

TECHNICAL OFFICIAL'S MANUAL



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If you find any errors or omissions, or can suggest ways to improve the contents, please send comments to:

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1 ROLE OF THE UMPIRE/OFFICIAL

- In Curling, as in most sports, umpiring is performed by dedicated volunteers without whom the sport could not progress
- The role of the Umpire has been established to ensure fair play between two or more teams in any competition. Umpires act as a complement to the game, working with the teams in a fair and neutral manner within the rules of the game and intervening only to make a correction or following a breach of the rules
- Umpires' decisions must be made in fairness and sound judgement relative to the rules in the World Curling Federation "Rules of Curling and Rules of Competition" booklet
- All Umpires must have a thorough knowledge of the rules, their interpretation and implementation. Within the umpiring system, dependent on the assignment, the Umpire should have a sound knowledge of officiating procedures, the record sheets, scoreboards, measuring devices, hog line procedures, statistics and time clocks. These all play an important part in the smooth running of any competition
- The game is first, and foremost, for the curlers and the role of the Umpire is secondary

2 OFFICIALS: ENFORCERS OR LEGISLATORS?

Extracts from an article by Kevin Merkle (Associate Director Minnesota State High School)

Officials must remember that their job is one of enforcers, much like a police officer. When officials decide what rules to enforce, they become legislators – or rule makers – and that is not their role. Just as it is not the role of the police officer to decide whether or not to enforce a particular law, or to "make up" the laws that they will enforce.

There will always be some inconsistency, but when officials decide which rules to enforce, they are manipulating the game and creating much more inconsistency. This causes frustrations for players, coaches, and fans and leads to problems with sportsmanship and criticism of officials.

The interpretation of rules cannot be dependent upon the opinion of an individual official or even a group of officials. Coaches, players, and fans deserve to know how the rules will be enforced and should see little variance from game to game.

Consistently enforcing the rules as they are written will lead to events that will be better and more enjoyable for players, coaches, fans – and officials!

3 WCF TECHNICAL OFFICIAL'S AGREEMENT

Role of the Technical Official (Umpire/ Timer)

It is of vital importance that all Technical Officials are professional and dedicated to providing and maintaining fair and equitable playing conditions in order to allow the sport to be played to the highest level.

Technical Officials must have an extensive knowledge of the rules and treat all those involved with a competition with courtesy and respect.

Everyone must commit to the competition the required number of working hours to ensure an equal workload for all Technical Officials.

The Chief Umpire must prepare the Team Meeting Document together with the Technical Delegate for the event and participate in Conference Calls as required.

It must be remembered that a competition may be judged by how competent the officials are. Every Technical Official is a vitally important member of the Officiating team and as such it is their responsibility to ensure they fulfil all of their obligations and responsibilities including fair play and impartiality throughout the competition.

All Technical Officials must be in a good health condition, so they can fulfil their role at the event.

Code of Conduct for the Technical Official:

Technical Officials are in a position of trust and responsibility and as such the following code of ethics should be followed:

- Technical Officials must be impartial in respect of all participating athletes. They should be prepared to converse with athletes and coaches on a general level (i.e. non-specific information) and with the Chief Umpire and WCF Head of Competitions / Technical Delegate on matters regarding rules and officiating
- The Chief Umpire is the only person to answer questions from the media about officiating decisions and rulings. Remember that there is no such thing as an “off the record” comment, so be careful what is said
- Good working relationships between the athletes, coaches, other officials, ice technicians, media and site personnel are expected. Respect everyone’s job assignment, roles and duties.
- All decisions shall be made quickly and fairly, in accordance with the rules, without being officious. At no time will score, individuals, or biased spectators influence any decisions. Never put yourself in a position, real or perceived, of being partial in any situation
- Never become involved in any betting in a competition where you are a Technical Official
- Consumption of alcoholic beverages during a competition should be done in moderation. Alcoholic beverages may not be consumed within 6 hours prior to, or during any game that you are working. After discussions (e.g. – the person involved, the Chief Umpire, etc.) the WCF Head of Competitions, or the WCF Technical Delegate, may suspend from the competition any Technical Official for violating basic common sense with alcohol
- Comments about any aspect of the competition, officiating decisions or the rules of curling should only be discussed amongst the Technical Officials – not in the presence of other people or media
- The WCF will set the dress code for all Technical Officials. An official should wear appropriate attire at all Event functions (i.e. – no blue jeans). The Field of Play clothing shall be black pants and a special jacket (supplied by the local Organising Committee or the WCF). Outside the curling facility (public places) the official clothing should not be worn, unless it is to go directly from the venue to the place of residence
- A neat and clean personal appearance and proper conduct is essential at all times
- A Technical Official should ensure that they have had enough rest so that their mind is fresh and alert. Umpires, in order to present the best impression during games, should be seated or standing, not leaning against the boards. Technical Officials should not be in the Field of Play without reason during games (i.e. - should not be in the Field of Play taking pictures)

- Technical Officials should uphold the principles of the officiating system and the philosophies of the WCF at all times, but maintain a degree of flexibility to avoid confrontation with the Organising Committee, teams, WCF Executive Board and the media
- Technical Officials should never become more than casually involved socially with any specific team or athletes during the competition. There should be full disclosure to the WCF if there is a personal or business relationship with an athlete or coach. It is acceptable to speak with and be around teams socially, but Technical Officials should be careful not to be found in a position of spending an excessive amount of time with one team or athlete
- During the competition, the Chief Umpire and all other Technical Officials should be at the venue in enough time to prepare for every practice and game. All of the Technical Officials assigned to the competition must abide by the work schedule approved by the Chief Umpire. In the absence of the Chief Umpire, the Deputy Chief Umpire will be in charge and assume the duties of the Chief Umpire
- When holding a Chief position (Umpire/Timer), a report must be submitted to the WCF Head of Competitions within 30 days of the conclusion of the competition
- Disciplinary action of a Technical Official will be determined and administered by the WCF Discipline Committee (minimum of three persons: WCF President or Vice President; one Executive Board Member or Secretary General; and the WCF Head of Competitions or WCF Event Technical Delegate). Technical Officials who do not follow these rules of conduct may not be considered for future WCF competitions

The above conditions apply throughout the duration of the competition and its functions (arrival to departure).

Agreement Points:

- 1) I accept the assigned role and agree to follow the Code of Conduct.
- 2) I agree to fulfil all my obligations and responsibilities including fair play and impartiality throughout the competition.
- 3) I understand that the WCF must provide the proper support so that I can fulfil the duties and responsibilities of the position.

Competition(s) & Position: Championship – Role

Read and agreed: Name: _____

Signature: _____

Date: _____

4 TECHNICAL DELEGATE

The Technical Delegate (TD) for each WCF event is recommended by the WCF Head of Competitions and approved and appointed by the President and Secretary General. The role of the TD at these events is to be the voice of the WCF and ensure the competition is played within WCF rules, policies and procedures.

A document with all the responsibilities for the TD and ITOs is attached at point 17.1

5 CHIEF UMPIRE (CU)

5.1 CHIEF UMPIRE – DUTIES & RESPONSIBILITIES

The position of Chief Umpire (CU) is one that should receive respect from players, coaches, other Umpires, host committee, and representatives of the organisation governing the competition. In order to gain and retain this respect, CUs must be aware of their conduct 24 hours a day during the time of the competition and must keep the following points in mind:

The CU must demonstrate qualities of leadership and the ability to negotiate and arbitrate effectively.

- Never become more than casually involved socially with any specific teams or players for the duration of the competition. It is important to remember that appearance of bias or conflict of interest must be avoided
- The CU is the primary contact between the Umpiring team and the TD
- Ensure the WCF rules and policies (e.g. – brushing, crestring, etc.) are followed and resolve issues as they arise
- Mentor the entire Umpire team, especially the Deputy CU
- Ejecting a player or team official – A Chief Umpire (CU) at a WCF event has to be prepared and willing to apply rule C10(g) if the circumstances so require. The CU then has to make a recommendation to the WCF if any further action or sanction is required

DUTIES

PRE-COMPETITION

Together with the WCF Technical Delegate (TD), prepare the Competitor's Guide / Team Meeting Document (CG-TMD) for review by the WCF Head of Competitions prior to the WCF office sending it to the teams. The Chief Umpire must also be prepared to participate in Conference Calls as required.

