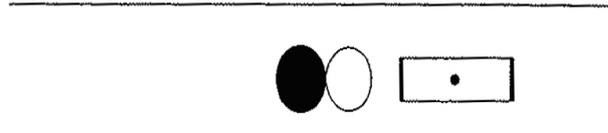
Double-tap: Striking the striker ball more than once.



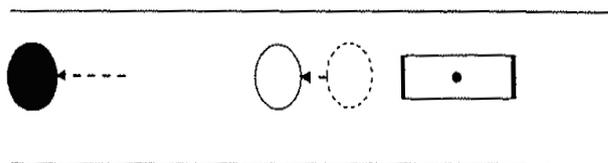
The mallet moves towards the white ball (striker's ball)



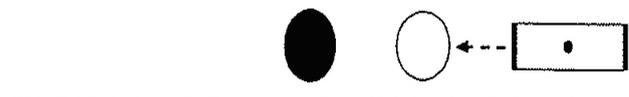
The mallet strikes the white ball.



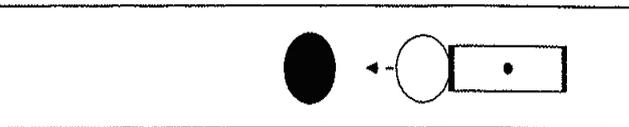
The white ball leaves the mallet face and hits the target (black ball)



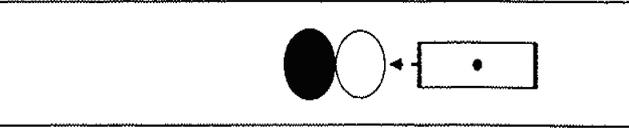
The black ball moves a considerable distance and the white ball moves only a short distance – this is a legal stroke



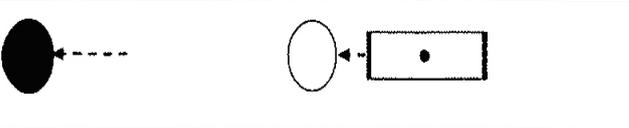
The mallet moves toward the white ball (striker's ball)



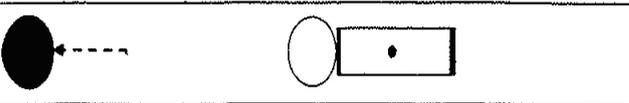
The mallet strikes the white ball



The white ball leaves the mallet face and hits the target ball – the mallet continues to move forward



The black ball moves a considerable distance, the white ball moves only a short distance – the mallet continues to move forward

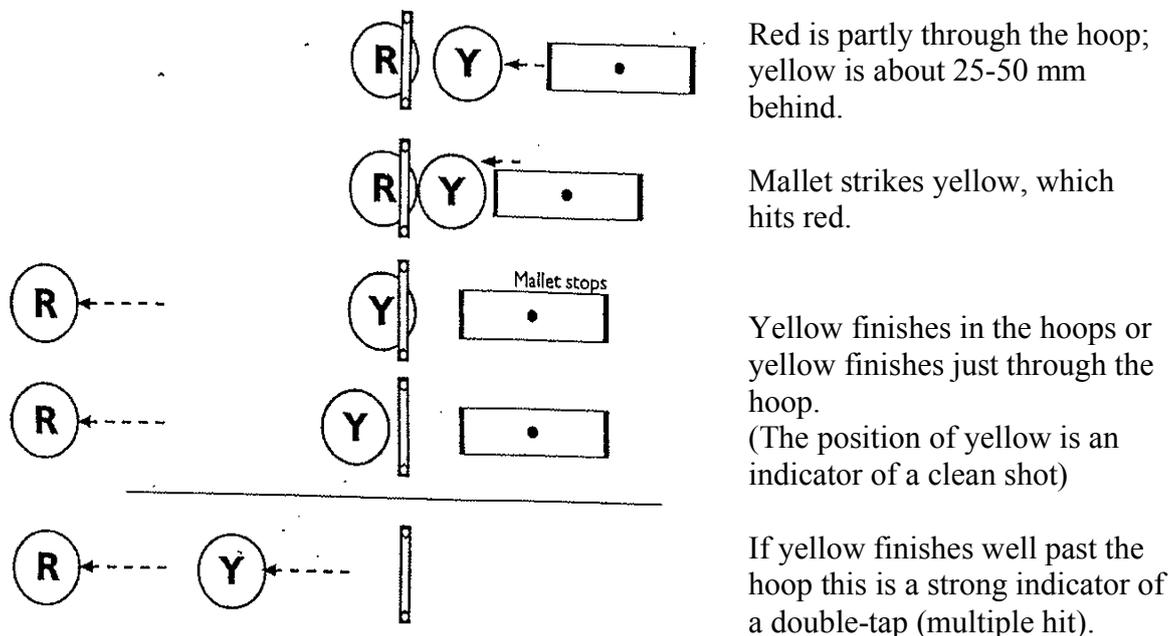


The mallet strikes the white ball a second time!

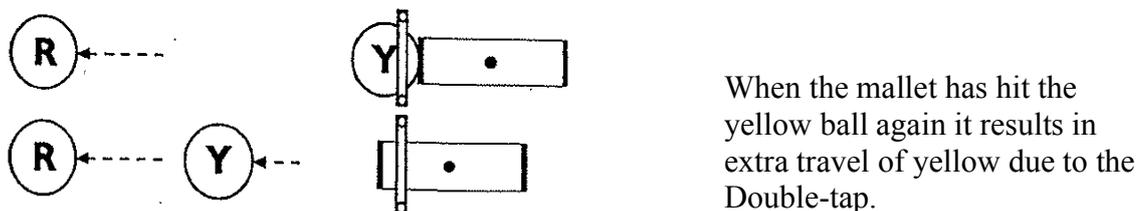


The White ball is moved a considerable distance, this is a fault Law 28(a)(7) AB
Not a fault under Law 28(d)

The Visual Double-tap Test



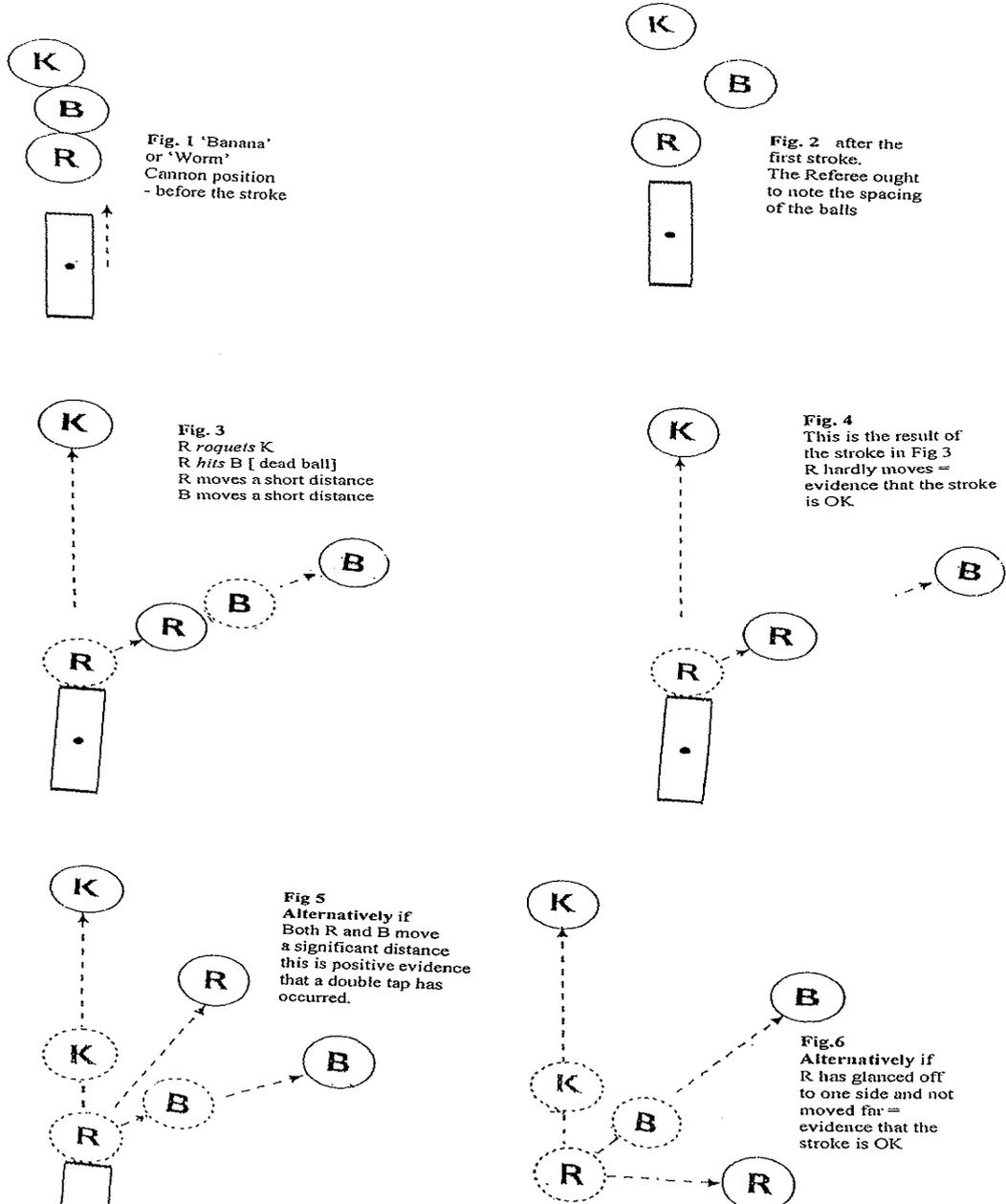
Visual Result of a multiple hit – Double-tap



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Double-tap After A Banana (or Worm) Cannon



Double-tap While Hoop Running

(Extract from G. Roberts' NZ paper 'Instructions to Referees')

When a hoop is run from close in, with a stroke, in which the mallet follows through, the ball will have escaped from the mallet, and be slightly ahead of it, by the time the ball first makes contact with the hoop-upright [wire]. What happens in two cases is: – when the ball hits the far wire first, and when it hits the near wire first. Assume in each case that the ball starts out close to one of the uprights 2 cm (20 mm or less) and that the mallet follows the ball into the hoop.

If the ball initially hits the far hoop upright and passes through the hoop without being significantly impeded (i.e. without bouncing across onto the near wire), then the shot is likely to be clean; the mallet will probably not catch up with the ball and there is unlikely to be either a -e tap [or a crush]. After passing through the hoop, the ball will leave the hoop to the left, if it started to the left of the line through the centre of the hoop. The angle at which it will emerge will be equal to or somewhat less than the angle at which it entered the hoop.

If the ball is significantly impeded by the hoop (i.e. if it is deflected so much by the far wire that it hits the near wire on its way out of the hoop), the mallet will be more likely to catch up with the ball, hitting it a second time, [and possibly crushing it also]. One possible effect of this second hit is that the ball will emerge from the hoop in a significantly different direction.

In most circumstances, a double-tap is more likely than a crush (and in many shots, a crush will only occur following a double-tap).

If the ball hits the near hoop upright, the shot may still be clean, but only if there is no more than a grazing impact. With a grazing impact, the ball will not be significantly impeded; it will be only slightly deflected and will emerge traveling in almost the same direction as when it entered the hoop. This will only be possible if the ball starts out not too far to the side of the line through the centre of the hoop. (With the narrow hoops being used in first class matches, a grazing impact of the type described will be possible only if the ball is almost straight in front of the hoop). If the ball starts out further to one side and hits the near wire with even a grazing impact, it will be deflected onto the far wire and will be likely to be delayed sufficiently in the hoop so that it will be struck a second time by the mallet.

Listening: A double-tap in attempted hoop run may be accompanied by a multiple noise that has been described as an "unclean sound". Ideally a clean hoop run from an angle should sound something like "click-click" = two sounds. The first "click" being the mallet striking the ball. The second "click" being the ball hitting the upright. If the sound is "click-grrrrungh-click" it may be a double-tap.

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Double-taps (General)

Referees must practice learning how to differentiate between clean and unclean sounds.

Example:

Have a competent player using a hammer stroke, strike four balls in succession – two clean and two as multiple taps with the trainees standing close **with their eyes closed**. After some practice a competent referee will be able to distinguish the difference.

Repeat the exercise by running a hoop, two as clean strokes and two as multiple unclean strokes.

It is **only** by experience that the skill of hearing will be developed, therefore, if a referee is serious about the art and science of refereeing the referee needs to undertake considerable practice in learning to distinguish these sounds, even so, the task is daunting, as hearing is an uneven attribute and skill amongst us all, therefore it is important to remember the passage from the previous section: The judgment is to be made in accordance with ACA Policy.

There are now excellent videos available showing both real-time and slow-motion clips, which make referee training accessible to everyone. Links to these videos can be found on all the major croquet websites; WCF, English CA, Oxford Croquet and on YouTube.