Consult with the WCF TD regarding:

- transportation and accommodation arrangements for the Umpires
- time and location for pre-competition meetings
- arrangements for meals
- arrival / departure times of Umpires
- a list of all team's light and dark clothing colours and approved sponsors
- preparation of a working schedule for the Umpires. Make it available to them, the TD and results team in advance of the competition
- the set-up of the Umpires' room with the help of the Umpires
- ensuring sufficient copies of all necessary forms are available

- the pre-competition checks of the ice and facilities. Liaise with Ice Technicians regarding stones, ice conditions, game and practice procedures, and when umpire measuring practice can take place
- a meeting with the Umpires and Chief Timers to review rules and procedures
- ensuring competition volunteers are informed about their duties
- tasks assigned to the Umpires for the Team Meeting and the pre-competition practices
- confirmation of the persons sitting on the coach bench.
- assisting the TD in conducting the Team Meeting

DURING THE COMPETITION

- Be available to the coaches and teams at least 45 minutes before draw time
- If required, collect team line-up changes and communicate changes to Chief Statistician and Media Relations Officer
- If required, update Last Stone Draw database for each draw and collect event data (e.g. – number of ends, number of blank ends, etc.)
- Be an extra pair of eyes for the Game Umpires and time clock operators
- Monitor players' and coaches' uniforms and crests to ensure they conform to guidelines
- Make decisions when Umpire rulings have been appealed
- Ensure all competition forms are correctly completed
- If required, before the last round robin draw ensure there is a live microphone available to announce the play-off scenarios
- If required and practical, immediately announce the play-off scenarios at the end of the round robin
- Assign ice for play-off games in consultation with the Chief Ice Technician and the TD or WCF Head of Competitions, if not pre-determined in the draw or by television
- Meet with representatives of the play-off teams after the last round robin game to discuss stone selection, sheet assignments, special practice times, etc. for the play-off games. This process will be repeated after each game
- Assign Umpires to the play-off games and special practices
- Oversee the placing of selected stones on to the game sheet for play-off games
- Give support if necessary to the TD or Medical Officer for doping procedures
- Oversee media requests in conjunction with the WCF Media Relations Officer
- For events with Sportsmanship awards, distribute ballots to all teams just before their last round robin game. Ballots are to be returned to the CU before the teams leave the venue that day. The CU shall be the only person to tabulate the result, keeping it confidential, only informing the TD
Note: The DCU is responsible for CU duties should the CU not be available

POST COMPETITION

- Return competition equipment to the OC, or pack to be returned to WCF
- Prepare and submit the CU Report to the event TD within 30 days of the conclusion of the competition

5.2 BRUSH MARKING

4th player



3rd player
(Male in Mixed Doubles)



2nd player
(Female in Mixed Doubles)



1st player



Alternate & Coaches



PROCEDURE FOR RANDOM BRUSH CHECK

- Determine the number of draws at which brush checks will take place. As this was a dual event (both men's and women's competitions) it was felt that the same number of checks should be done in each gender. The Chief Umpire and Deputy Chief Umpire decided that brush checks would be done at two draws in each gender. There were seven draws each of men's and women's games so playing cards numbered 1-7 were shuffled and two cards selected for each gender. Each draw was made from all seven cards
- Determine on which sheet of ice the brushes will be checked. A set of four cards numbered 1-4 (representing Sheet A to Sheet D) were shuffled and a card was drawn from the four for each draw on which brush checks would take place
- Determine at which delivery position the brush to be checked starts the game. A set of four cards numbered 1-4 (representing first to fourth player to deliver stones) was used to determine which brushes would be checked, as four players start the game. It was also decided that in view of the fact that this was a random check, the brushes of the players from both teams on that sheet at the selected position would be checked. A card for the alternate position was not required because if the alternate enters the game, he/she must use the brush of the player who is leaving the game. The positions were recorded but not matched up with an actual player's delivery position and tape colour until the game had begun. (Rationale: up until game time, a team may change its line-up. Also, if an alternate enters the game, the order in which the players deliver can be altered. Therefore, if the number 2 is drawn, the brush of the person who starts the game delivering second stones would be checked)
- The brush check was conducted at the end of the game. (Rationale: it is not necessary to do the check at the beginning of the game because if a brush is found to be non-compliant, the team must forfeit the game anyway. Secondly, it avoids disrupting a team's physical and mental preparation before the game)

5.3 CHIEF UMPIRE'S CHECK LIST

Upon arrival, obtain from the TD / OC the following contact information

- _____ Doctor / Hospital
- _____ Ambulance
- _____ Team hotel
- _____ Umpire hotel
- _____ Chief Ice Technician
- _____ WCF Head of Competition and/or WCF Technical Delegate
- _____ Contact of the OC
- _____ Transportation

Stones

- _____ Which stones are to be used at the event
- _____ Stone information & numbers distributed before the teams' first practice

Additional items to check with the appropriate source

- _____ Date, time and venue (suitable size & seating) for Team Meeting, scheduled during or prior to team practice day, equipped with a microphone
- _____ Assist (if required) the WCF office to list arrival/departure dates and times for Umpires and accommodation in single rooms with bath/shower and washroom
- _____ Accreditation for all Umpires allowing them entry to all necessary areas of the arena
- _____ Transportation to and from place of arrival and hotel, and to and from arena and hotel
- _____ Make initial contact with members of umpiring crew
- _____ Determine source and items that are supplied for the Umpire's on-ice uniforms
- _____ Check meal arrangements for the Umpires
- _____ Opening and Closing Banquet tickets for each Umpire
- _____ Event pin and programme for each Umpire
- _____ Public address system available at the arena for the appropriate times with roving microphone
- _____ Ensure arena staff is aware that one-hour evening practice ice is available for teams during the round robin stage. (e.g. – lights on and emergency phone lines reachable by Umpire in charge of practice). Also, transportation has to be available for teams and Umpires after practice if hotel is not within walking distance. Local medical service in attendance if possible
- _____ Access to drinking water for the athletes

Umpires' Room

- _____ Large enough to accommodate all Umpires comfortably
- _____ Sufficient hanging space for Umpires' clothing
- _____ Sufficient tables and chairs for the Umpires
- _____ Waste bins
- _____ Lockers for personal belongings if possible (specify if Umpires need to provide locks)
- _____ Refreshments provided (hot and cold)
- _____ Lockable Umpire room with a minimum of 2 keys
- _____ Radios and earpieces, batteries or chargers
- _____ Umpire work schedule prepared and posted
- _____ Draw posted
- _____ Sufficient copies of all forms
- _____ Internet connection
- _____ Printer

Volunteers

- _____ Arrange date, time, and location for volunteer training / meeting
- _____ Schedule for volunteers, drawn up by supervisors, copies to CU
- _____ Collection/return station for volunteer equipment

Arena and Ice

- _____ Federation / Association name boards and scoreboard numbers sorted
- _____ Arena Clock – easily seen by all officials and players, official time for games
- _____ Carpet cleaning – ensure the ice or cleaning staff will vacuum on-ice carpet daily and between each session if possible
- _____ CU/DCU table and chairs (2)
- _____ Location of the tablet for entering the team line-ups
- _____ Coach and alternate bench – suitable positions behind each sheet, correct number of places for each team, dark and light positions marked to match the in-ice stone colours
- _____ Sufficient power points (electrical outlets) available for each team (2)
- _____ Windows and doors are covered to prevent sun/day light from having an adverse effect on the ice
- _____ Confirm home end, sheets marked A, B, C, etc.
- _____ Time clock operator positions marked with A, B, C, etc.
- _____ Toilet access during games
- _____ All rooms clearly signed (e.g. Changing Rooms, Medical, Physiotherapist, Umpires, Doping, etc.)
- _____ Location to post evening practice booking sheets if not pre-allocated
- _____ Check with Ice Technicians when on-ice pre-competition check can be done
- _____ Number and accuracy of measuring sticks and LSD measures
- _____ Locations of measuring devices in FOP
- _____ Determine FOP access and travel time for coaches for time-outs
- _____ Location of volunteers' room/lounge, if one is available
- _____ Location of teams' changing rooms
- _____ Changing rooms for opposite gender coaches
- _____ Location for storage of kit bags or personal items brought to the FOP

Media and Broadcasting

- _____ Media bench access
- _____ Location of WCF MRO on the media bench
- _____ Location of the Mixed Zone
- _____ Liaise with MRO to control FOP numbers, proper dress, footwear and conduct
- _____ TV Schedule – copies to all teams and Umpires
- _____ Any special requests from broadcasting

Forms

- _____ Original Team Line-up
- _____ Game Team Line-up
- _____ Change of Team Line-up
- _____ Draw Shot Challenge
- _____ On-Ice Official's Scorecard
- _____ Game Timing
- _____ Hog Line Violation (in CU Manual if required)
- _____ Violation Chart (in CU Manual if required)
- _____ Procedure for Evening Practice
- _____ Reservation Sheet for Evening Practice – 4 or 5 sheets OR Pre-Allocated Evening Practice Schedule
- _____ Play-Off Game Information
- _____ Stone Selection

Documents

- _____ Team Meeting Document
- _____ Pre-Game Practice script
- _____ Pre-Game Timing Protocol (countdown)
- _____ Rule books for umpires and teams
- _____ Stone list
- _____ Checklists for sponsor crests, uniform colours

5.4 ON-ICE PRE-COMPETITION CHECK

TEST MEASURING

- Test measuring must be done during the preparation day
- Carry out different measures, e.g. block-measures, biter measure, two, three and four stone measures with the micrometre but also a visual measure
- Know approximate distances for LSD stones measured at the 4-foot, 8-foot and 12-foot circles
- Practice LSD measurements and enter results in tablets (including two-point measurements)
- GUs are to be comfortable with all measuring devices
- GUs are to get confirmation from both teams before moving any stone after completion of the measures (LSD stones only if observer present)

Make sure all measures are placed on ice!