Examples by Bob Kroeger (excellent footage!)

Hoop/Roquet 1: <http://www.youtube.com/watch?v=CzPJfSQfQok>

Hoop/Roquet 2: <http://www.youtube.com/watch?v=gy0ulOPO740>

Indoor Hoop/Roquet: <http://www.youtube.com/watch?v=kr0niS-QGfg>

Two Slice/Brush Hoop Shots:

<http://www.youtube.com/watch?v=VkJR2GAoTH30>

Croquet Slice/Brush Shots:

<http://www.youtube.com/watch?v=jIhoff9g3F4>

Judging Croquet Shots:

<http://www.youtube.com/watch?v=KnjGo5WButk>

Jump Shots:

<http://www.youtube.com/watch?v=HLOHLVCNinc>

Hammer Shots:

<http://www.youtube.com/watch?v=jEc3HhhVupM>

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Double Taps - observations & empirical evidence: Making judgments about double-taps in both GC and AC is a daunting task.

Subjective knowledge: Too often a player or referee has a subjective view of what is a fault or not a fault based on how they intuitively feel about the subject. (e.g. double-taps). During training sessions, when a player is queried after playing a 'parting shot' on a dead ball, which looks like and sounds like a double-tap, the reply is often; "but I played away from it." The subjective assumption is that the act of 'playing away' absolves the player from fault.

Empirical evidence: When such shots are repeated, accumulated evidence may prove otherwise. Repeated testing (using the carbon paper test to assist in gathering evidence) and observation of the movement of balls can provide more positive evidence. Referees need to train themselves to be able to recognize most of the occurrences of a double-tap by ball movement alone. There is no need to rely on the sound, as this is unreliable. The double sound cannot be detected in a high percentage of instances.

Double-taps are the bane of referees in Golf Croquet as, compared to AC, there is a far higher number of double-tap opportunities and also inexperienced players. This does not rule out the misunderstandings that abound at the highest level in Association Croquet where the subjective understanding (or misunderstanding) is also rife.

Terminology: The incorrect use of terminology can cause troubles. A double-tap in a roquet is excused (allowed) by in a Roquet Law 28(d)(1)(a) and on other occasions under Law 28(d). However, when a player plays a continuation stroke on a dead ball (clearing or parting shot) and a double-tap occurs, this is a fault; Law 28(a)(7) (A)&(B). After a double-tap is called, the striker sometimes pleads; "it can't be a double-tap because it was a Roquet" – it was not a roquet because the hit ball was 'dead'. A ball is to be 'live' before a Roquet can occur.

The referee only has to be concerned when a player plays a relatively rare continuation stroke as a clearing shot (parting shot) on a dead ball which is a double-tap; Law 28(a)(8). A striker causes a roquet by striking the strikers ball which hits a live ball, but if in doing so causes a "double-tap" this is not a fault; {Law 28(d)(1) – **but note, if a roquet occurs on a ball, in or near a hoop, a double-tap fault can occur as a result of the striker ball coming back off a hoop leg, as this is not an exception under Law 28(d).**

Too many double-taps go unnoticed because the player does not realize that they are committing them. If and when a double-tap is called on a striker, they often cry, "But I hit away!" The effect of such "hitting away" is not very well understood.

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Referees are now beginning to understand the phenomenon of making the judgment when the ball is hit in a straight line, (as illustrated in both the ACA AC and GC Referees Manuals). The positive evidence of a straight-line double-tap is that the striker ball will travel further than it ought.

All referees are required to attend training and reaccreditation session where this will have been demonstrated. The phenomenon can be conclusively proven by the carbon paper test.

The factors to be taken into consideration are:

- Factor No 1: The separation distance of balls.
- Factor No 2: The angle of departure of the striker ball after they hit.
- Factor No 3: The distance the striker ball travels relative to the hit ball.
- Factor No 4: The way the stroke is played
- Factor No 5: The angle of the mallet handle to the vertical.

Factor No 1. The separation distance of balls, and Factor No 2. The angle of departure of the striker ball after they hit.

Note: examples assume that the hit ball is "dead."

The basic assumption is that if a striker ball, at a distance of say 12 mm (1/2 inch) from the hit ball, departs the hitting position at an angle of less than 45 deg. from straight on, it will be a double-tap. As the original distance between the striker ball and hit ball decrease (from 12 to one mm) the angle of safe departure will need to increase from 45 deg. to approximately 88 deg. As the distance between the striker ball and hit ball increases (from 12 to 100 mm) the angle of departure will decrease.

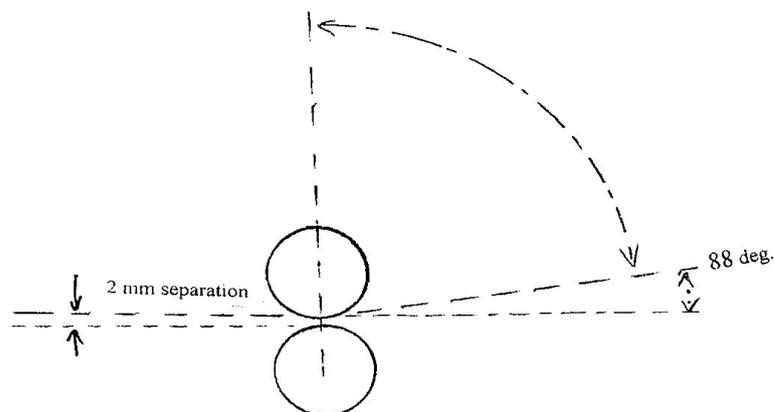
Example A:

At a distance of 2 mm from the hit ball, if the striker ball departs the hitting position at an angle of less than approximately 88 deg. from straight on, it will probably be a double tap. In other words; in order for it *not* to be a fault:

- It needs to exit the hitting (contacting) position almost at right angles. (90 degrees).
- It also means the striker ball ought to travel at least 20 to 30 times farther than the hit ball.

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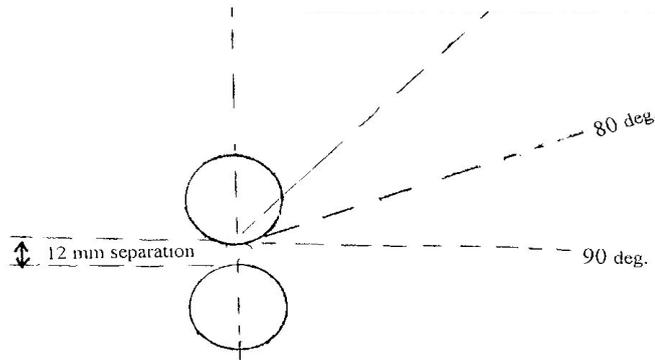
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Example B:

At a distance of **12 mm** (1/2 inch) from the hit ball, if the striker ball departs the hitting position at an angle of less than 80 deg. from straight on, it will probably be a double tap. In other words; in order for it *not* to be a fault:

- It needs to exit the hitting (contacting) position almost at right angles, (but not as severe as in Example A).
- It also means the striker ball ought to travel at least 10 to 20 times farther than the hit ball.



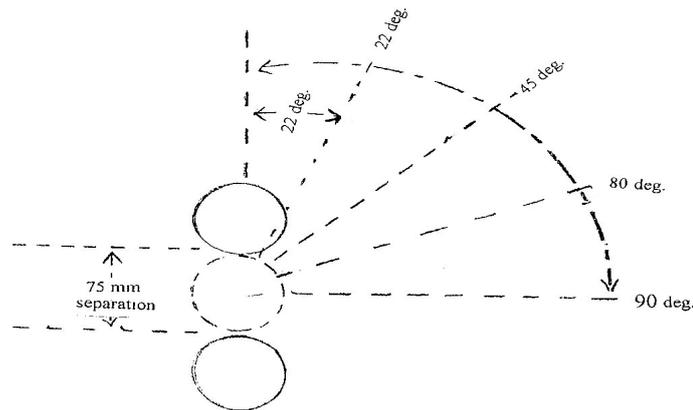
Example C:

At a distance of **75 mm** (3 inches) from the hit ball, if the striker ball departs the hitting position at an angle of less than 45 deg. from straight on, it will probably be a double tap. In other words; in order for it *not* to be a fault:

- It needs to exit the hitting (contacting) position almost along the 45 degree angle line or greater.
- It also means the striker ball ought to travel about only 10% of the distance as the hit ball.

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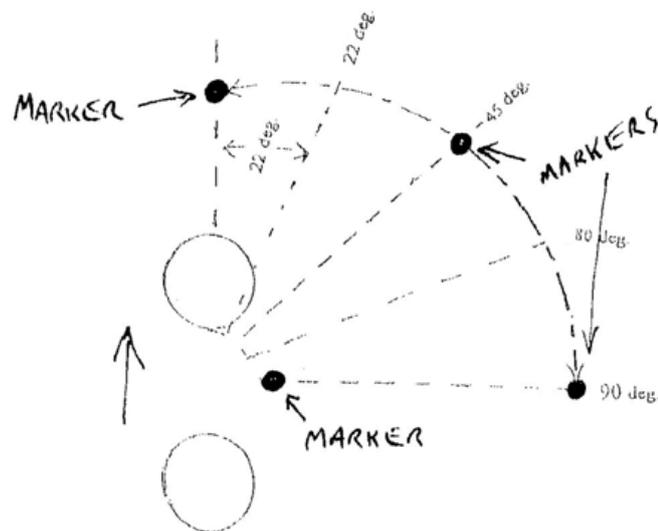


Observation: The direction of departure of the striker ball.

Considerable further experimentation and experience has been gained since the publication of the original draft in Nov 2005, using the carbon paper test to help confirm the validity of the system. However this method is imperfect but we are now able to view many slow motion (high speed) photographs and videos, which provide further proof.

Active referees need to practice and become familiar with visualizing angles of departure. This training can take the form of placing markers along the 90, 45 and 0 degree angle lines of the departure of the striker ball, in order to assist in the decision making process.

This method of aiding decision-making is similar to the method used to help determine if a roquet has been made on a ball in a hoop, which is resting on a leg.



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If the referee observes that the striker ball departs in the triangle made by the 45 and 90 degree angles, there is some indication that it is probably not a fault. If the striker ball departs in the triangle between 0 and 45 degrees this is an **indication** that it is a fault. The word "indication" is used deliberately, and further study and practice relative to the examples above (A, B & C).

Factor No 3. The distance the striker ball travels relative to the hit ball.

A further piece of evidence is the distance the striker ball travels after hitting the hit ball. If the striker's ball travels further than the hit ball this is a good indicator that a Double Tap has not occurred. If the striker ball travels less than the hit ball this is evidence that a Double Tap has occurred.

Factor No 4. The way the stroke is played.

The effect of the stroke action needs to be taken into consideration when making the judgment. A jab with no follow through will tend to skew the striker more towards the 90-degree angle compared to a stroke played with a full follow through. The full follow through will tend to propel the striker ball more towards the 45-degree angle of departure.

Factor No 5. The angle of the mallet handle to the vertical.

If the handle is tilted forward the possibility of a double tap is increased. However the striker's ball will have forward spin and will travel further, so the test using distances travelled becomes less useful.

How to make a judgment:

Before the shot occurs ask the striker what type of shot they intend to play.

1. Notice the separation distance between the balls.
2. Calculate (based on the separation distance) the expected safe angle of striker ball departure note what you think is the "safe non-double tap zone". (Use markers if necessary).

After the stroke

3. Note the distance the striker ball traveled compared to the hit ball.
4. Note if the striker plays the stroke with a jab or some follow through or a full follow through.
5. After the stroke is played, call "stop" to give yourself a few moments to replay all the evidence in your mind.
6. Announce your decision firmly and confidently (don't mumble or whisper) say: "Fault" or "OK- (or similar)" – do not ever just walk away. Remember the current ruling and ACA Decisions Policy. You need to always, no matter whatever the occasion, announce a decision audibly, on any refereeing matter.