Micrometre Measuring Stick(s)

- _____ Assembled correctly
- _____ Gauge slides smoothly and feet slide easily on ice
- _____ Measures *without* adjustable feet will clear sideboards
- _____ Perform test measures
- _____ Determine how close to the centre hole a stone can be measured

Biter Stick(s) - Six-foot measure

- _____ If using 2, ensure both same length and mark 'home' and 'away'
- _____ Conduct measures using a stone and/or straight edge in several locations in every house, home & away end; especially the 6 o'clock positions

Block / 90° square

- _____ To assist in some visual measures

Tape / Digital Measures for LSD

- _____ Set to metric with gauge arrow pointing towards stone
- _____ Determine the readings are identical on all measures (on one placed stone)
- _____ Confirm that the minimum reading is 0.1 cm
- _____ If two or more measures are used, mark each one with the letter of the sheet(s) on which they will be used
- _____ Cool measures on the ice prior to the first pre-game practice, and then store off-ice between draws
- _____ Spare batteries available

Laser Measures for LSD

- _____ Ensure the measure has two fresh 'AA' batteries and assemble the main base (if necessary), making sure laser is facing towards centre pin. Screw the laser device onto the base: do not over-tighten
- _____ The broad conical locator pin of the measure should be held in a warm hand for a few moments, then placed in turn into each hole and rotated gently through 360 degrees, so that it beds gently into the drilled hole and will hold the measure securely whilst measuring
- _____ After switching on the measure, check the laser is set for the default position for measuring: this is the position which MUST be used
- _____ Check the laser measure beam hits the striking band of a stone placed at the edge of the 4-foot and 12-foot circles when the measure is located in the centre hole
- _____ Direct the beam to middle of the striking band of a stone placed at edge of house. If necessary, adjust height of front plate to maintain this level. Check the stone at the edge of the four-foot circle. If correct, no further adjustment is necessary
- _____ Check the readings are identical on all measures (on one set stone)
- _____ If two or more measures are used, mark each one with the letter of the sheet(s) on which they will be used
- _____ Cool measures on ice prior to the first pre-game practice, and then store off-ice between draws

Ice Measurements / Stones

- _____ Ensure centre holes & LSD measure holes have been drilled to correct depth, width and location
- _____ Confirm accuracy of circles and other FOP measurements including distance from hog line to Eye on the hog magnets
- _____ Confirm installation of the courtesy lines
- _____ Confirm installation of the wheelchair lines
- _____ Confirm installation of the Mixed Doubles "positioned" stone points
- _____ Confirm procedures with Ice Technician for checking and changing/replacing hog line sensor handles during games
- _____ Verify the stone serial number matches the appropriate handle (including spares)
- _____ Verify all stones are on the correct sheet

Scoreboards

- _____ Federation / Association name boards in both colours (2 dark, 2 light unless combined men's and women's events when 4 of each are required)
- _____ Marked with A, B, C, D, corresponding to sheets
- _____ Boxes containing numbers (0-9), X, W, L, '/' (when a team runs out of time), hammer indicators, asterisk (LSFE)
- _____ For Mixed Doubles in addition: one P (Power Play) and a set of numbers (0-6) in each colour for each scoreboard
- _____ If electronic boards, ensure all are functioning properly

Time Clocks (number of sheets plus one spare)

- _____ Clocks mounted and working
- _____ Clocks positioned so that players and coaches can easily see them
- _____ A, B, C, D, marked on each clock and indicated on timers' bench
- _____ Check sight lines for operators

Other Items

- _____ Padded chairs at both ends for Umpires and on-ice assistants
- _____ Blankets & insulation (Styrofoam or similar) for under chairs if required
- _____ Boxes of tissues and waste bins (bins emptied after each session)

5.5 CHECKLIST FOR LIAISON WITH RESULTS TEAM

The CU (and TD) should discuss the following points with the Results team:

- Team Meeting
 - Location, time, how to get there
 - Results distributes the Original Team Line-up form to each team, include other things that might need to be distributed (e.g. – rule books, stone list, etc.)
 - For information: Results will not be printed for the teams, all details are available on the WCF website
- On-ice Official Forms and Timing Forms
 - Will be provided by results team for the entire competition and brought to Umpires' room
- Electronic Line-up system CuCoS (Curling Coach System)
 - The exact location for the tablet (usually on the CU table)
 - Instructions and code for CU and DCU will be given at the team meeting
 - For each line-up change after warm-up or during the game, don't forget to inform the results team by radio before the change happens
- Last Stone Draw (LSD)
 - Electronic system CuUmS (Curling Umpire System) will be used
 - When could the training with the umpires be done?
 - What kind of measuring device (tape, laser) will be used? What is the measuring distance correction if lasers are used?
 - The LSD Control Sheet will be printed and placed on the CU table, so players/coaches can see it when they enter the line-up and the LSD players
 - Delivery of LSD thrower control sheet to FOP before first LSDs
 - A special copy of the LSD Control Sheet will be delivered to the CU when a team turns yellow (e.g. – when specific players must play in the next session to fulfil their LSD requirement)
 - After the LSD of the last round robin session has been played, and after the approval of DSC by the CU, the report will be directly distributed to all teams on the coach bench
- Line-ups
 - How many copies are needed for the umpires? Usually one per sheet or per game umpire plus one for the CU.
 - Delivery to FOP
- Results need 1 Umpire Radio
 - Mainly to listen (hog line violations, time-outs)
 - For line-up change communication
 - Results confirmation
- Results Confirmation
 - What is the shortest way to do (depending if results can see the scoreboards on the FOP or not)?
 - Sheet Alpha confirmed (if visible for results)
 - Sheet Alpha, DEN 8, GER 6 after 7 ends (if not visible for results)
 - Depending on game time, the Chief Timer might ask for radio silence. In this case, the confirmation will be done after that silence

- Report distribution to office
 - Which reports are requested as a printout (and how many copies)?
 - Does Doping Control need a Line-up? Where are they located?
- Umpire schedule (if a public videoboard is used)
 - Who is on duty and when (do not need the sheet allocation, just the names)?
 - Check Technical Official's names for scoreboard
- TV games schedule
 - Any specific changes for TV games? (e.g. – start time, breaks between ends, etc.)
- Videoboard / LSD TV
 - During LSD measurement, the screen with that information must have priority
- Post Round Robin procedures
 - Results needs the stone colours and LSFE (hammer) information as soon as the CU has met with the teams
 - Sheet assignments and times to be confirmed
 - Umpire schedule for upcoming sessions needed
 - Based on this information, additional On-ice Forms and Timing Forms will be printed and brought to the CU's room
- Any other topics

Forms and Reports produced by Results

- Original Team Line-up (for team meeting)
- On-Ice Official's form (with two pages, one "official" to sign, second one for incidents)
- Timing forms (including the control of team time-outs)
- LSD Control Sheet (indicating the number of stones each player delivered for each rotation)
- Entry List (with players and coach)
- Extended Entry List (with players and all team officials, to control access to bench)
- Line-ups (for all games of the session)
- Results and Standings (all games of that session, standings for all groups)
- LSD thrower control sheet
- Game Results (for each game, with LSD details and statistics if available)
- Game Shot by Shot (graphics, only when stats are done)
- Competition Matrix (grid to easily see which team beat which another teams)
- Draw Shot Challenge (updated after each session)
- Competition Summary (all games, round robin standings, play-off chart)
- Final Ranking (only at the end of the competition)
- Statistics Reports

5.6 UMPIRE EQUIPMENT

	Last Stone Draw (LSD) Measures
	Biter Sticks (6-foot measures)
	Micrometre Measure
	Radios, earpieces & adequate number of chargers and outlet-strips (special box inside the equipment box)
	Blocks (90° square) – to assist with visual observations
	Clipboards
	Pens
	Stapler & refills
	Scissors
	Tape dispenser & refills
	Roll of black tape (to cover any unauthorized crests)
	Paper punch (European 2 hole and/or 4 hole)
	Stationery equipment (paperclips, sticky notes etc.)
	WCF Rule Books
	Electrical adaptors kit
	Multi-plug extension cord
	Pocket knife
	Duct Tape
	Micro-fibre cloths for stone cleaning – Wheelchair & Mixed Doubles events

5.7 TEAM MEETING AGENDA

- Confirmation of teams present (checked by Umpires as teams enter)
- Introduction and Welcoming Comments (WCF President, Board members, OC)
- Welcome ITOs (Umpires, Ice-Techs, Result and WCF Media)
- Original Team line-up
- Game Team line-up
- Change of Team line-up
- Team Health Information Form
- Doping Control
- Team Information Communication
- Warm-up Area Etiquette
- Ice Access
- Rules
- System of Play
- The Draw / Schedule of Games
- Games
- Stones
- Colour of Stones
- Playing Uniforms
- Game Timing
- **Placing of Stones in Mixed Doubles competitions**
- Team Time-outs
- Technical Time-outs
- Position of Players
- Last Stone Draw
- Practice Before Round Robin Games
- Practice Control
- Draw Shot Challenge
- Team Ranking Procedure
- Evening Practice or Pre-Allocated Evening Practice
- Practice for Post Round Robin Games
- Stone Selection for Post Round Robin Games
- Chief Umpire Meeting with Teams for Post Round Robin Games
- Scoring
- Measures
- Improper Conduct
- Ice Abuse
- Hog Line Violations
- Post-Game Procedure
- Coach Bench
- Drinks
- Kit Bags / Clothing
- Tidiness
- Mobile Telephones & Communication
- Smoking
- Decision Making
- Errors or Omissions
- Etiquette
- Questions

5.8 POST ROUND ROBIN MEETING

Teams involved, or potentially involved, in post round robin games must be informed at the end of their last round robin game that their presence is required, together with the location and time of the meeting.

The teams (a maximum of two persons per team – player and/or coach) will meet with the CU / DCU 15 minutes after the last round robin game. Any team decision(s) must be made before leaving the meeting. A team that does not attend a post round robin meeting, or is not prepared to make a decision, forfeits the game choices (e.g. – LSFE, stone colour, etc.) to which the team is entitled. **However**, with approval of the CU, game choices may be submitted earlier in writing and then the team(s) do not need to attend the meeting.

Failure to comply shall result in that team's opponent being given those choices. If both teams fail to attend or make a decision, the CU will decide the game choices.

Mobile phones, or use of any other forms of electronic communication, are not permitted once the meeting has begun.

Co-operation is requested to not release any information on social media for 15 minutes after the meeting finishes to allow the WCF MRO time to update and post the decisions.