Decision-making

The weight of evidence: ACA Policy - See Law 48 d 4, ORLC 48.7

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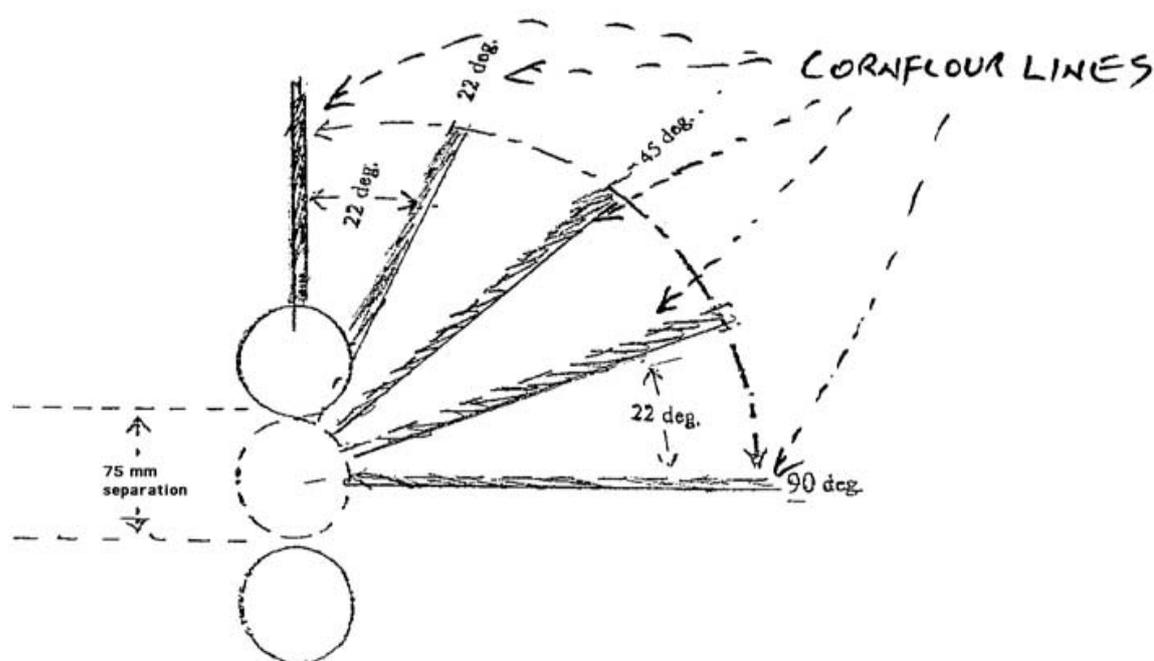
Cautionary Note: Disclaimer.

Because the player/s cannot appeal against your decision as a referee you need to remember that the above guidelines are just that; they are only guidelines.

The real need is for referees to practice decision-making. Decision-making is a skill that is developed from experience, practice and study. As Croquet Referees, we must and do, study the Laws, Rules, Regulations, Manuals and the technical material available to us, but we do not get much opportunity to gain practical experience. There is, therefore, a real need to practice privately. Have a friend play a series of repeated strokes of any type and watch (and listen to) the results. Listening is a learned skill; have a friend play a series of double-taps at a close run (acute angle) hoop. Listen with your eyes closed and after repeated strokes you might be surprised how much improved your skills become in detecting the different sounds. As sound (echoes and the ambient sounds) is an unreliable indicator the decisions need to be made on the movement of the balls. Applying the decision-making principles illustrated in the Referees Manual, referees can confidently make decisions about straight-on double-taps on another ball.

The difficult decisions are with potential double-taps where the striker attempts to 'hit away', as discussed above. It is in this context that the observation of the reaction of balls, relative to their separation distance (and the other factors discussed above) is where practice is essential.

The “Cornflour” Test (Training Tool)



This procedure is a training tool helping to familiarize trainee referees and umpires with the technique of making judgments by observation enabling them not to rely on sound alone, as that is unreliable. The judgment is based on the angle that the striker ball departs from the point of contact after hitting the target (or hit) ball. A 'hit' ball is one in which a continuation stroke is played (i.e. a 'clearing' or 'scatter' stroke)

Training procedure:

Create a diagram, using Cornflour as shown above. (Cornflour will wash off and will not be visible after the next watering.)

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Equipment required:

Two Yardsticks and a very large single-hole Salt Shaker (or similar) containing cornflour.

- Place the two 'Yard Sticks' on the lawn, (inside or outside the court) parallel and one inch apart.
- Sprinkle the Cornflour between the sticks.
- Repeat at 90°, in order to create a right angle.
- Repeat at 45°, to divide this right angle into two segments.
- Repeat between each so that the right angle is divided into four approximately 22° segments.
- Position two balls at the end of the triangle one to three inches apart.
- Conduct the carbon paper test.
- A striker ball departing in the 0° to 22° triangle will always show a double-tap.
- A striker balls departing in the 22° to 45° triangle will probably be a double-tap.
- A striker ball departing in the 45° to 68° triangle will possibly be a double-tap.
- A striker ball departing in the 68° to 90° triangle will **never** be a double-tap.

This is a training technique and impossible to use during a game but the same 'triangle' can be achieved by placing four markers as shown previously. Four markers are an acceptable number to use especially if the game is critical and a double-tap could change the outcome. When conducting training sessions suggest you allow the participants to try the carbon paper test; they have great fun trying to beat the system. Always prepare at least 6 mallets with carbon paper strips attached, prior to a session starting.

The Carbon Paper Test – For Double-taps

This is a very simple but effective test – some details are available on the Oxford site in the technical section <http://www.oxfordcroquet.com/tech/impact/index.asp> Essentially it is a matter of:

1. Taping a sheet of carbon paper just large enough to cover the face of a mallet, carbon outward.
2. Over that tape a sheet of white paper.
3. Perform the test by striking a ball or balls in whatever shot is chosen.
4. Remove the white paper and one or two marks will be evidence of whether the shot is clean [one mark] or a double-tap [two marks].
5. A little experimentation will reveal a great deal about double-taps. Smears will prove maintenance of contact [pulls and pushes] but some experimentation is necessary!

Figure 1 Example of a 'double-tap' or 'multiple hit' with the balls starting 50 mm apart. The visual evidence - The *struck* ball traveled 5 metres. The forward (*hit* ball) traveled 10 metres – indicating that a double-tap had occurred.

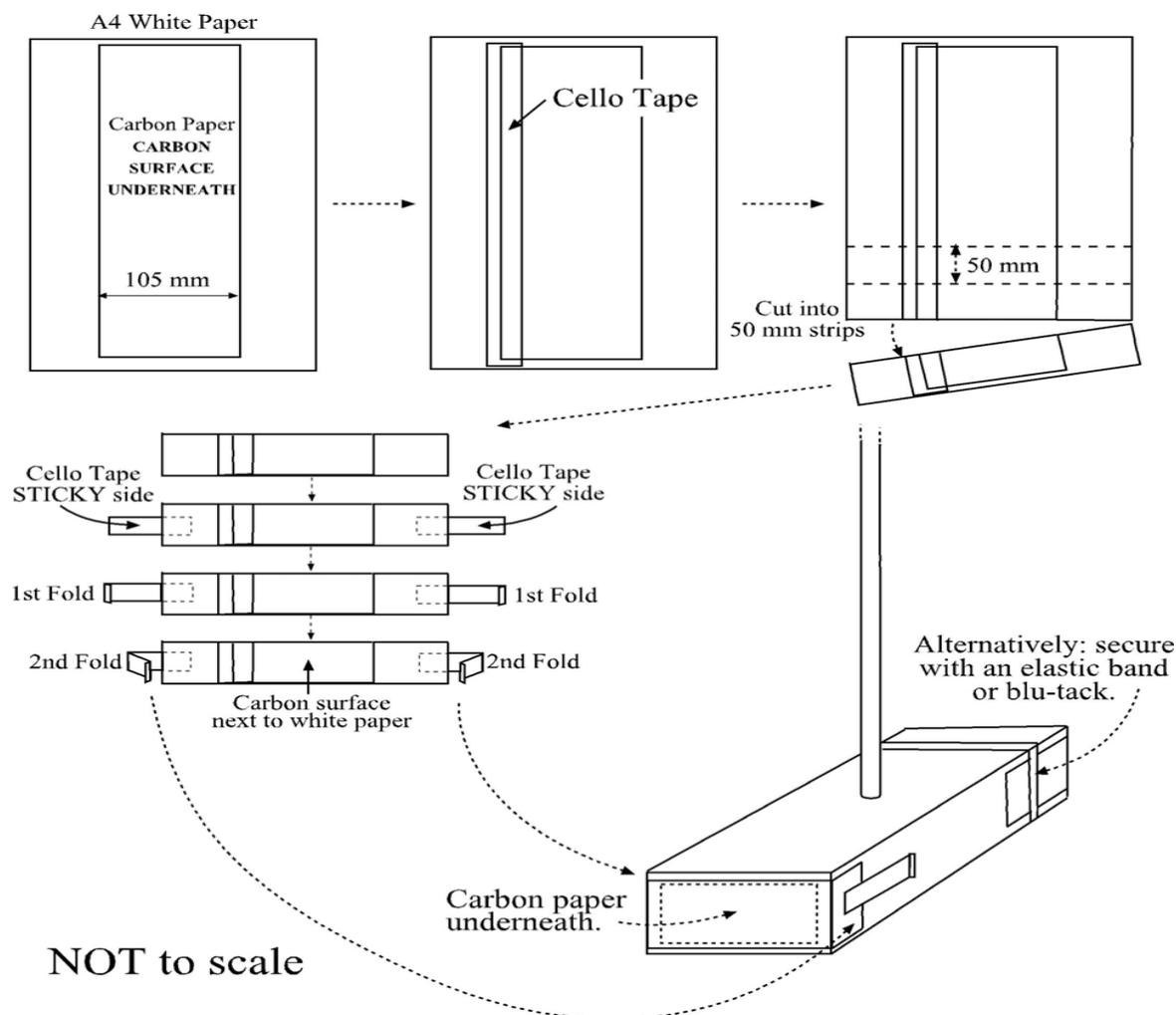
After the carbon paper was examined it revealed two impressions = double-tap.



Figure 2 The carbon paper impact test show smears indicating 'pushing or pulling'
Law 28 (a)(7), 28(a)(8)



Making a carbon paper test kit:



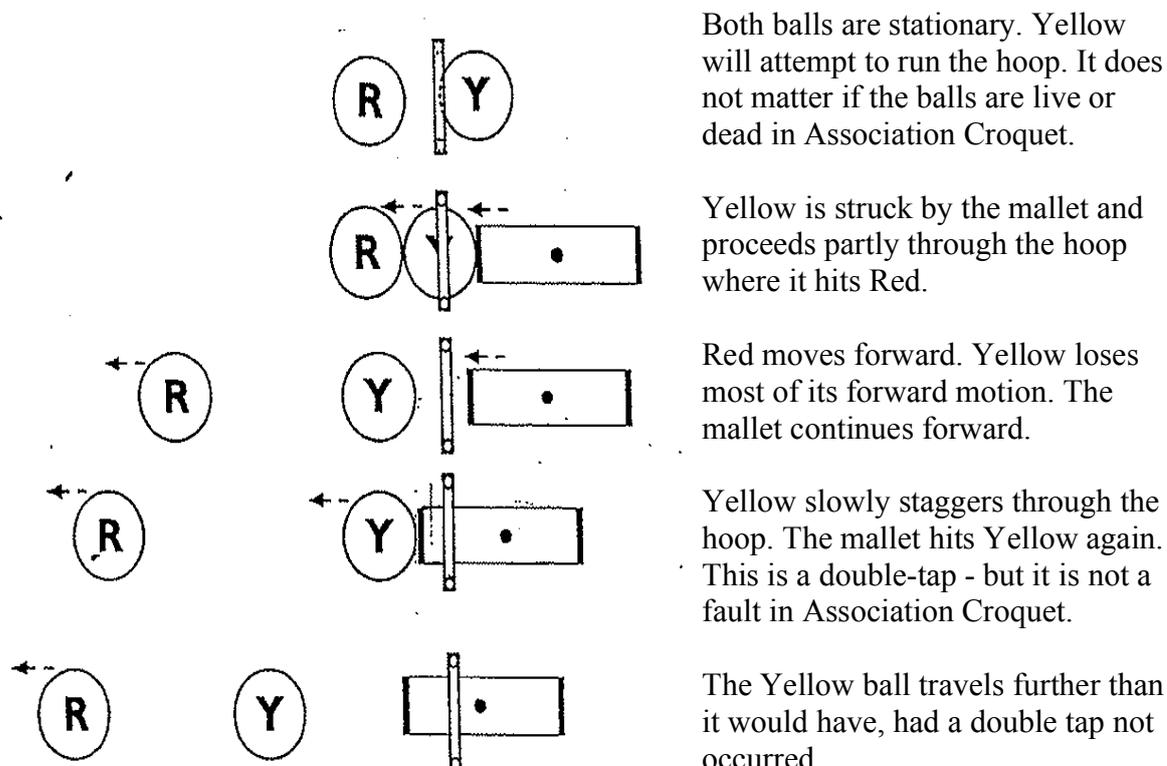
Making a carbon paper test kit:

1. A sheet of A4 size plain white paper.
2. A sheet of A4 carbon paper cut in half vertically 100 x 300 mm (4" x 12").
3. Centre the carbon paper on the white paper – carbon side towards the paper.
4. Sellotape one side of the carbon paper, the full length, to the white paper.
5. Cut across to make combined strips approximately 50 mm (2 inches) wide.
6. Use sellotape to make a pre-folded attachment at each end, to facilitate quick attachment to the mallet face – see sketch.

Rudi Miller (Kew CC, Melbourne) formed the idea that was directly responsible for the development of this quick and easy method of preparing these strips and the method of attachment of these strips to the mallet face.

Hoop and Roquet – Double-tap

When called to witness the situation below it is important to establish that the target ball (Red in the example) is definitely clear of the hoop on the non-playing side in order to ensure a ‘hoop and roquet’ situation is a possible outcome.