5.9 POST ROUND ROBIN STONE SELECTION

PLAY-OFF GAMES

- Handles cannot be changed from stone to stone
- When stones can be used from various sheets the selected stones do not all have to come from the same sheet but must be the same colour
- Teams may select 10 stones of the same colour from the sheets designated by the CU. At the end of the pre-game practice the teams must declare their 8 game stones and 2 reserve stones (except in Mixed Doubles)
- The reserve stones, which are placed on an adjacent sheet, may only be used if a game stone is damaged and becomes unsuitable for play. A team can decide to change one or 2 stones
- For Mixed Doubles the team must select 8 stones of the same colour from the sheets designated by the CU. At the end of the pre-game practice the teams must declare their 5 stones, one spare stone and 2 “positioned” stones
- Teams will advise the CU in writing (stone selection form) no later than 15 minutes before the start of the first pre-game practice which specific stones they wish to use for the pre-game practice
- Teams may re-select stones for any subsequent play-off games

5.10 HANDLING OF HEALTH INFORMATION FORMS

TEAMS

These forms must be carried by a team member and be readily available in case of an emergency.

The health information forms are to be available during each draw and given only to authorised medical or paramedical personnel when indicated by the situation, with the consent of the athlete if at all possible.

ITOs

All WCF technical officials (ITOs) also have to complete a health information form and give it to the CU in a sealed envelope with their name clearly visible. The CU has to make sure that the DCU has also access at any time to those forms. Any health forms given to the CU by an ITO must be returned to the individual or destroyed at the end of the competition.

5.11 CHIEF UMPIRE'S REPORT

The template for this report is located in the Appendixes.

This report should be sent to the event TD within 30 days of the completion of the competition. Analyse situations that occurred at the event, pros and cons, and make recommendations for future events.

Send a separate confidential report directly to the Head of Competitions regarding any individuals (e.g. – officials, TD, OC, media, players and coaches, etc.) who have had a significant negative effect on the competition. Exceptionally good performances can be included in the CU report, or if considered more appropriate, be submitted directly to the Head of Competitions.

5.12 MENTORING

The path to becoming a CU is multi-faceted and it is expected that CUs participate in this process by mentoring their Deputy Chief Umpire (DCU) and Game Umpires (GUs). Upon appointment, the CU should work with the DCU in preparing for the Championship. Tasks could include the preparation of the Team Meeting Document, work schedule and any forms required during the event. Communications with the event TD should always include the DCU.

Once on-site, the CU should involve the DCU in all training, meetings, and planning sessions for post-round robin activities. The umpire rotation should include sessions where the DCU is designated as the CU in order to get hands-on experience. This not only helps the DCU but allows the CU a necessary break during a championship.

As mentioned earlier, the CU and DCU should help the GUs understand the duties of the CU and DCU positions and share their knowledge on how to advance into one of those roles in the future. This type of mentoring is a form of interactive learning not available in the classroom, or in an online setting, and is the foundation of a world class officiating workforce.

5.13 TEAM BUILDING

Just like every curling team needs a skip, each officiating team needs a leader to keep everyone on-task and motivated during a championship. This responsibility falls on the CU. It is important to create a workplace that is friendly and open. This can be easily accomplished by having a daily debrief meeting. It is important to give positive and constructive feedback, which will help to grow the team during the event and make for better officials in the future.

6 CHIEF TIMER (CT)

The CT reports to and is responsible to the CU and TD. The CT is responsible for ensuring all equipment for game timing is in place, and there is a rota for the Game Timers (GTs).

PRE-COMPETITION

- Check the installation and correct functioning of all timing equipment
- Arrange a pre-competition meeting with the volunteer GTs. Note their experience during introductions (if possible, find out this information before the event). The rules and principles of timing should be reviewed, and an opportunity given for practice with the equipment. Timers should be reminded of their dress code and code of behaviour, and must know whom to contact if they are unable to appear for duty
- Ensure a rota of the GTs is made. There should be a spare timer on standby for each draw
- If a DCT has not been appointed, a suitably experienced GT may be allocated to this task
- Ensure game-timing forms are available
- The CT should check with the CU:
 - Which clock(s) will be used for the different practices?
 - Who is running the time clocks during the practices?

BEFORE THE GAME

- Arrive 60 minutes before the scheduled game start to switch on the equipment and check the settings
- The GTs report 40 minutes before the scheduled game start. Any absences should be reported to the CU and the OC
- Supervise the timing of the pre-game practices
- Check all GTs have the correct game timing forms and verify with scoreboards

DURING THE GAME

- Check GTs know who has the LSFE and which colour starts
- Control the start of the game count-down clocks
- Ensure clocks are operated correctly throughout the game (i.e. – start of ends, time-outs, start of break, rule violations, etc.)
- Ensure times are recorded after each end (latest CurlTime will display this information at the bottom of the GT screen)
- Warn the GU when there is 1 minute 10 seconds to end of mid-game break
- Ensure team and technical time-outs are recorded
- Promptly advise the GU of any timing errors or malfunctions
- Supervise and record any time corrections
- Advise CU when a team has 2 minutes left on their game clock
- Supervise the setting of the game clock for any extra end
- Collect completed game timing forms

AFTER THE GAME

- Meet with the CU to deal with any timing issues, if required
- Reset game clocks for the next game at the agreed time
- Prepare a GT rota for the post round robin games by the end of the round robin

POST COMPETITION

- Return equipment to the OC, or pack to be returned to the WCF
- Prepare and submit the CT Report

6.1 CHIEF TIMER'S REPORT

This report should be sent to the event TD within 30 days of the completion of the competition.

- Analyse situations that occurred at the event, pros and cons, and make recommendations for future events
- Send a separate confidential report directly to the Head of Competitions regarding any individuals (e.g. – officials, TD, OC, media, players and coaches, etc.) who have had a significant negative effect on the competition
- Exceptionally good performances can be included in the CT report, or if considered more appropriate, be submitted directly to the Head of Competitions

7 CHIEF STATISTICIAN (CS)

The results and statistics area of a championship depends on the scope:

- Olympics: The WCF Chief Statistician serves as liaison between the CU (including all ITOs) and the official results service
- Events with any kind of TV coverage: The CS oversees all areas involved in results and statistics, such as production of forms, interface to WCF website and TV, maintenance of technology devices and organization of statisticians
- Other events: The CS oversees all areas involved in results, such as production of forms, interface to WCF website and maintenance of technology devices

PRE-COMPETITION

- Decide with TD the best place for the result office, whenever possible with direct view to FOP and scoreboards and timing screens, with a wired internet connection. Depending on the event, the office could be on the stats bench (close to statisticians).
- Discuss with CU all results points (see appendix).
- Installation of technology devices
 - Server notebook with current event database
 - Notebook for operations
 - Colour laser printer
 - Internal network (wired and Wi-Fi) with wired connection to the internet
 - UPS power for devices without battery (e.g. network)
 - CuCoS tablet for line-up entry installed (usually next to CU table on coach bench)
 - **CuUmS tablets for LSD distance and Results entry, tested with good connection at both ends**
 - Display of LSD distance for player, coaches (and spectators)
 - Notebook for TV graphics with connection to TV Truck(s)
 - Notebook for statisticians directly behind each sheet, as high up as possible
 - **Connection between Timing notebooks and results system (with CT)**
- Instruct all umpires on CuUmS
- Instruct statisticians ("how to score" presentation), make sure they know their schedule

TEAM MEETING

- Arrive 30 minutes before the start and set up table at the entrance
- Hand out "Original Team Line-up" form to each team (preferably to the coach) and explain briefly
- Collect completed forms, if possible before the meeting starts, or otherwise just afterwards
- Enter the changes to the results system and return the forms to the CU for archiving
- Print "On-ice Official" and "Timing" forms for round robin

BEFORE THE GAME

- Arrive 60 minutes before the scheduled game start to switch on the equipment and check the settings
- Check CuCoS tablet for line-ups
- Print "Team Line-up" report and distribute to CU and each umpire on the ice (except when CuUmS tablets are used also for Results entry)
- Help umpires during the LSD measuring and data entry to CuUmS
- On each statistician notebook, load the game (after LSFE has been assigned)

DURING THE GAME

- Set the correct session and game status
- Update score after each end (or verify if umpires or statisticians entered correctly)
- Be ready for line-up changes (entered in CuCoS, communicated through radio)
- Supervise all statisticians

AFTER THE GAME

- Get radio confirmation of the score from each game umpire
- Get or check remaining time (after last end and after each extra end) either directly from timing screens or from CT
- Create all outputs and upload on the websites
- Distribute printed reports to defined drop-off points
- Prepare for next session (including correct status for CuCoS to work)

LAST SESSION OF ROUND ROBIN

- Prepare all possible scenarios for the final round robin standings
- Discuss with TD and CU before and during session
- Produce final Draw Shot Challenge report and deliver to CU and all coaches on the bench
- Get confirmation of the final scenario number (radio) from CU and TD
- Create all outputs (including play-off schedule) and upload on the websites
- Create forms for play-off games immediately after post round robin meeting

POST COMPETITION

- Generate Results Book and upload to website
- Pack all equipment

8 GAME UMPIRES (GU)

(Appointed by the WCF)

DUTIES

GUs assist the CU in the running of an event both on and off the FOP performing all assigned tasks. All GUs should wear the uniform for the competition only while working. They may also wear it to and from the accommodation, but if "off duty" and/or a "spectator" they should not be identifiable as Umpires.