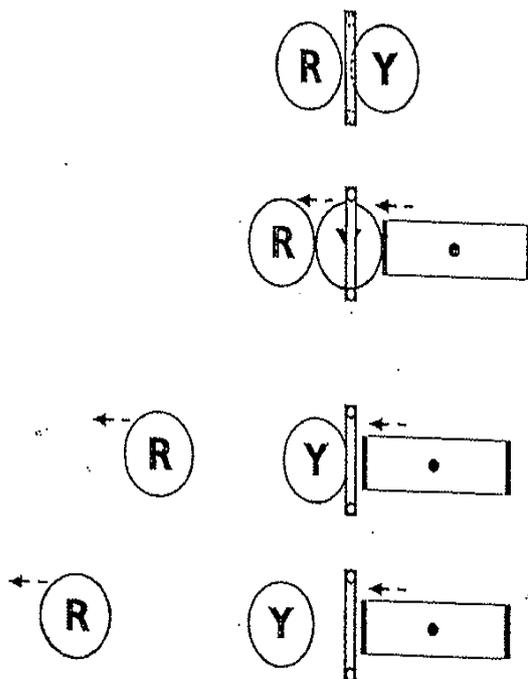


Explanation:

This is not a fault as in the Hoop and Roquet Law 17(b)(1)&(2) it is *deemed* to be a roquet. This is called a policy law. See ORLC 17 for a detailed explanation.

Hoop and Roquet – Ball Crush
(formerly called a ‘push’)

The term "Push" was commonly used and is a colloquial word for the term “maintains contact” Law 28(a)(7) but the term “Ball Crush” has gained wide acceptance and better describes this fault.



Both balls are stationary and in this example only 2 mm apart. Red is 1 mm *clear* of the hoop. Yellow will attempt to run the hoop. It does not matter if the balls are live or dead.

Yellow is struck by the mallet and proceeds partly through the hoop where it hits Red. Yellow has maintained contact with the mallet head [a ball crush] because of the initial small separation distance between the balls.

Red moves forward. Yellow loses most of its forward motion. The mallet stops.

Yellow slowly staggers through the hoop. The Yellow ball has traveled further than it would have had a ball crush not occurred. **This is not a fault.**

Explanation:

If the balls are separated by 3 mm the Yellow ball will not leave the mallet before it hits Red (*they stay in contact for approximately 2 to 4 mm before parting*) see the work by Prof. Stan Hall <http://www.oxfordcroquet.com/tech/hall/index.asp>. In this case it cannot be a double tap but it will be ‘ball crush’ (a push or maintenance of contact) -- **even so it is a legal stroke under Law 17(a)(2) – not a fault, as this is a policy of the ILC**

Note: the term 'Policy Law' [policy of the law] is a quotation from a member of the ILC. It is not meant to imply that it is an ACA policy -- see ORLC 17-3-3 for an explanation.

If the distance is more than 4 mm and the Yellow causes a double tap on Red, this is not a fault either, as in the Hoop and Roquet Law 17(b)(1). It is deemed to be a Roquet; this is called a policy law. See ORLC 17.3 for a detailed explanation.

The Crush and Double Tap in or close to a hoop

The term "crush" is a shorthand or colloquial way of describing Law 28(a)(9) & (10).

The following is a quote from ORLC 28.12 ----- Law 28(a)(9)

'Strikes the striker's ball so as to cause it to touch a hoop upright or, unless the striker's ball is pegged out in the stroke, the peg when in contact with the mallet'

This is the classic crush stroke but it is more difficult to commit than many referees seem to believe. Professor Stan Hall demonstrated that a croquet ball remains in contact with a mallet end-face for a very short time, and somewhat paradoxically, does so for longer in gentle shots. In any event, the longest distance that mallet and ball will travel in contact with each other is about 1 cm (10 mm – less than half an inch), Note: that this does NOT mean that any ball within 1 cm (10 mm) from an upright is therefore a candidate for a crush. The distance that matters is that between the impact points on (a) the ball's circumference and (b) the upright's circumference. In practice, unless the striker is so incompetent as to drive the Striker Ball almost straight at the upright (in which case he will double tap anyway), this means that the nearest point of the ball must be within to 2 mm of the upright before there is any real chance of a crush". – End quote

Quote: ORLC 28.13 Law 28(a)(10)

"strikes the striker's ball when it lies in contact with a hoop upright or, unless the striker's ball is pegged out in the stroke, the peg otherwise than in a direction away there from.

This is the easiest way to commit a crush but should only occur if the striker is ignorant of basic physics or tries to play close to the forbidden line and the referee believes he transgressed it". – End quote.

Simplified ACA Statement:

Unless a ball is actually:

- touching a hoop leg, or
- within 2 mm of the hoop leg then a 'crush' cannot occur

However, a double-tap will probably occur.

If a multiple noise occurs as a result of the stroke it probably **will not be a crush** but possibly **will be a double-tap fault**.

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Dr. Ian Plummer kindly added the following information to the Oxford Croquet web pages after a request for more detailed, clear and simple examples on the subject for instructional purposes.

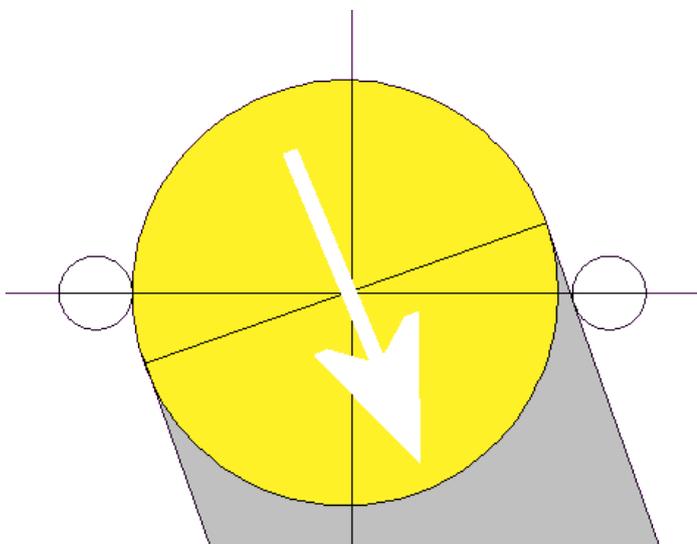
<http://www.oxfordcroquet.com/tech/crush/index.asp>

What Does This Mean in Practice?

There are both static and dynamic aspects to crushes.

For static situations you can readily define a range of safe angles that a ball can be hit through a hoop where it can slip through with no possibility of being pressed against an upright.

In the plan diagram below the ball lies in the jaws of a hoop resting against one upright. The diagram is to scale with a 1/8" gap between the ball and the hoop.

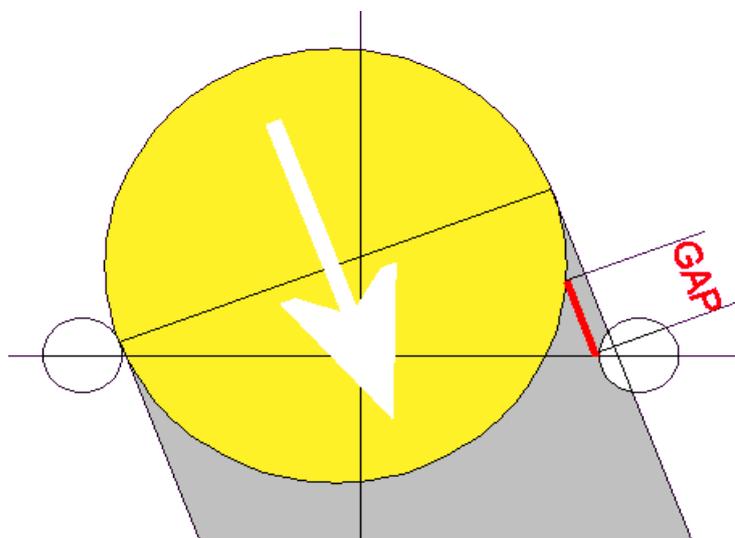


The diagram shows that the ball can be played at an angle of up to $\sim 20^\circ$ out of the hoop without the possibility of a crush. The edge of the grey region lies on the tangent of the ball and the right hand hoop upright.

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Consider however the situation below:



The stroke has to be played at no less an angle than that defined by the perpendicular to the point of contact between the ball and the left upright in the diagram. Otherwise the ball will be forced into the left upright and be a crush.

At first inspection it appears that the ball will plough into the right upright - it does not have to be a crush though. The dynamic effects have to be considered.

As mentioned in the Commentary above, during a stroke the ball is in contact with mallet face for a brief time at the start of the impact and then springs away from the face. I have repeated Prof. Hall's measurements and [confirm his observations](#). For a normal stroke the ball would 'stick' to the mallet face for $\sim 0.25''$; for a softer stroke a longer distance, $1\text{ cm} = 0.4''$ is suggested.

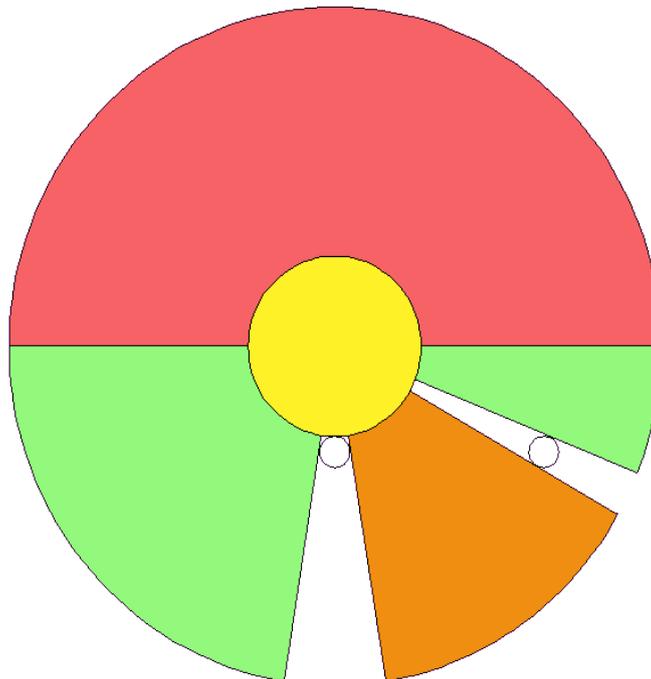
The red line marks (approximately!) how far the ball needs to move before it makes contact with the right upright. Provided that this is greater than $\sim 10\text{ mm}$ **and** the mallet does not follow on then the stroke can be entirely legal.

Such strokes should be refereed since there is plenty of opportunity for things to go wrong. The likely faults would be a crush or multiple contacts between the mallet and the ball ('a double hit'), e.g. if the mallet catches up with the ball or the ball bounces back from the upright onto the mallet face.

Finally, crushes can happen in non-hoop running situations. For completeness an example is given below.

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Here the yellow ball lies on the left hand wire. The red regions indicate where a crush would occur if the mallet is swung towards the centre of the ball. The green regions are 'safe' regions where the ball cannot be crushed - although near the upright the side of the mallet face would have to be used. The orange region is where it is also 'safe' to play although it would depend on the size of the mallet head as to whether it can get access through the uprights.

Author: [Dr Ian Plummer](#)

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Court Damage

A **Court** Damage fault can only be awarded, under Law 28(a)15 during the striking period.

This includes jump shots, hammer shots, cannons or any shot in which the **mallet** actually damages the grass surface of the court. The damage must have been **caused by the mallet and not by the ball**. *Before damage may be repaired it is to be assessed by the Referee.*

If the stroke involved breaking the surface of the court and is "capable of affecting a subsequent stroke/turn played over the damaged area"; then a fault is imposed.

If the striker is observed to be repairing the court by pressing the foot into the court in the vicinity of a dubious stroke, in what appears to be an effort to disguise a damage fault, this in itself is not sufficient evidence to award a fault but is certainly sufficient to forestall play and request the services of a referee to adjudicate on the matter.

As the Law does not specify an objective test it is possible that a player may appeal any decision. In order to avoid or pre-empt any such appeal it may be wise to obtain confirmation from the Tournament Referee prior to announcing your decision, particularly if play is taking place on a rather uneven court.

Refer to ORLC 28.18 for an additional detailed explanation.

Calling Time

When games are played with time limits ACA Tournament Regulation 16 is normally specified in the Tournament conditions. As an Authorized Referee of the tournament you need to be aware of the Conditions of Play for the tournament.

ACA Tournament Regulation 16.3 specifies that: "*.....the players should arrange for an independent person or, failing that, one of themselves to be responsible for announcing audibly that the time limit has been reached*".

It often falls to the Umpires or Referees to perform this function if "in charge" RiC, but if operating as Referee on Request on Call or Request, you ought to be aware of the time provided your responsibility does not cover too many courts. However, you are still not in charge of calling time unless specifically requested to do so by the players.