PRE-COMPETITION

- Be familiar with WCF rules and policies as well as the CG-TMD, especially particular procedures for that event
- Arrive in time to assist on the preparation day prior to the team practice day
- Assist on the team practice day
- **Team Meeting: Check presence of athletes and coaches while they are entering the Team Meeting location. The appointed Game Umpires to do that should arrive at the Team Meeting location no later than 30 Min. prior to the start of the meeting**

DURING THE COMPETITION

Observe the following and undertake allocated duties given for each session that may include:

- If assigned to control the pre-game practice, perform a radio check (Umpires, Timers, Ice Crew, Results) **prior** to the start of the first practice
- If CuCoS is not used, collect Game Line Up forms and give copies to the Results Team
- Perform LSD measures
- Concentrate on your assigned game(s) only
- Assist teams, answer questions, provide information
- Ensure fair play between teams
- Be neutral and fair in decision making
- Intervene to make corrections or when a rule is broken. When appropriate, a GU may intervene to prevent a rule from being broken (e.g. – improper delivery rotation in Mixed Doubles, sweeping with wrong brush, etc.)
- Perform measures
- Avoid casual conversation with players, coaches, other Umpires, media or spectators
- Record violations and incidents. Inform the CU immediately about major infractions, minor infractions can be mentioned at the end of the game
- Report immediately any improper communication between players and coaches
- Verify score before posting on the scoreboard. Remember to change the totals and hammer
- Monitor team time-outs and inform team when there are 10 seconds remaining
- Monitor mid-game break (normally 5 minutes) and inform teams when one minute remains
- Monitor breaks between ends (normally one minute)
- Control technical time-outs and determine if valid
- Ensure the correct score is obtained for the last end. Teams are often only concerned about 'win and loss', however officials are required to have an accurate final score
- Complete the scorecard
- Obtain a signature from both teams on the scorecard
- Finalise scoreboards (at both ends) including the X's if appropriate
- Return all forms to the CU
- Attend meetings as required by the CU
- Run any additional practice session as necessary (e.g. – evening/post-round robin)

- If questioned by media or a spectator about a situation or incident that may have occurred during a game, politely refuse to make a comment and inform them that the CU will answer any questions they may have

Note: If End-Ice Assistants are available, they may perform some of the above tasks.

AFTER THE COMPETITION

- If required, assist in getting teams into the arena for the Closing Ceremony/Medal Presentation
- If required, assist during ceremony
- Tidy the Umpire's room and pack equipment
- Remember that the closing function is still considered to be part of the competition and proper behaviour as an Umpire is necessary

8.1 GU PROCEDURES

LSD THROWER CHECK

- A GU with a form for confirming the LSD players to be at Away end to check against the names of the players throwing the LSD stones
- If named player throws, tick as correct on the sheet
- If a different player throws, note which player threw
- After the stones have been measured, radio details to other ITOs (and Results)
- CU/DCU to speak to team coach (or skip if there is no coach). Results team to help change result to correct player

LSD RECORDING WITH LASER MEASURES

- The WCF system for LSD recording at events where laser measures are used is, to take the first digit after the period and ignore the 2nd digit (i.e. 11.10 will be recorded as 11.1 – but – 11.19 will also be recorded as 11.1).

RECORDING THE RESULT FOR A TEAM THAT RUNS OUT OF TIME

- If a team runs out of time, the score of the started end is marked with a "slash" (/).
- The final score is marked as W/L.

IN GAME PLAYER CHANGE (for non-wheelchair games)

- After receiving information that there will be a player-change, the GU is to observe it
- Change of players between ends only
- GU reminds players that the entering player must use the brush pad of the player leaving
- GU to observe the change over
- GU to ensure players follow the brush policy
- GU to radio CU if the team does not follow the brush policy

The responsibility stays with the team. All we can do is help them and remind them about what the rules say.

9 GAME TIMER (GT)

Volunteer positions organised by the OC.

Responsible for operating the game clock on an assigned sheet. The GT must be thoroughly familiar with the equipment, as well as the rules governing the use of game clocks. On rare occasions, the CT/DCT may have to give basic instructions on the Rules of Curling, terminology and basic gameplay.

CODE OF CONDUCT

- Be on time for assignments
- Give as much notice as possible if unable to work
- Any changes to the work schedule have to be approved by the supervisor
- Abstain from alcohol from 6 hours before duty
- Conform to dress code
- Maintain confidentiality at all times

PRE-COMPETITION

- Attend CT meeting to receive instructions for all procedures (e.g. – pre-game practice, LSD delivery, timing forms, etc.)
- Confirm availability for all scheduled shifts
- Practice on the game clocks

BEFORE THE GAME

- Check in with the CT a minimum of 40 minutes before the game
- The GT operating the pre-game practice clock should be in position 40 minutes before game start
Other GTs should be in position 10 minutes before game start

10 ICE VOLUNTEERS

All those positions are volunteer positions and are organised by the OC.

10.1 END-ICE ASSISTANTS

The primary duty is to assist the GUs in the FOP. End-ice assistants are not decision makers.

CODE OF CONDUCT

- Be on time for assignments
- Give as much notice as possible if unable to work
- Any changes to the work schedule have to be approved by the supervisor
- Abstain from alcohol from 6 hours before duty
- Conform to dress code
- Maintain confidentiality at all times

BEFORE THE GAME

- Check in with your supervisor at the time indicated and collect any necessary equipment
- Move into your position in the FOP at the time directed
- Dress warmly and in approved clothing – black trousers, clean shoes

DURING THE GAME

- The GU will advise who has the last stone in the first end. Place the LSFE symbol on the scoreboard.
- Once the GU confirms the score, mark it up as soon as possible for both teams: 0-0, 1-0, 2-0, etc. and remember to adjust the totals at the end of the scoreboard. The hammer symbol needs to be moved after each end
- Make sure the players' equipment, clothing and bags are behind the scoreboards or stored away from the walking area. Help keep the FOP tidy
- Team water bottles should not be touched
- Remain seated as much as possible, make sure not to distract players
- Do not engage in casual conversation with the competitors, other officials, media personnel, spectators or coaches during the game
- In an incident occurs, do not intervene but inform the GU
- Notify the GU if the teams request a measurement or ruling
- If you need to leave the ice during a game, advise the GU and wait for a replacement before leaving your position

AFTER THE GAME

- Help clear the scoreboards if asked by the GU
- Return all equipment
- Never make comments to media or spectators about situations or incidents that may have occurred during a game

10.2 MIXED DOUBLES ASSISTANTS (MDA)

The primary duty is to assist the GUs in the FOP. Mixed Doubles assistants are not decision makers.

They play an active role in sustaining the flow of play from one end to the next. The Mixed Doubles Assistant is required to act efficiently and accurately within the one-minute break at the completion of each end.

CODE OF CONDUCT

- Be on time for assignments
- Give as much notice as possible if unable to work
- Any changes to the work schedule have to be approved by the supervisor
- Abstain from alcohol from 6 hours before duty
- Conform to dress code
- Maintain confidentiality at all times

BEFORE THE GAME

- Check in with your supervisor at the time indicated and collect any necessary equipment
- Move into your position in the FOP at the time directed
- Dress warmly and in approved clothing – black trousers, clean and non-slippery shoes

DURING THE GAME

The system of MDAs may vary from event to event, depending on the number of volunteers available, the type of club or arena, the number of GUs and the number of ice sheets in play.

Each MDA may be working one end of two sheets or moving from end to end on one sheet. An MDA may also be assigned to update scoreboards on several sheets, as well as assisting with positioning stones for other MDAs when possible to ensure the stones are placed in time (one-minute break between ends).

- The MDAs should be at the home end backboard with the scorecard at the completion of each team's practice session. The GUs will record the LSD measurements. The GU will advise who has the last stone in the first end
- Note the actual game start time on the scorecard and fill in all required information
- Concentrate and watch only the game to which you are assigned. In case of a dispute over an incident on the ice, the GU will look to you for a report
- Make sure the players' equipment, clothing and bags are behind the scoreboards or stored away from the walking area
- Chart violations if required to do so. When play is coming towards you, chart every violation noted from the near hog line to the near backboard. When play is going away, all violations from the near backboard to the far hog line are recorded. If there is only one end-ice observer per sheet, they should be positioned at the playing end and record all violations for that sheet. Record any illegal coach communication. GUs may make notations on the violation sheet
- Remain seated as much as possible, but once the stone has been delivered you may move to more clearly view a critical shot. Make sure not to distract players on adjacent sheets
- Do not engage in casual conversation with the competitors, other officials, spectators or coaches during the game
- If an incident occurs, do not intervene. Observe and wait to be consulted on the position of any stones prior to the shot that has just been delivered. If the players cannot solve the problem, call a GU. The only situation where you can intervene is when a stone touches a sideboard and finishes in play unnoticed by the teams
- If you need to leave the ice during a game, advise the GU and wait for a replacement before leaving your position
- Notify the GU if the teams request a measurement or ruling
- Place the "Hammer" marker in the end to be played for the team who has last stone in that end (coloured hammer if either team calls a power-play)
- Mark up the score at both ends as soon as possible for both teams: 0-0, 1-0, 2-0, etc. and remember to adjust the totals at the end of the scoreboard. No matter how obvious, the score is not marked until verified by the players in charge of the house (mark the end-score in colour after a power-play)
- If time clocks are not available, at the completion of regular ends monitor the one-minute break and inform the teams when 10 seconds remain
- If time clocks are not available, at the completion of the end that defines the halfway point monitor the break and inform the teams when one minute remains

PLACEMENT OF STONES

- Use the designated stones, one of each colour for each end of the ice, each marked. If there is a rotation of the designated stones (to keep the wear on the running edges the same), the markings on the stones will have to be changed to match the rotation order
- Place the stones not being used together behind the hack and away from the game stones (providing there is sufficient space between the hack and back board. Placing stones behind a bumper is also an option)
- The team that scores OR blanks an end will deliver the first stone in the next end **UNLESS YOU ARE TOLD OTHERWISE BY THE TEAMS**
- The team delivering first has the guard stone
- The team delivering second has the stone in the house
- The end-ice observer (or GU) at the other end will indicate which team (colour of stone) scored or blanked the previous end to enable you to set up stones for the next end as quickly as possible. They may use a signal of hand held high (team on top of scoreboard) or hand held low (team on bottom) to indicate which team (colour) has last stone
- Clean the running surface of the two positioned stones with a micro-fibre cloth before moving them forward to their locations. When ice conditions are very good (i.e. - clean and frost-free) the cleaning

of positioned stones may be done pre-game and at the mid-game break. Take care in tipping stones to clean. Always clean stones near the backboard, never ahead of the hack area

- GUs will inform the MDAs at the start of each game what the designated position is for the guard stone

ORDER OF PLAYING STONES

- The first player (which can change from end to end) on each team delivers the first and the last stone for their team
- The second player delivers the next three stones
- Keep a chart to make sure that the first player does NOT deliver the first two stones
- If a team is about to deliver in the wrong order, tell the GU who will stop the player

AFTER THE GAME

- Help clear the scoreboards if asked by the GU
- Return all equipment
- Never make comments to media or spectators about situations or incidents that may have occurred during a game

10.3 ICE PLAYER ASSISTANTS - IPAs (WHEELCHAIR CURLING)

Each sheet should have two IPAs, one at the delivery end and one at the playing end. Their role is an integral part of Wheelchair Curling and essential to the running of a game.