Problems occur if time has almost elapsed and neither side is aware of it, the timer rings unexpectedly and the players are uncertain who has the last turn. An appeal may be made to you as a Referee of the tournament to adjudicate on the matter. This scenario is exacerbated if the players have agreed to allow each other to "play-on" during the game and confusion occurs at the expiry of time.

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How time is kept

The use of the electronic timer is now almost universal, except when the players, as timekeepers, use their personal stopwatch. A wall clock may be on display but it is for general information and nowadays is never the official timer.

Often the players will start the game themselves by activating the timer which records hours, minutes and seconds. If you are acting as a Referee-on-Request - RoR, what should you do at this point? If you have been allocated to be available for the court in question, you could write down the time the game started and record the order of the first four balls played, and at some point possibly diplomatically enquire who is the Timekeeper. *(If the players have expected the Referee to assume this duty, then enquire as to whether or not they wish you to be timekeeper, but only if you are assigned to that one court.)*

Where the timer should be placed

The timer needs to be in a safe and convenient place where the players can easily see and have access to it during the game.

The procedure as time draws to a close.

The Referee or Umpire (when acting as a timekeeper) ought not to obviously look at the timer and *certainly not pick it up*. This could be an indication to the players that the time limit is approaching. This is almost the same as giving advice. Preferably the Referee or Umpire should be able to see the time 'out of the corner of the eye' without looking directly at it.

The Referee or Umpire, acting as Timekeeper ought to be carefully looking at the striker to determine exactly when the last stroke is played. (Note: ACA Tournament Regulation 16.3.1.) Once the timer rings, the Referee or Umpire Timekeeper is authorized to immediately, put himself 'in-charge' for this purpose. He may then go onto the court and speak directly to both players and make them fully aware of the exact state of the game, by announcing who is in play and who has the last turn. The Referee/Umpire is to stay on the court until fully satisfied, by getting agreement, that both players understand the situation. This avoids the possibility of the confusion that has sometimes occurred.

Replacement Of A Ball After Interference - Law 33

Please note this is merely a suggested means of coming to an agreed outcome between players and is not intending to claim to be mathematically accurate.

When a ball, which is moving, either a struck ball or a croqueted ball, hits a stationary ball of another game (an outside agency) the actions that follow are to:

- replace the stationary ball (**W**)
- place the struck ball (**B**) "- all balls must be placed as near as possible to where they would have been at the end of the stroke had the interference not occurred"

Determining this is sometimes difficult.

Immediate actions:

1. Mark the original positions of say White - W1 and Blue - B1
2. Mark the final positions of B2 and W2
3. Return White to W1
4. Measure the distance of W1 to W2 (X distance)
5. Measure the distance of W1 to B2 (Y distance)
6. Determine the direction of Blue 1 (the line of B1 to W1)
7. Position B onto B3, the line that B would have taken (this is W1 + Y)
8. To determine B4, add Z (which is X times 2.5) to the line along B1 to W1 (X multiplied by two and a half times equals Z. Add Z along the line of B1 to B3)

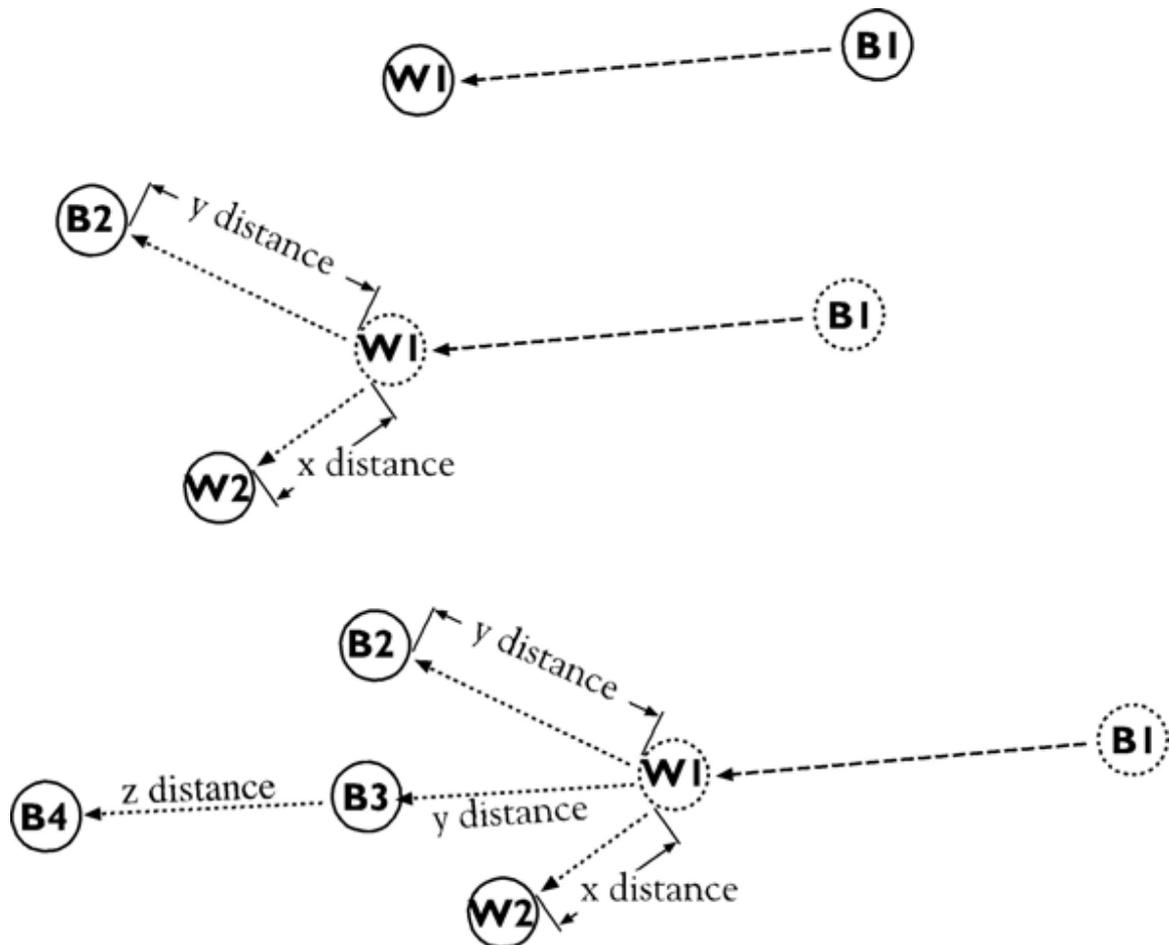
Another way of saying all of this in simple language:

- Put white back where it started. Then place B along the line it would have traveled (the same distance it did travel to reach B2).
- Add two and a half times the distance white traveled after being hit by blue [X times two and a half], along the line blue would have taken.

All this assumes that the Referee has been called early enough so the final ball positions can actually be marked and the calculations carried out.

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If players disagree and the balls have been moved before the Referee is called to give an 'on appeal' adjudication about the final possible resting place of Blue, perhaps the compromise is to place the ball half way between both claims.

A "tongue in the cheek" but nevertheless sound way of saying this, is to place it in a position "of mutual dissatisfaction to both sides". While this seems a somewhat casual statement, it is nevertheless a valid way of saying "place it in a compromise position."

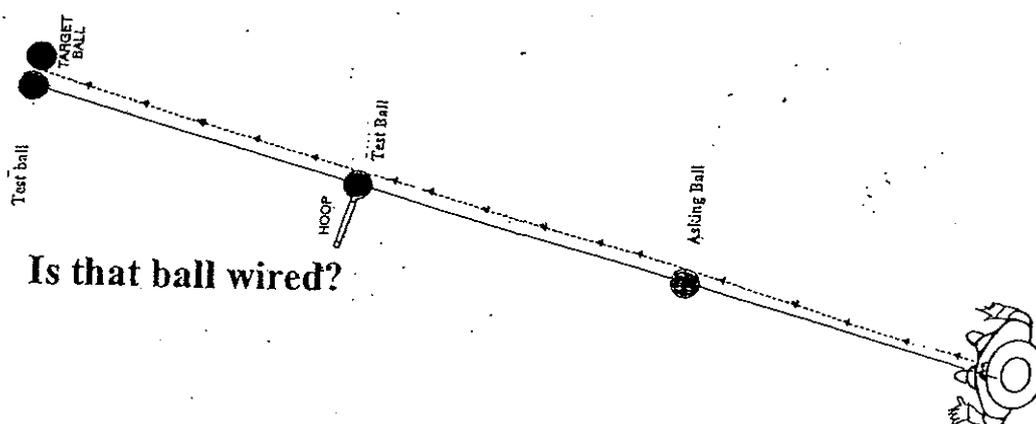
Wiring Tests

The old standard "two ball" wiring test that was conducted standing up behind the test balls to see if a 'dogleg' occurs, works well if the balls are obviously wired or not wired. If it is so obvious, it leads one to wonder at the seriousness of such an appeal. Unfortunately a test must be conducted however frivolous and time wasting the appeal.

However when the situation is *very close* to being wired or not wired, far greater care needs to be taken when conducting a test where the asking ball is open to the target ball by perhaps, only a quarter or half an inch (6 to 12 mm).

If the 'standing behind test' is used, it is difficult to accurately locate the 'top centre' of all three balls and therefore it is *almost impossible* for a accurate judgment to be made, for or against.

The judgment becomes more difficult as the distance increases between asking and target balls. This test has progressively been abandoned. This then leads to the situation where a competent test is necessary. The consensus at senior levels is that the judgment *is to be made at half-ball height*. This is the approved method of making judgments for close wiring decisions. However making judgments at half-ball height in itself creates some other problems.



The ball at half-ball height problem:

When conducting the test at half-ball height, the test balls can be difficult to see.

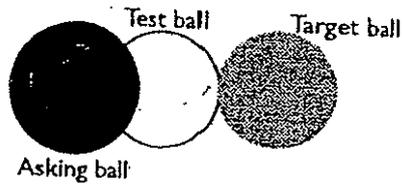
Test ball next to target ball:

When a test ball is placed next to the target ball, there is a very small area where the two balls actually *touch* (where the equators meet) and sometimes it is in shadow and this area can then be very difficult to see clearly.

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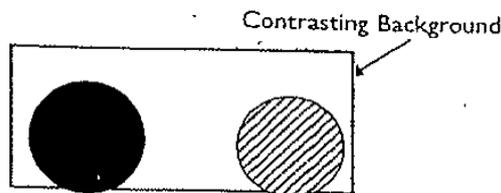
There is also the ever-present possibility that when the test ball is actually placed against the target ball, this will cause the target ball to be *moved*. If a referee moves a target ball, the test evidence is corrupted; this should never be allowed to occur.



Solution to problem:

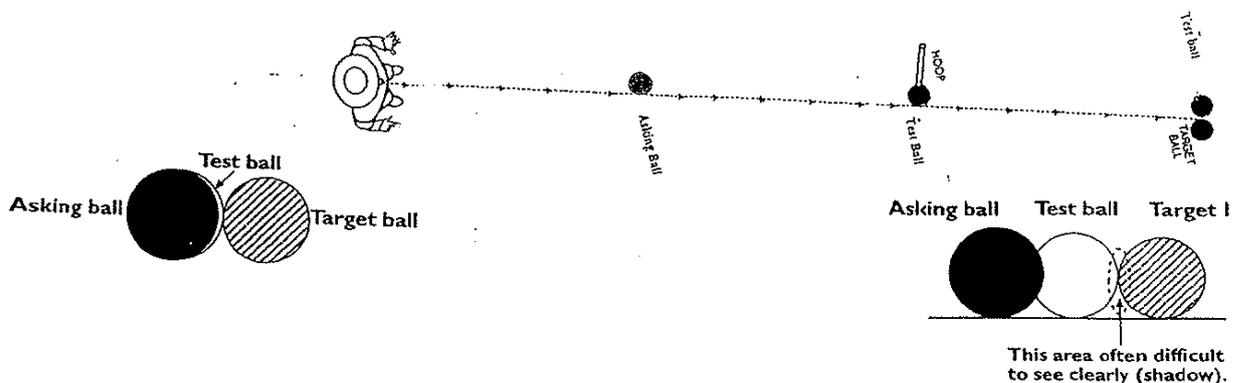
Do not use a test ball. Use the contrasting background test instead, such as a ball box painted white for preference.

The use of a test ball resting against the target ball has long been abandoned, as a contrasting background is so obviously superior.