CODE OF CONDUCT

- Be on time for assignments
- Give as much notice as possible if unable to work
- Any changes to the work schedule have to be approved by the supervisor
- Abstain from alcohol from 6 hours before duty
- Conform to dress code
- Maintain confidentiality at all times

BEFORE THE GAME

- Check in with your supervisor at the time indicated and collect any necessary equipment
- Move into your position in the FOP at the time directed
- Dress warmly and in approved clothing – black trousers, clean and non-slippery shoes
- Check with each team for their stone delivery order. List handle number in order on the Stone Delivery card

DURING THE GAME – DELIVERY END

- Arrange the stones so that the last one to be delivered is just touching the tee line and the other stones are in a straight line in the direction of the hog line. Handles should be pointing straight up the ice (parallel to the centre line). The stones of the team delivering first should be closer to the centre (see ice chart). This may mean changing the position of stones for the first end after the pre-game practice, depending on which team has last stone advantage in the first end of the game
- The players will indicate to the IPA where they would like the stone placed for their delivery. A micro-fibre cloth, not the hand, should be used to clean the running surface of all stones and the ice area where the stone is cleaned, unless otherwise directed by the team. Once a player has been given his/her stone, the IPA should stand still and out of the vision of the delivering player, well behind that player near the sideline (see ice chart)
- It is important to have the first stone cleaned and in position to avoid delays
- For Mixed Doubles – Hold the chair of the delivering player if asked
- After the last stone of an end has been delivered, the IPA at the delivery end should proceed along the side of the sheet to the other end to assist in getting the stones lined up in delivery order for the next end of play

DURING THE GAME – PLAYING END

- Stand to the side of the sheet (out of the delivering player's sight line), near the corner where the out-of-play stones will be collected
- Assist players in clearing any stones that are not in the FOP (stones that have not crossed the hog line, or have touched a sideline or cleared the back line)
- Place out-of-play stones in two rows parallel to the side boards and with the handles pointing straight up the ice, parallel to the centre line (keep them in the delivery order if possible)
- If a take-out shot is being played, move forward in anticipation of stones possibly going towards an adjacent sheet
- After the score for the end has been agreed between the teams and it has been communicated to the GU, both IPAs can move the stones up to the delivery position on the right side of the sheet for the next end
- If a measure is required, don't move any stones. Call an Umpire. Communication problems have occurred in the past and the wrong stones have been removed. However, players (at their team's risk) are free to move stones themselves before a measure
- Arrange the stones in correct order for the next end, but one IPA should follow the first stone back to the other end
- The IPA can arrange any remaining stones after the 1st stone is delivered
- Offer assistance only when requested
- If asked to comment on any situation regarding play/position of the stones, make it clear that is not your role and such comments should be directed towards the GU. But if an Umpire is not present and the players ask if a stone has touched the side boards, you may comment if you have seen it
- If you see anything, which the players "miss" (e.g. – stone touched by a wheel), it is not your duty to bring it to their attention, but you can tell the GU

10.4 ICE PLAYER ASSISTANTS - WHEELCHAIR MIXED DOUBLES (IPA - WHMD)

Each sheet should have two IPAs, one at the delivery end and one at the playing end. Their role is an integral part of Wheelchair Mixed Doubles Curling and essential to the running of a game.

CODE OF CONDUCT

- Be on time for assignments
- Give as much notice as possible if unable to work
- Any changes to the work schedule have to be approved by the supervisor
- Abstain from alcohol from 6 hours before duty
- Conform to dress code
- Maintain confidentiality at all times

BEFORE THE GAME

- Check in with your supervisor at the time indicated and collect any necessary equipment
- Move into your position in the FOP at the time directed
- Dress warmly and in approved clothing – black trousers, clean and non-slippery shoes, jacket without hoodie
- Check with each team for their stone delivery order. List handle number in order on the Stone Delivery card

DURING THE GAME – GENERAL

- Do not engage in casual conversation with the competitors, other officials, spectators or coaches during the game
- If an incident occurs, do not intervene. Observe and wait to be consulted on the position of any stones prior to the shot that has just been delivered. If the players cannot solve the problem, call a GU. The only situation where you can intervene is when a stone touches a sideboard and finishes in play unnoticed by the teams
- If you need to leave the ice during a game, advise the GU and wait for a replacement before leaving your position
- Notify the GU if the teams request a measurement or ruling
- Make sure not to distract players also on adjacent sheets

PLACEMENT OF STONES

- Use the designated stones, one of each colour for each end of the ice, each marked. If there is a rotation of the designated stones (to keep the wear on the running edges the same), the markings on the stones will have to be changed to match the rotation order
- Place the stones not being used together away from the game stones close to back board
- The team that scores OR blanks an end will deliver the first stone in the next end UNLESS YOU ARE TOLD OTHERWISE BY THE TEAMS or the Game Umpire
- The team delivering first has the guard stone
- The team delivering second has the stone in the house
- The GU will indicate which team (colour of stone) scored or blanked the previous end to enable you to set up stones for the next end as quickly as possible. They may use a signal of hand held high (team on top of scoreboard) or hand held low (team on bottom) to indicate which team (colour) has last stone
- Clean the running surface of the two positioned stones with a micro-fibre cloth before moving them forward to their locations. When ice conditions are very good (i.e. - clean and frost-free) the cleaning

of positioned stones may be done pre-game and at the mid-game break. Take care in tipping stones to clean. Always clean stones near the backboard.

- GUs will inform the IPAs at the start of each game what the designated position is for the guard stone

ORDER OF PLAYING STONES

- The first player (which can change from end to end) on each team delivers the first and the last stone for their team
- The second player delivers the next three stones
- The GU will keep a chart to make sure that the first player does NOT deliver the first two stones and that the playing order is kept

SECURING THE WHEELCHAIR

The players can choose, as an option (besides a delivery with no-one holding the chair or the team-mate doing that), to get help to hold the chair from the Ice Player Assistant (IPA). If that option is chosen, there can be no complaint afterwards on how the IPA secured the chair.

- Secure the chair of the delivering player if asked to do so
- Step behind the chair, secure wheels with your feet and hold tight the wheelchair bars until the delivered stone crossed the hog line
- Do not push the wheelchair forward
- Keep still and quiet during the whole delivery process
- Follow instructions of the player
- Call GU in case of an incident or player's complaint. Do not argue with the player

DURING THE GAME – DELIVERY END

- Arrange the stones so that the last one to be delivered is just touching the tee line and the other stones are in a straight line in the direction of the hog line. Handles should be pointing straight up the ice (parallel to the centre line). The stones of the team delivering first should be closer to the centre (see ice chart). This may mean changing the position of stones for the first end after the pre-game practice, depending on which team has last stone advantage in the first end of the game
- The players will indicate to the IPA where they would like the stone placed for their delivery. A micro-fibre cloth, not the hand, should be used to clean the running surface of all stones and the ice area where the stone is cleaned, unless otherwise directed by the team. Once a player has been given his/her stone, the IPA should stand still and out of the vision of the delivering player, well behind that player near the sideline (see ice chart)
- It is important to have the first stone cleaned and in position to avoid delays
- Secure the chair of the delivering player if asked to do so
- After the last stone of an end has been delivered, the IPA at the delivery end should start positioning the stationary stones for the following end before moving to the other end to help with arranging the stones

DURING THE GAME – PLAYING END

- Place the stationary stones. When possible to ensure the stones are placed in time (break between ends)
- Power Play: Once per game, each team, when it has the decision on the placement of the "positioned" stones, can use the "Power Play" option to position those two stones to the side of the sheet instead of the designated centre positions. The in-house stone (B), which belongs to the team with last stone in that end, is placed on either side of the house with the back edge of the stone touching the tee line, at the point where the 8-foot and 12-foot circles meet. The guard stone (A) is positioned to the same side of the sheet, the same

distance that was determined for the centre guards. The “Power Play” option cannot be used in extra ends.