Test ball at obstruction:

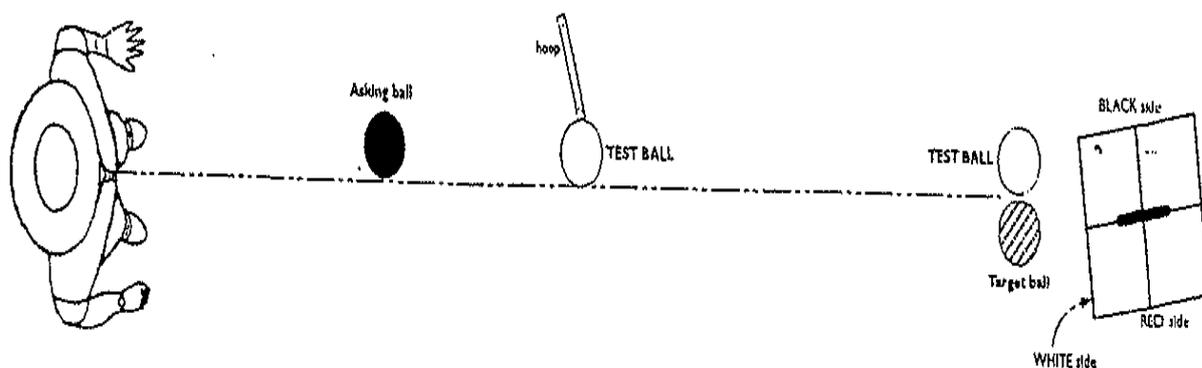
The purpose of this test ball is to replicate the path of the asking ball towards the target ball. The accepted method is to position the test ball *against* and *touching* the obstacle. The validity of which, in itself is open to speculation. **Maybe an unspecified space ought to be left, because if the asking ball touched the obstacle in its progress toward the target ball it would be deflected.** In the absence of conclusive data, the test has been accepted as such and the fact that a 'test as such' is an *aid* to decision making for the benefit of the referee. Perhaps this is the first test to be performed and repeated with the test ball a mm or less (just a visible gap).



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In a close test it can be difficult to distinguish which ball is which.
Easier to sight the eclipse if the contrasting backgrounds test is used:



The Asking Ball (A) has to perfectly eclipse the Test Ball (B) – using the two outside edges of balls A & B.

Test method:

Position the eye at half-ball height

- Sight along the line of eclipse of ball A to test ball B
- If a space appears between AB and the target ball the balls are not wired (Any 'space' is filled with the colour of the contrasting background box)
- If no space can be detected the Asking ball is wired
- The elimination of the second test ball resting against the target ball and its replacement with a contrasting background (coloured box) greatly facilitates the test.

The test 'at half-ball height' is also easy to perform by using a mirror instead of having to lower the body onto the lawn.

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Problem Solving Basics

How often have you been phoned or sent an email query about a problem or situation and having worked about halfway through, find yourself confronted with the realization that you do not have all the facts? It happens all too often. Many of the Q&A's that have appeared in various magazines or posed at Laws and/or Referees days lack some of the basic information required. Worse still the answer supplied by the enthusiastic recipient is incorrect, because they have not been informed of all the facts.

Check List before making an enquiry:

1. Before making the telephone call – make notes. Write an outline of the problem.
2. Be sure to fully disclose all the facts.
3. Specify what type of a game it is e.g.
 - a. Is it level, advanced level, or handicap?
 - b. What Division?
 - c. What is the handicap range of the players?
 - d. Is the game 'time limited' or 'unlimited'?
 - e. What type of event – Australian Championships or Club event?
4. Was there a Referee assigned to the game and if so, in what mode was the Referee operating? In Charge, On Request, Supervising etc.
5. How much time had elapsed?
6. Who was the timekeeper?
7. Was the timer stopped and if so who stopped it?
8. When the actual incident occurred where was the Referee and in what mode?
9. What happened next? Did the Referee need to be called onto the court and in what capacity e.g. On Appeal etc.
10. Explain the sequence of events; specify who said what [write notes]. Also specify any change of mode that the Referee assumed or was asked to assume.
11. If the Referee made a ruling; when was it made, and was the Law or Regulation used also disclosed to the players?
12. Was the TR called? And at what point? Where was the TR at that time?
13. If the Referee was not called what happened next?
14. Was the Manager involved and if so why and what transpired?
15. What then finally happened?
16. Did the person who is reporting this incident write notes and how soon after the event were these notes written?

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If by some circumstance you became involved [e.g. as the TR] and had to broker a resolution, consider what Law or Regulation could apply and what **other** Law or Regulation might be applied as an alternative.

Always remember your function as a Referee is: "to ensure that, within the Laws and Regulations of the Game, that a fair and equal contest is conducted". Also remember, "**That the game is for the players**".

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Basic Association Croquet Laws - Principles and Exceptions

This is a set of guidelines for a Tournament Referee or Seminar Tutor to use in order to conduct a training session or as an aid during a more senior refresher course for existing Referees. It is intended to encourage participants to consider some of the seemingly inconsistent instructions contained within the Laws.

- 1 **A ball is to be stationary before a mallet strikes it.**
Exceptions: may be struck if it is moving after it comes to rest. (See Note below)
- 2 **A ball is only to be 'struck' once in the same stroke.**
Exceptions:
 - Except as a result of a Roquet.
 - Except as a result of pegging-out.
 - Except as a result of a 'hoop & roquet'.
- 3 **Only one ball is to be struck with the mallet in any one stroke.**
Exceptions: none
- 4 **A ball is only allowed to be roqueted if it is 'live'.**
Exceptions: a dead ball 'roqueted' in a 'hoop and roquet'.
- 5 **After playing a single ball stroke, the striker's turn ends, unless the striker's ball makes a roquet or runs a hoop.**
Exceptions: none
- 6 **Neither ball is legally allowed to leave the court in a Croquet stroke.**
Exceptions:
 - The croqueted ball: none.
 - The striker's ball: only if the striker's ball also makes a Roquet or runs a hoop.
- 7 **Purporting to take croquet from a wrong ball is not allowed.**
Exceptions: none
- 8 **Striking a ball other than the Striker's Ball is not allowed.**
Exceptions: none
- 9 **A ball is to be in its legally correct position in order to be played (struck) or to be the target ball.**
Exceptions: when it is discovered that a ball has been played from:
 - within the yard-line area; or
 - has moved after being stationary for 5 seconds. Laws 6(b)(5) or
 - as in Law 27(b)(1); or
 - as in Law 27(b)(2); or

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- 10 **As a result of a croquet stroke the Croqueted Ball is to move otherwise it is a fault.**
Exceptions: if the croqueted ball moves but because the Striker's Ball is played 'away-from' (and not into the croqueted ball) even though the croqueted ball moves, it is a fault.
- 11 **Lawful Position: All balls are to be in their lawful positions.**
Exceptions: Except if played from a wrong position, which is not discovered until the Limit of Claims has expired. Exceptional cases may be dealt with under Law 55.

NOTES relative to the above numbers

1. It is an *error* to strike a ball *before* it comes to rest, but it is a non-fatal error so the ball is merely placed where it would have come to rest and the stroke is then replayed.
Law 5(c), 5(g) & 33(c)
2. It is a *fault* if during a roquet stroke the striker ball rebounds off a hoop or peg or a dead ball and hits the mallet again. Law 28(a).

It is *not* a fault if the ball is re-hit as a result of playing a roquet stroke and other cases
Law 28(d) Exemptions.

It is not a fault if the striker ball double taps as a result of the striker's ball hitting a *live* or a *dead* ball during the running of its hoop in an allowable 'hoop & roquet'. Law 17(a)

However "striking twice" (involving two separate swings) is different from the "double tap" situation. If the striker hits a ball, which has stopped (e.g. in the hoop jaws) and after the mallet, obviously accidentally/deliberately, ceases its forward motion, and then continues with a *second* forward motion, this is considered to be two strokes. The second stroke does not count and the ball is placed where it came to rest as a result of the first stroke Law 25(a) (it is not a double tap)

3. It is a *fault* if the mallet touches the croqueted ball (or any other ball – other than the striker's ball) during a croquet stroke. Law 28(a)(12)
4. If a dead ball is hit by the striker's ball in the continuation stroke; this is not a roquet and therefore is a *fault* if a 'double-tap' occurs. Law 28(a)

Hoop & Roquet - A 'dead' ball *that is not* a full ball width away from - but clear of the plane of - the non-playing side of the hoop, is roqueted in a 'hoop & roquet' by the striker's ball [on which it is dead] as the policy of the Laws permits this under Law 17(a). Determining if it is 'hit and then hoop' which logically it is if the dead ball is less than a full ball width away from the hoop, or 'hoop and then roquet' is too difficult; so the Laws allow it as 'hoop and roquet' even if it is obvious that the 'hit' occurred before the striker ball became 'live' on the target ball. This may be termed a 'Policy Roquet'.

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5. A ball that leaves the court in a single ball stroke (without making a roquet) if it is the 'end of the turn' and is measured in Law 5(g).
6. If either ball leaves the court in a croquet stroke (unless the striker ball runs a hoop or makes a roquet) it is the 'end of the turn' Law 20(c) (It is **not** a fault.)
7. It is an *error* to take croquet from an (incorrect) live ball – however it is not an 'end of turn error' and the striker merely takes croquet from the correct ball (the roqueted ball) and continues the turn. Law 27(e)

It is an *end of turn error* to take croquet from a dead ball. Law 27(d)

Actually it is impossible to '*take croquet*' from a ball from which the striker is not entitled, this is called '*purporting* to take croquet'. It cannot actually be called taking croquet because you are not entitled to perform such an action.

8. It is a fatal *error* to directly play (purport to strike) a wrong ball. eg. an opponent's ball or the partner ball of the designated striker's ball. Law 26(a)(1).

It is a *fault* to touch one of your opponent's balls or your partner ball with your mallet during the striking period (stroke: the act of striking a designated striker ball). Law 28(a)(12).

- 9.1 If a ball is played when it is in a position that it is not allowed to be, it is considered to be in a correct position if it is played from an incorrect position and not discovered until after the limit of claims has expired. – Limit of Claims is the actual stroke.
 - within the yard-line area. Law 27(i)
 - or has moved after being stationary for 5 seconds. Law 6(a)(5)
- 9.2 In the two following cases it is acceptable to play a stroke when balls are in their wrong positions. Law 27(b)(1) – Limit of Claims is that stroke.
 - if a striker ball is **not** touching the roqueted ball during a croquet stroke, when it *ought* to be touching, as in Law 27(b)(1) – Limit of Claims is that stroke.
 - if a striker ball **is actually** touching a ball (other than the roqueted ball) in a cannon when it *ought not*. As in Law 27(b)(2) – Limit of Claims is that stroke.
- 9.3 When a Target Ball (TB) is in an incorrect position and the striker attempts to roquet and misses or hits (roquets), a replay cannot be claimed by either side. Law 27(i) – Limit of Claims is that stroke.
- 10 **If the Striker ball is played 'away-from' (and not into) the croqueted ball and the croqueted ball moves only as a result of it having been 'leaning' against the SB, it is a *fault*. Law 28(a)(14) – Referees should note this would be an extremely contentious decision and would probably lead to an appeal to the Tournament Referee.**

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- 11 A ball from a double-banked game or a ball from another court *does not exist*, in the context of the game being played. (Think of it as a *mirage*) Therefore:
- 11.1 If a ball (purported target) from another game is hit in an attempted roquet, the striker ball is placed where it would otherwise have come to rest, on the principle that the striker ball has passed through the *non-existent* target ball. (Consider it to be a *mirage*) Law 33(a)(2) -- end of turn.
- 11.2 And 11.3 The same applies if a **stationary ball** from the other game interferes with the passage of the striker's ball or the croqueted ball – the interfering ball (the 'non-existing' outside agency) is replaced and the croqueted ball and/or the striker's ball is placed where it would otherwise have come to rest. Law 33(a)(2) - The striker ball plays the continuation stroke – no replay is allowed.
- 11.4 If a striker ball is placed against a ball that does *not exist* and plays a purported croquet, stroke it is disregarded. Law 33(a)(2). Balls are replaced and a legal croquet stroke is required to be played. [Similar to Law 27(e)]
- 11.5 If the striker actually plays (purports to strike) a ball from another game it is seen as taking a practice swing in thin air, as the ball from the other game does *not exist*. Laws 7(a)
- also as the striker did not intend to 'strike' an outside agency it is a non fatal error. Particularly as it has not complied with Law 5(a).
 - the striker is now required to:
 - I. strike the correct ball (stroke)
 - II. or play another ball within his game, an incorrect ball (fault)
- 12 **Lawful Position: All balls are to be in their lawful** (correct position) **positions.**
Exceptions: Except if played from a wrong position, which is not discovered until the Limit of Claims has expired (e.g. by failing to check the position of a ball incorrectly positioned by the opponent).

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Guidelines for Referees: Benefit of the Doubt

Remember that tests are **aids** to the referee and cannot be regarded as giving perfect answers.

In tests where there is doubt, the benefit of doubt ought to be considered.

In the following cases:

- has the ball made the hoop?
- did one ball hit another ball?
- did a double tap occur in a dead ball situation?
- did a double tap occur in a close hoop running situation?

A fault is to be called if the referee thinks it more likely than not that a fault has been committed in accordance with Law 48(d)(4)

Is that ball wired?

If in doubt give the decision against the former striker and **for the player** who is appealing for a wiring lift decision, in accordance with Law 13(e)(2)

“The striker is entitled to the **benefit of any doubt** in the adjudication of whether one ball is wired from another.” (‘The striker’ is the player who has just come onto the court and made the appeal.)

Other Situations:

If a referee is called to adjudicate whether a ball is in or out of court and finds:

- the ball is marginally in or out or
- the striker is standing on the string border line.
-

If it cannot be determined whether the ball is marginally in or out on a chalk border line (50/50 with no indication either way) the benefit of doubt ought to be in favour of the striker, that is against the out player (who may be appealing or merely awaiting the outcome of the referee’s decision because the striker has called the referee). The basis for this decision is that the turn is still in progress and the border (borderline) ball if not obviously ‘out’ ought to be considered to be ‘in’.

In the case where the striker is standing on a string line; the Referee ought to give the benefit of the doubt against the striker on the basis that the striker has contaminated the evidence. Standing on the string could have moved the ball in or out. As the striker is guilty of contamination, the benefit of the doubt is to be in favour of the out player.

Decisions

In accordance with ACA policy no decision is to be made other than on the ‘balance of probabilities’.

A fault is to be called if the referee thinks it more likely than not that a fault has been committed.

Law 28(7)(A) - in a croquet stroke, or continuation stroke where the striker’s ball is touching another ball, allows the mallet to contact the strikers ball visibly more than once; or

Law 28 (7)(C) - in any stroke, allows the mallet to remain in contact with the striker’s ball for an observable period;

Law 48 (d)(4) - a fault under law 28 is to be declared if a person watching the stroke under Law 48(d)(2), or the striker, believes it more likely than not that the law was infringed.

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APPOINTMENT AND DUTIES

Once appointed, the Tournament Manager (TM) and the Tournament Referee (TR or ROT) become members of the Tournament Committee (see ACA Handbook for Regulations pertaining to ACA events). The TR & TM have equal authority within their areas of responsibility.

In April 2012 the ACA adopted the WCF REFEREE Regulations - see Appendix 1

Other Officials

All other “Refereeing” officials are appointed by the TR and are named as “authorized for the tournament”. These will included:

- Accredited ACA Association Croquet Referees
- Accredited ACA Association Croquet Umpires
- Suitable Persons

Only if there are insufficient qualified Referees or Umpires to officiate during an event may a TR use their discretion to appoint other Suitable Persons.

Hoop Setters - may be appointed for initial set up of courts and on occasion to assist the TR and referees/umpires in adjusting the hoop settings during play. **Hoop Setters are at all times under the instruction of the TR.** An authorized referee/umpire of the tournament must always check hoop settings before any play commences or recommences after any adjustment or re-adjustment of court setting by any member of the hoop setting team.

See Appendix 2 for the Hoop Setter job description.

The Role of the Tournament Referee

The Role of the TR is somewhat different to that of an authorized referee of the tournament, though he may perform all the duties of an authorized referee. If TR intends to be present on court in a referee/umpire capacity he must first ensure a Deputy TR has been appointed as any decisions he makes whilst acting on court may also be open to Appeal. It is, therefore, preferable that the TR appoints sufficient numbers of officiators to cover all venues in use during the tournament.

With the advent of mobile phones it is no longer essential to appoint a Deputy TR to all venues, should multiple venues be in use. It is reasonable to expect an Appeal to the TR could be made via the telephone.

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The TR should never consider over-ruling the Referee's decision because a decision about "fact" cannot be over ruled. Occasionally a player may disagree with the referee's ruling say about a wiring decision and Appeals to the TR. The TR should not conduct the test but only determine if the test method used was valid.

It is far better to confidentially suggest to the Referee that an alternative method be used to show that justice is "seen to be done". In this situation the TR's function is to fully support and protect the referee from the intimidation of an overbearing player. **However, the TR must overrule an apparent decision about fact if the Referee has applied the law incorrectly.**

For re-accreditation purposes it is recommended that the Referee's **Activity Record Card** keep account of all events they have officiated at and a separate account of incidents, which are noteworthy, be kept. These serve the purpose of ensuring officiators learn from major incidents and keep account of best referee practice and lawn craft experiences.

The TR should sign all referee/umpire Activity Record Cards at the end of every event.

TR Opening Address

This address is often given at the Opening Ceremony or in an arranged meeting with the players shortly after the Opening covering all or as many of the following as deemed necessary. It is helpful if the TR has met with the all the referees and Umpires of the event prior to this address in order to allay any concerns he or they may have relating to the upcoming event.

Players Performing Functions of Referees

Players entered in the event and who are currently accredited in their home jurisdiction are not necessarily appointed as Authorized Referees of the Tournament. It is **preferable** that should a player outside their own game or match indicate they require the services of a Referee – **priority be given to calling a Tournament appointed Authorized Referee.**

It is good practice to say All entrants in this event are appointed Umpires of this event and outline their duties and limitations as follows:

ON CALL to decide:
A ball hits another ball; or
A ball is moved or shaken; or
A ball hits the peg

On Appeal to decide:
A ball has run a hoop in order or
Is in a position to do so, or
A ball is off court

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Player Practice

Indicate the practice times and whether the balls allocated to any particular court must remain on that court alone (usual practice during Internationals Events only).

There should be no target practice using the peg or hoops, and no hoop should be run with force greater than would send a ball 7 yards without the presence of a hoop.

Hoop Setting & Adjustment

Players are not to adjust hoops during play and should only set hoops at the start of play with the express permission of the TR/TM. Referees and designated Hoop Setters will set and adjust court equipment.

Double Banked games are *considered* before any adjustment is made during play **but their permission is not required** – adjustment will be made upon authorization of the allocated authorized referee.

Time Clocks

Referees are not in charge of time clocks (unless they are Referees in Charge). Players may agree to appoint a suitable independent person to call time for them or request an authorized referee to call time if one is available. That said, players should call a Referee if they intend to stop or adjust their clock or restore time to a clock under Law 53.g (53.g.2)

RESTORATION OF TIME Law Book 53.g Time-Limited Games. 2 Restoration of time

A. ERRORS Time is NOT restored following discovery of an error whether before or after the limit of claims.

B. INTERFERENCE Time is restored if an interference under Laws 30 to 32 is discovered before the end of the game.

(Law 30 Balls wrongly removed or not removed from game)

(Law 31 Misplaced clips and misleading information.)

(Law 32 Playing when forestalled)

The clock will be stopped: -

- if a Referee's decision is appealed to the Referee of the tournament or the acting referee of the tournament;
- if a Referee needs to carry out a wiring test that requires additional equipment from the pavilion;
- at the Referee's discretion, if the Referee is occupied on one court when the game on another court also calls for a Referee and no other Referee is available;
- if a ruling has to be sought on whether an impasse exists;
- during an impasse.

Double Banking

Law 52. DOUBLE BANKING & BALL MARKING

52.c. Critical balls not to be marked even with permission.

Permission to mark must not be assumed it must be given every time.

Remember balls in open court may be in a wired position in a double-banked game.

Law 52. b. Double Banking - Precedence is:

1. Player making break
2. Player most likely to clear area first
3. Player not requiring any balls marked

Marking balls into court or into critical position

Players should be reminded to place balls onto the Court with their back to the court.

A Referee or independent person should be requested to mark the spot if a player intends rushing to achieve a cannon, or rolling two balls off the court.

Special Laws

Law 53 TOURNAMENT & MATCH PLAY –

EVERYONE IS now becoming QUICK TO REMEMBER:-

(b) Hoop Dimensions – stroke just played - suspect ball touched both hoop uprights.

JUST AS IMPORTANT TO REMEMBER: -

(c) Questionable stroke – call referee

(d) Testing – players should call a referee to perform tests.

FORESTALLING Law 23

Players occasionally need reminding that once a referee or umpire has been called he must wait until he is given permission to play the stroke. *If he rushes to play the stroke before the referee is ready and has given permission, **the referee is entitled to have the stroke replayed.***

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TR Report

The TR must issue a Tournament Report at the end of every event listing such things as, but not limited to:

- Names and number of Officiating Referees/Umpires per venue
- Duration of attendance by each officiator
- Details of any Appeals
- Breaches of the code of Ethics or Conduct
- Equipment issues
- Matters needing to be brought to the attention of the NRC (National Referee Committee)
- Matters needing to be brought to the attention of the Laws and Decision Committee.

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APPENDIX 1

ACA Refereeing Regulations May 2012 Updated 6 December 2013
Note addition to WCF Refereeing Regulations - Umpire: ACA Tournament Regulation 8

REFEREEING

In the following regulations the initials AC and GC should be taken to read Association Croquet or Golf Croquet as appropriate. For GC these regulations are to be read in conjunction with Rule 15 on Refereeing in the Rules of GC. It is not considered that these regulations in any way contradict the requirements of Rule 15. Where text is not qualified AC or GC it applies to both. The numbering/lettering format is in accordance with international usage.

The WCF version is identical to the version adopted by the ACA with the exception of the following Statement:

WCF Refereeing Regulations Effective Date: 20th April 2012 Version 1

Acknowledgement

The following regulations were developed first by the International Laws Committee [ILC] and adopted in 2010 by many of the major croquet nations for Association Croquet. The WCF GC Rules Committee then modified these regulations in 2011 so that they could also apply to Golf Croquet. We are grateful to both the ILC and GC RC for their work.

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NOTE: *In the following Regulations, the initials AC and GC shall be taken to read Association Croquet or Golf Croquet as appropriate. For GC these regulations shall be read in conjunction with Rule 15 on Refereeing in the Rules of C. It is not considered that these regulations in any way contradict the requirements of Rule 15.*

Where text is not qualified AC or GC, it applies equally to both.

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R1 Definitions

(a) Authorized Referee: A person nominated or permitted under these regulations to assist players by making decisions on laws and facts. *(See ACA Reg.8 'or a qualified Umpire nominated or permitted under these regulations to assist players by making decisions on facts'.)* An authorized referee can be performing one of several roles:

- (1) A **referee on request**, who generally may act only at the invitation of a player.
A referee on request is said to be **inactive** when first authorized. He becomes **active** when he responds to a request by a player to exercise a power or a duty or, exceptionally, **intervenes in a game**. He becomes **inactive** again when he quits the court believing that his duties have been discharged.
- (2) A **supervising referee**, who may act on his own initiative and thus is always active for games he is supervising. A supervising referee who looks after only one game is also called a **referee in charge**.

(b) Qualified Referee: A person on an official list of referees, but not necessarily authorized for the tournament.

(c) Tournament Referee: The official with responsibility for nominating and allocating authorized referees, and hearing appeals. The tournament referee is also an authorized referee.

(d) Qualified Umpire. A person on an official list of umpires but not necessarily authorized for the tournament. Umpires are limited to adjudicating on questions of fact not law.

R2 Powers and Duties of an Active Referee

The following powers and duties apply to both supervising referees and referees on request while active, subject to the restrictions in R4 on using certain information.

(a) General Powers and Duties

- (1) An active referee has power to decide all questions of fact and law/rule.
However, if a referee is asked to rule on a matter for which he is insufficiently qualified, he should seek advice from or refer it to an authorized referee who is able to deal with the matter.
- (2) An active referee must try to ensure that the match is played in accordance with the Laws/Rules of the game and conditions for the event.

(b) State of the Game

- (1) An active referee has the power to ask the players for information on the state of the game. He must do so when he requires it to make a decision, but

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- should otherwise avoid questions which might suggest a line of play. The players are obliged to answer to the best of their knowledge.
- (2) If an active referee has reason to think that there is any disagreement about the state of the game, he must investigate and settle the matter before play continues. This applies especially to a referee who is put in charge of a game that is already in progress.
 - (3) A referee must ask about any apparent discrepancy between the position of a clip and the course of play that he notices while he is active. [AC: This is subject to Law 23(b).]

(c) Ruling on a Past Incident that is in Dispute

The following regulations apply if an authorized referee is asked to rule on an incident that has already occurred:

- (1) The referee must tell the players anything he has seen that may affect his decision. He must hear what both sides have to say, and may question them. He has the discretion to hear other witnesses. He will then give a decision to the best of his ability.
- (2) The referee may declare a fault only on the basis of his own observations, the evidence of the striker, or, at his discretion, the evidence of well placed witnesses who have sufficient understanding of the laws/rules. He may not do so solely on the evidence of the adversary.
- (3) As a last resort the referee may give a compromise decision. This may involve arbitrary adjustment of the positions of the clips and balls, the number of [AC: bisques] [GC: extra turns] outstanding or the amount of time remaining and the order of play or even restarting the game.

(d) Forestalling

An active referee who observes or suspects that an error or interference is about to occur must forestall subject to the conditions that apply to the adversary [AC: under Law 23. He must not forestall while Law 23(b) applies]. [GC: He must not stop play if a player is about to run a hoop out of order or play a wrong ball other than his partner ball in singles.