- Stand to the side of the sheet (out of the delivering player's sight line), near the corner where the out-of-play stones will be collected
- Assist players in clearing any stones that are not in play (stones that have not crossed the hog line, or have touched a sideline or cleared the back line)
- Place out-of-play stones in two rows parallel to the side boards and with the handles pointing straight up the ice, parallel to the centre line (keep them in the delivery order if possible)
- If a take-out shot is being played, move forward in anticipation of stones possibly going towards an adjacent sheet
- After the score for the end has been agreed between the teams and it has been communicated to the GU, both IPAs can move the stones up to the delivery position on the right side of the sheet for the next end
- If a measure is required, don't move any stones. Call an Umpire. Communication problems have occurred in the past and the wrong stones have been removed. However, players (at their team's risk) are free to move stones themselves before a measure
- Arrange the stones in correct order for the next end
- The IPA can arrange any remaining stones after the 1st stone is delivered
- Offer assistance only when requested
- If asked to comment on any situation regarding play/position of the stones, make it clear that is not your role and such comments should be directed towards the GU. But if an Umpire is not present and the players ask if a stone has touched the side boards, you may comment if you have seen it
- If you see anything, which the players "miss" (e.g. – stone touched by a wheel), it is not your duty to bring it to their attention, but you can tell the GU

10.5 HOG LINE OBSERVER

DUTIES

The hog line observer is solely responsible for observing whether the release of each stone is in accordance with the rules and calling any infractions that occur. This requires intense concentration, good judgment, and a quick response. The hog line observer must be certain in his/her own mind that a violation has occurred. The decisions of the hog line observer are very sensitive and must be made by someone who will not be intimidated. When possible, calls should be confirmed by another hog line observer sitting directly across from the one who initiated the call. The observer should be placed on or slightly outside the hog line and concentrate the vision directly on the line and not on the deliverer. The hog line observer is in radio contact with the GUs and CU and reports any infraction of the delivery rules. The rules state that the stone must be clearly released before the front of the stone reaches the hog line.

PROCEDURES

The first hog line warning is given at the pre-event Team Meeting, so any on-ice offence will be penalized.

The correct call by the hog line observer is:

"HOG LINE ...BRAVO ... RED"

The acknowledgement by the hog line supervisor of the radio transmission is:

"CONFIRMED / DENIED – BRAVO – RED"

The GU will move quickly to the designated sheet while noting stone positions. The violation will be announced to the offending skip who must remove the stone from play. The GU will oversee the removal of the stone and the replacement of any displaced stones.

At high-level competitions, a hog line call may need verification before it is official. A hog line supervisor may be assigned the responsibility of supervising hog line calls and verifying the call made by the hog line observer. The GU will then supervise the removal of the stone and the replacement of any moved stones.

RECORDING

All hog line violations are to be recorded by the hog line observer and by the end-ice observer on the record sheets provided.

NOTE

If there is a dispute regarding a hog line call, the CU will make the final ruling based on discussion with the observer(s) making the call. Television or other recorded evidence is NOT admissible.

11 RULES & PROCEDURES FOR TIMING

11.1 LSD TIMING

- GUs to check no player delivers the LSD before the appropriate announcement is made
- CT to make sure count-down is started when appropriate announcement to deliver LSD stones is made
- CT to check that all stones have reached the tee line before the sixty seconds countdown has elapsed
- If a team delivers too late, CT to inform all ITOs on radio that the maximum distance for that team must be recorded

11.2 PROCEDURE WHEN A TEAM IS LOW ON TIME

For example:

At 2:00 remaining a radio warning from (D)CT for the CU: "Sheet Alpha, red stones, 2 minutes"

At 0:00 remaining radio call from (D)CT: "Sheet Alpha, red stones, out of time" – or "Sheet Alpha, red stones, delivered in time"

In a low-on-time situation, the (D)CT closely observes the time clock operations of all sheet(s) that are low on time.

In case a team runs out of time, the (D)CT will be available at the CU's location to answer any questions (after all games of the draw are finished).

Consequence of this procedure is that the responsibility for the decision if a team has lost on time is shifted to the (D)CT, but the procedure is clear and less complicated for all involved.

11.3 PROCEDURES FOR TIME-OUTS

WHEN A TEAM CALLS A TIME-OUT

- A team uses the "T" hand signal, directed towards the timer or GU. The GU and CT confirm that a time-out has been called
- A team time-out starts as soon as the time-out is called and consists of 'travel time' to get to the team plus 60 seconds. The amount of travel time will be determined at each event by the CU (this should be entered into CurlTime and saved for the event), and is given to all teams whether or not they have a coach, and whether or not a coach is coming to the FOP
- In exceptional circumstances (i.e. – a coach stopping so as not to interfere with another game) the travel time will be paused at the discretion of the GU or CT
- In exceptional circumstances (i.e. – a coach running or jumping over the boards) the travel time will be cancelled at the discretion of the GU or CT
- If walkways are provided the coach must stand on the walkway, either beside or behind the sheet. The GU ensures that the other team is not blocking the coach's view
- If there are no walkways beside the sheet, the coach can only stand behind the sheet. Specifics on how the coaches can reach the team time-out area shall be given at the Team Meeting
- When 10 seconds remain in the time-out, the GU notifies the team and coach of the time remaining
- When the time-out expires, the GU ensures that the coach ends all discussion with the team and the coach leaves the FOP promptly
- If play does not commence after the time-out has expired, the GT should start the appropriate clock
- The time-out is recorded on the game timing form and on the scorecard

NOTE: A time-out can only be activated if the game clock of the team calling the time-out is actually running. If a team is low on time, they might call a time-out before the GT has had a chance to start the clock. If the GT presses T or clicks time-out, nothing will happen unless they first start the clock and immediately activate the time-out.

WHEN A TEAM REQUESTS A TECHNICAL TIME-OUT

- If a team wants a technical time-out, they use the "X" hand signal directed towards the GU or GT, who will stop the team's game clock
- If the reason is considered valid (i.e. – FGZ measure) by the GU, then it is considered a technical time-out. The game clock is restarted at a point indicated by the GU
- If the reason is considered not valid (i.e. – stopping the game because a player wants to return to the locker room to pick-up forgotten equipment, etc.), the game clock is re-started immediately
- Coaches and players must be notified of the decision

11.4 GAME START AND TIMING BETWEEN ENDS

- There will be a one-minute countdown before the start of the game
- The length of the breaks will normally be:
 - (i) 1 minute (90 seconds for Mixed Doubles) between each end, except as noted in (ii)
 - (ii) 5 minutes at the mid-game break.
- For all ends except for the last end, the break time is started, as soon as all the stones in the house have been moved. If a measurement is required, the break begins at the completion of the measure
- Teams should not deliver the first stone of an end until the entire break time has expired, and the 10 second shooting timer has begun. If necessary, the GUs will prevent an earlier start. The delivering team's game clock will not run during the start of the game/end unless that team is delaying the start (no forward motion from the hack, or the stone not released from the delivery stick), then its game clock will be started. If there is no delay, the first game clock to start in each end will be that of the team delivering the second stone
- If necessitated by television/media obligations/commitments the break times may be changed. This information will be obtained from the official broadcasters and the teams will be informed as soon as possible, usually at the Team Meeting. When one or more games are being televised and the break times are altered for those games, the altered times will be applied to all games
- For the mid-game break, the teams will be notified when one-minute remains. The GU will only notify teams that are in the FOP and will not go looking for teams. When teams cannot begin play because the ice-crew has not finished preparing the ice, the CT should await instructions from the GU on when to start the game clock

11.5 GAME CLOCK ADJUSTMENTS

- If a time clock malfunction or error occurs, the time to be given back should be noted and the necessary adjustments to the game clock made during the next break between ends. If the malfunction occurs during the last scheduled end, or an extra end, the CT will call a technical time-out and the necessary adjustments to the game clock will be made immediately. Time will only be added when required, but never taken away
- Time should be adjusted as follows: The time on the clock before adjustment is recorded. The agreed time adjustment is applied, and the new time recorded alongside the previous figure. The game clock is then set to this time
- The CU will notify the coaches of all game clock adjustments. The GU will notify the teams of the occurrence and of the action taken if and when appropriate

- If there are repeated occurrences of game clock malfunctions or errors, the time clock for that sheet may be shut down. Both coaches and both skips will be notified
- If a stone is to be redelivered, the GU decides if thinking time is applied, and notifies the CT
- If an end is to be replayed, the game clocks are reset to the time recorded at the completion of the previous end
- When a team delays the start of a game, the thinking time allotted to each team is reduced by 3 minutes 45 seconds (4 minutes 45 seconds in wheelchair curling, 3 minutes in mixed doubles curling) for each end that was considered completed
- When extra ends are required, the game clocks are reset and each team receives 4 minutes 30 seconds of thinking time for each extra end (6 minutes in wheelchair curling, 3 minutes 15 seconds in mixed doubles curling)

11.6 TIMING PROCEDURES

- **Start of the game** – An announcement will be made one minute prior to the start of the game. A 1:00 clock will be started at that time, counting down to the start of the game
- **Clock start (first stone of an end)** – The first end will start as soon as the 1:00 countdown timer expires. For each subsequent end, the end starts when the break time expires. The delivering team's clock will not run during the start of the game unless that team is delaying the start (no forward motion from the hack, or the stone not released from the delivery stick). If there is no delay, the first clock to start in each end will be that of the team delivering the second stone. If the positioned stones in a mixed-doubles game have not been placed before the end of the break, the game clock of the appropriate team will be started
- **Clock start (subsequent stones)** – A team's game clock starts when it becomes the delivering team:
 - all stones have come to rest or crossed the backline, **and**
 - any stones that are displaced due to violations by the delivering team, and require repositioning, are returned to their original positions, **and**
 - the playing area has been relinquished to the other team (the person in charge of house moves behind back line, sweepers and deliverer move to the sides)
- **Clock stop** – A team's game clock stops once the stone has reached the tee line (hog line for wheelchair curling) at the delivery end
- **Team time-out** – A team calls a team time-out by signalling the "T" sign. A team may only call a time-out whilst its clock is running. The timer should immediately initiate the team time-out procedure (see section 11.3)
- **Technical time-out** – A team calls a technical timeout by making the "X" sign. The timer should immediately stop any running game clock (see section 11.3). Any intervention of an umpire is also considered a technical time-out
- **Last stone of an end** – When the last stone of an end has been completed, all clocks remain stopped until the next end
- **Start of the break** – As soon as the score for the end is agreed, the break time is started (See section 11.4)
- **Extra end** – When an extra end is required, the clocks of both teams are reset to the time established for an extra end. Each team receives one team time-out, regardless of the time-outs remaining after the regular scheduled ends. This applies to all extra ends
- **Timing errors** – Errors or malfunctions must be reported to the CT immediately. Any timing adjustments must only be made under the direct supervision of the CT (See section 11.5)

11.7 TIMING RELATED SCENARIOS

For reference, some special situations can be found below, together with the time clock procedure for these situations.