(e) Before Watching a Stroke

If about to watch a questionable stroke, an active referee has the power to:

- (1) ask the player what stroke he intends to play. The player must provide the referee with this information.
- (2) choose the position from where to watch the stroke.
- (3) ask another authorised referee to watch the stroke from a different position and tell him what he observes.
- (4) tell the striker when he may play the stroke. If the striker plays before the referee is ready, the referee may order the stroke to be re-played.

(f) Referee Giving Information to Players

A referee may give information to a player subject to the following regulations:

- (1) If asked about the state of the game at any time, an active referee should do what he can to inform a player [AC: subject to (g) below].
- (2) An active referee must state the law/rule on any matter if asked by a player, and may volunteer it at his discretion.
- (3) A referee may explain the reasons for a ruling at his discretion, and must do his best to explain the reasons if a player asks him.
- (4) A referee may not otherwise give information or advice to a player. [AC: A referee must not state whether a ball has been moved or shaken when a wiring lift may ensue unless asked by a player or unless a fault has occurred.]

(g) [AC: Testing for a Wired Ball

Referees are reminded of the following laws:

- (1) A decision whether one ball is wired from another may not be given unless the striker is claiming a wiring lift. The referee must confirm that the claimant has not played a stroke in this turn and that the adversary is responsible for the position of the relevant ball. (Law 13(e)(1))
- (2) When judging whether one ball is wired from another, the benefit of any doubt is given to the claimant. (Law 13(e)(2))

(h) Adjusting Court Settings

An active referee may arrange for the settings of the court to be adjusted or for special damage to be repaired, where the laws/rules permit it. In doing so, he must:

- (1) consider the effect on any other game on the court.
- (2) AC: act consistently with Law 2(b)(5) (which forbids some types of adjustments), and Laws 3(a)(3) and 3(b)(3) (which place restrictions on adjusting a hoop or the peg).

(i) Entering the Court

A referee should go onto the court only when necessary and should be mindful of any double banked games.

R3 Powers of an Inactive Referee

An inactive referee may intervene in a game on his own initiative only in the following cases:

- (a) to ensure that play is lawfully continued after an error or interference is claimed or admitted, but only if the players appear unable to deal with the issue themselves and no referee is active. If one is, and the inactive referee has relevant evidence, he may offer himself as a witness.
- (b) on hearing a player give erroneous information on the Laws/Rules to his adversary.

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- (c) AC: if a ball is pegged out in breach of Law 38.
- (d) GC: under Rule 15(b)(4)(iii) if he is personally watching the game and is able to stop play immediately after the stroke in which a hoop is incorrectly run (as required by the International Ruling on this sub-rule).

R4 Restrictions on Using Information Obtained Earlier

(a) The following restrictions apply only to an active referee on request and to a supervising referee who is allocated to a game after it has started. They override the powers and duties specified in R2.

- (1) A referee may not use, or draw attention to, knowledge about the state of the game that he acquired while he was inactive.
 - (2) The same applies to knowledge acquired while he was active on a previous occasion, but only if at least one stroke has been played since he acquired the information.
- (b) These restrictions do not apply to knowledge relating to an issue:
- (1) to which a player has drawn attention; or
 - (2) for which the referee has intervened under R3; or
 - (3) which would be apparent to a referee who had not previously seen the game.

R5 The tournament referee and his duties

(a) Tournament Referee

The organizing body responsible for the tournament must arrange for the tournament referee to be appointed.

(b) Appointment of Deputy Tournament Referees

The tournament referee must appoint a deputy if he becomes unavailable at any time. If play occurs at more than one venue at the same time, he must appoint a deputy for each venue where he is not present or ensure that appeals can be made by telephone. Such a deputy has the powers and duties of the tournament referee while the latter is absent.

(c) Nomination of referees

The tournament referee has the power to nominate authorized referees from an official list of referees. If there are not enough qualified referees available, he has the power to nominate other suitable persons. These powers are subject to any conditions made by the organizing body responsible for the tournament.

(d) Allocation of Referees

- (1) The organizing body responsible for the tournament has power to decide whether authorized referees will be supervising or on request.
- (2) Subject to any such direction, the tournament referee may allocate himself or other authorized referees to supervise or be available to act on request for one or more games or courts.
- (3) Irrespective of any such direction, the tournament referee has the power to allocate himself or another authorized referee as a referee in charge of a game.

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- (4) The tournament referee must ensure that the players are told of any referees allocated to their game or court and whether they are supervising or on request.
- (5) If no referee has been allocated to a game, any authorized referee may act on request for it.

(e) Checking Courts and Equipment

The Tournament Referee must ensure that the courts and equipment are checked for conformity with the laws/rules, regulations and advertised conditions. Hoop Settings must be checked at the start of each day and may be checked between games.

R6 Appeals

(a) Grounds for Appeals

Appeals may be made by a player against a decision of a referee only on:

- (1) questions of law/rule, regulations or tournament conditions; or
- (2) [AC: rulings under Law 55; or]
- (3) compromise decisions under R2(c)(3).

(b) Power to Hear an Appeal

The tournament referee or a deputy tournament referee has the sole power to hear and decide appeals, except that if such an official is a party to the appeal, either as a player or referee, someone independent must be appointed to do so.

(c) Appeals are Final

The decision on an appeal is final for the game.

(d) Limit of Claims

A player cannot appeal if he has played a stroke after the ruling was given, or [GC an opponent has played a stroke.]

[AC if the opponent has played two strokes. However, in a singles game, if the adversary is absent and performing official duties, the adversary may appeal before the first stroke of his next turn.]

(e) Reporting of Appeals

If a situation that is subject to appeal does not seem to be covered by the laws/rules or commentary, the tournament referee must report the facts and the decision to the appropriate national association for reference to whichever of the International Laws Committee and the WCF GC Rules Committee is appropriate.

R7 Players Performing Functions of Referees

(a) Players who are Qualified Referees

Players who entered the tournament and who are qualified referees may act as

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referees on request, unless the tournament referee or the organizing body responsible for the tournament direct otherwise.

(b) Other Players

Unless the tournament referee directs otherwise, all experienced players in the event may decide the following matters, but only if requested by the striker or his opponent:

- (1) watch a stroke to decide:
 - (A) where a ball crosses the boundary.
 - (B) [AC: whether a ball hits the peg or another ball.]
 - (C) [AC: whether a ball is moved or shaken, but only if specifically asked.]
- (2) decide whether a ball:
 - (A) is on or off the court.
 - (B) breaks a plane of a hoop.

R8 Other Regulations

(a) The presence of a referee does not relieve a player in a game of the duty to draw attention to an irregularity that he thinks the referee may have overlooked.

(b) [AC: The organizing body of a tournament may modify these regulations in accordance with Law 54.]

(c) Only an authorized referee may intervene in a game. However, any qualified referee may report a problem to the tournament referee or his deputy.

APPENDIX 2

Tournament Hoop Setter (THS)

The THS:

- **Reports to, and is under the direction of, the TR.**
- Assists the TR in ensuring the **Regulations** are met with regard to **Hoops and Setting, Ball Specification and Inspection Requirements**.
- Shall appoint a team of hoop setters (HST), sufficient in number to ensure daily coverage of all courts in use at the venue throughout the full duration of each play and practice day of the event.
- Shall provide the TR with a daily roster of the HST members.
- Is directly responsible for the appointed Hoop Setting Team members.
- Shall train and instruct the HST using the National Referee Committee recommended Referees Hoop Setting Programme Guidelines regarding their duties and responsibilities.
- Ensure the HST is equipped with the necessary equipment to fulfil their duties. i.e. setting brackets, spirit level, wedge gauge (feeler gauge international events), hoop lifter, measuring stick, hoop setting tools, packing and repair materials.

The THS shall ensure the HST fulfil the following duties:

1. HST members shall when necessary be aware of which ball is the largest ball in use on each court.
2. Ensure to the best of their ability that assigned sets of balls remain on the allocated court in their designated sets.
3. **One hour before play** each day ensure;
 - The correct sets of balls allocated to each court are in place on the assigned court.
 - **International Events** - Only the designated "largest ball" of the sets allocated to the court being set is used for setting and indicated to the court referee for testing purposes.
 - Court setting and equipment to be correctly prepared daily in readiness for player practice in accordance with the Laws of Association Croquet, 6th Edition,

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Advanced Singles together with their associated Official Rulings and commentary on the Laws. Inclusive of:

Ball stops
Corner flags
Corner pegs
Peg
Hoops
Ball (first & second colour)

4. **15 minutes before play** commences for the day;
 - Assist the assigned court referee to check, and re-set where necessary, any hoops which have moved from the desired tolerance setting during the player practice session.
5. **During Play;**
 - Re-set hoops on the authority of the assigned court referee.
 - When authorized by a tournament referee - Check the setting of hoops for compliance with tolerance after every game and between matches.

HST members are not to enter courts where a game is in progress without the specific authorization of the assigned lawn referee.

- HST members may start to check and re-set hoops between games where both games on a lawn have been completed; they should then notify the assigned lawn referee when the lawn is ready to be checked and authorized for the next game to commence.
- Keep a supply of both hoop packing material and a small amount of grass clipping available for setting and repair purposes.

Divot and special damage may only be repaired on the specific instruction of an authorized referee of the tournament.

6. **Close of play each day;**
 - Clear courts ensuring all ball sets remain in the allocated, paired sets and stored in the assigned package or box for the evening.
 - Daylight permitting check courts and in particular hoop runs, for repairable damage spots and report to the THS/TR for authorization to repair.

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APPENDIX 3

ACA's Officials' Code of Behaviour

The duties of an ACA referee is to act as an impartial judge of sporting competition and this duty carries with it an obligation to perform with accuracy, consistency, objectivity and the highest sense of integrity.

In order to preserve and encourage confidence on the professionalism and integrity of officiating, officials must first display ethical behaviour.

- Operate within the rules and spirit of your sport, promoting fair play over winning at any cost.
- Encourage and support opportunities for people to learn appropriate behaviours and skills.
- Support opportunities for participation in all aspects of the sport.
- Treat each person as an individual.
- Display control and courtesy to all involved with the sport.
- Respect the rights and worth of every person regardless of their gender, ability, cultural background or religion.
- Respect decisions of officials, coaches and administrators in the conduct of the sport.
- Wherever practical, avoid unaccompanied and unobserved one-on-one activity (when in a supervisory capacity or where power of imbalance will exist) with people under the age of 18 years.
- Adopt appropriate and responsible behaviour in all interactions.
- Adopt responsible behaviour in relation to alcohol and other drugs.
- Act with integrity and objectivity, and accept responsibility for your decisions and actions.
- Ensure that your decisions and actions contribute to a harassment free environment.
- Do not tolerate harmful or abusive behaviours.
- Place the safety and welfare of the players above all else.
- Be consistent and impartial when making decisions.
- Address unsporting behaviour and promote respect for all people.

Note 1: All Referees are expected to be registered with their State Authority responsible for the safety, welfare and care of young people. For example referees resident in Queensland should hold a valid "Blue Card", in Victoria "Working With young People Check".

Note 2: Until ACA produces its own Health, Safety and Adverse Weather Policies, the policies of the State in which an ACA event is held will apply.

APPENDIX 4

ACA AGM 25th March 2013 the Council unanimously agreed to adopt: The WCF Sports Regulations Appendix 7 Impasse Rule (Association Croquet)

1. Identification of an impasse

1.1 A Referee may declare that an impasse exists if, in the Referee's opinion, the tactical situation is not evolving and neither side appears to be willing to attempt to score a point or otherwise to make a tactically significant move.

1.2 Such a decision may be made in response to a claim by either side that an impasse exists or by a Referee appointed to be in charge of the game by the Tournament Referee even if no such claim has been made.

1.3 If a claim is made but the Referee decides that there is no impasse, play will continue normally. The Referee will monitor the game until the tactical situation changes significantly, or until the Referee decides that an impasse now exists.

2. Procedure following declaration of an impasse

2.1 Once the Referee has declared an impasse, play will continue normally for:

2.1.1 **ten further turns**; or

2.1.2 **twenty further turns** if there are **only two balls in play and both are for the peg**.

2.2 If the impasse still exists at the end of this period, play will proceed as follows:

2.2.1 all balls still in play are removed from the court and then played back into the game from baulk. *Except in 2.2.4 below*, the clips are not moved. **A coin toss will decide which side may choose to play first or second**, unless there are only three balls remaining in the game, in which case the side with two balls will play first.

2.2.2 **If there are three or four balls still in play, the game shall proceed normally.**

2.2.3 If only two balls remain in the game, which are not both for the peg, play shall proceed normally except that no roquet will be allowed until the earlier of:

(a) **the first stroke of: the eleventh turn after the restart**; or

(b) **the first turn after a turn in which the striker's ball scores a hoop point for itself.**

If, during the prohibition on roquets, the striker's ball hits the opponent ball, the stroke will be treated as though the opponent ball were dead.

2.2.4 If only two balls remain in play and both are for the peg, a tie-break shall be played in which the last four hoops and the peg are contested. Both Players are entitled to lifts under Law 36 of the Laws of Association Croquet. The winning score will be recorded as 26-25.

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