GENERAL SCENARIOS

- **Hogged stone** – A stone fails to clear the Hog Line at the playing end. The opponent's clock does not start until the hogged stone is taken behind the Back Line
- **Free Guard Zone (FGZ) violation** – A team removes an opposition stone from play from within the FGZ Area before this is allowed. The opponent's clock does not start until its stone is put behind the Back Line and the removed stone is satisfactorily replaced
- **Wrong colour played** – If a team plays the wrong colour stone then the opponent's clock should not start until the stone is satisfactorily replaced by a stone of the correct colour
- **Hog Line violation** – Where a player, during delivery, has not released the stone before reaching the delivery-end Hog Line, the opponent's clock does not start until the hogged stone is taken behind the Back Line, and any other moved stones are returned to their original positions
- **Touched stones** – When a team has accidentally touched a stone, the opponent's clock does not start until all stones have been replaced to the satisfaction of the non-offending team
- **Stone delivered too soon** – If a team delivers a stone when their clock is not yet scheduled to be running, this stone needs to be redelivered. The clock of the team will not start until any displaced stones have been returned to their original positions. Then the stone can be redelivered
- **Redelivered Stone** – In some (usually technical) occasions, a player may re-deliver a stone. The GU will decide if thinking time should be applied or that stone can be delivered without the game clock running
- **Replaying an end** – An Umpire can direct that an end should be replayed. For example, where a stone or stones have been upset by an external force, and agreement cannot be reached as to their replacement. On receiving this information, the CT should start a between ends break and reset the clocks to the values at the end of the previous end. When the adjustment is complete, this should be confirmed to the GU
- **Delay after the mid game break** – If the ice crew is delayed or requested to perform extra work during the mid-game break, the GU will advise when to start the clock for the sheet where the delay has occurred

MIXED-DOUBLES CURLING RELATED SCENARIOS

For reference, some special situations can be found below, together with the time clock procedure for these situations.

Positioned stones not placed before start of the end

- If the positioned stones are being placed by the players and the positioned stones have not been placed before the end of the break:
 - If either team delays the start of an end, their time-clock will be activated
 - If both teams delay the start of an end, the time clock of the team that has to start the end will be started
- If the position stones are being placed by the officials and the positioning of the stones has not been accomplished prior to the end of the break, the game clock should be held as if a technical time out had been called
- If the stones are in position and the team who is expected to play doesn't, then their clock should start

No Skip/Vice-skip – For Mixed Doubles curling, it is not required for any player in charge of the house to be positioned inside the hog line and on the ice surface at the playing end. The delivered stone can be timed as normal.

WHEELCHAIR CURLING RELATED SCENARIOS

For reference, some special situations can be found below, together with the time clock procedure for these situations.

- **Visual ruling at the hog line or back line** – A team can request the GU to do a visual ruling. This will be handled as a regular technical time-out. The clock will not be running during this time. The GU will advise the CT when to restart the clock
- **Delivery stick stays with the stone** – This is considered a hog line violation. Timing will be as normal, no technical time-out required
- **Miscue during the delivery process** – If a stone reaches the near hog line, it will be treated as a regular hogged stone. If the stone stops before reaching the near hog line, the stone can be redelivered, and the clock continues to run. The IPA may help retrieve. If the delivery stick is broken, the GU will advise the CT. This will be treated as a regular technical time-out
- **Team does not want to deliver the last stone of the end** – The stone must be delivered. The team usually then pushes the stone just over the near hog line in fear of doing harm. As normal, the clock will run until the stone crosses the hog line at the delivery end
- **Variable delivery position** – A player would normally take up his/her position and then the stone would be placed in front of the chair. If they wish to change position after the initial set up it will be on their time
- **For Wheelchair Mixed Doubles** the player performing the delivery can request the volunteer for help – in order for the volunteer to hold the wheelchair during the delivery, the second player is in the “house”, where he shows the player delivering the stone a brush that the stone is released at. If they wish the IPA holds the chair, that communication is on their time
- **Extra time is used when a team requests changes in the playing order of stones** – Timers are not sure if it is an IPA mistake or a player request to get a different stone. Time should continue to run for that team unless the GU advises the CT that the clock should stop. If the mistake was inadvertently made by the IPA the time can be adjusted if so directed by the GU. A card system with the stone playing order will be used by the IPA. Changes will be dealt with by the GU between ends
- **Delays because of IPA actions** – The IPA actions of placing, cleaning, ordering, moving, or catching deflections may affect timing. A team should not be penalised when an IPA's actions are delayed for any reason. Examples include placing the wrong colour or number of stone in front of the player, not being ready with the first stone of the end and delaying removing stones from play. Timers shall relay any concerns about delays to the CT

11.8 LATE START OF GAME – RULE CLARIFICATION

IF TEAMS ARE NOT READY TO COMMENCE PLAY AT THE DESIGNATED TIME:

	Team # 1	Team # 2	Both teams
Ready to start on schedule	Yes	Yes	Use Last Stone Draw (LSD) or coin toss (if required) to determine LSFE. Score 0 – 0
0:00 – 0:59 seconds late for the start of the game	If only team #1, no penalty. Use LSD or coin toss (if required) to determine LSFE. Score 0 – 0	If only team # 2, no penalty. Use LSD or coin toss (if required) to determine LSFE. Score 0 – 0	If both teams, no penalty. Use LSD or coin toss (if required) to determine LSFE. Score 0 – 0
1:00 – 14:59 (1:00 – 9:59 for Mixed Doubles)	If team #1 is late then team #2 has last stone advantage, one end is considered completed, and the score is 0 – 1	If team #2 is late then team # 1 has last stone advantage, one end is considered completed, and the score is 1 – 0	If both teams are late then one end is considered completed, use LSD or coin toss (if required) to determine last stone and the score is 0 – 0
15:00 – 29:59 (10:00 – 19:59 for Mixed Doubles)	If team # 1 is late then team # 2 has last stone advantage, two ends are considered completed, and the score is 0 – 2	If team #2 is late then team # 1 has last stone advantage, two ends are considered completed, and the score is 2 – 0	If both teams are late then two ends are considered completed, use LSD or coin toss (if required) to determine last stone and the score is 0 – 0
30:00 minutes (20:00 for Mixed Doubles) - or more	If team #1 is late then it forfeits the game and team #2 is declared the winner. Final score is recorded with a L and W	If team #2 is late then it forfeits the game and team # 1 is declared the winner. Final score is recorded with a W and L	If both teams are late then the game is considered over and both teams take a loss. If one team 'must' advance in the draw, then the DSC would decide, if no DSC done, then a coin toss will decide
If one team is 1:00 – 14:59 (1:00 – 9:59 MD) min. late and the other team is 15:00 – 29:59 (10:00 – 19:59 MD) min. late: two ends will be considered played, the team that was 1:00 – 14:59 (1:00 – 9:59 MD) min. late receives last stone advantage and 1 point			

11.9 DELAY OF GAME PROCEDURE

- The CU starts their stopwatch when all other games are allowed to start i.e. end of the one-minute countdown or the official announcement when there are no time-clocks
- At 1:00 minute the first end is considered complete. The non-offending team receives one point and the last stone advantage in the 2nd end. The scoreboard needs updated at that time
- At 15:00 minutes (10:00 minutes for Mixed Doubles), end 2 is considered complete and the non-offending team receives an additional point and the last stone advantage in the 3rd end. The scoreboard needs updated at that time
- At 30:00 minutes (20:00 for Mixed Doubles), the game is forfeited and the final score shown as W/L. The scoreboard needs updated at that time
- **Timing: The thinking time for each team has to be reduced for each end that was considered completed by 3 minutes 45 seconds (4 minutes 45 seconds in wheelchair curling, 3 minutes 45 seconds wheelchair mixed doubles and 2 minutes 45 seconds in mixed doubles).**
- If both teams are late, only the ends are considered completed. An LSD or coin-toss will decide the last stone advantage in the first end of actual play. The total remains 0-0
- If both teams are late at 30:00 (20:00 for Mixed Doubles), the game is forfeited and both teams will take a loss. If one team has to advance (knock-out stage), the DSC would decide which team progresses. If there is no DSC used in the competition, a coin-toss will decide which team advances

12 RULES & PROCEDURES FOR LSD AND MEASURING

12.1 MEASURING PROCEDURES

All measuring devices must be kept cool.

One player of each team is allowed to observe any measurement provided there is no attempt to either interfere with, or influence, the Umpire.

Inform the CU that a measure is requested and maintain radio contact during the measure.

LAST STONE DRAW (LSD)

At the conclusion of the team's pre-game practice two players will each deliver one stone to the tee at the home-end, the first with a clockwise rotation, the second with a counter-clockwise rotation. The Umpire will measure any stone that finishes in the house. Stones that do not finish in the house are recorded as 199.6 cm. Stones covering the tee will be measured from two locations (holes) at the edge of the 4ft circle. These two locations make a 90-degree angle with the centre hole and are 0.61 m (2 feet) from the centre hole.

Stones delivered before the official announcement, or not within the 1 minute allocated for the LSD, will be recorded with the maximum distance. Where Eye on the Hog handles are used: If the LSD stone shows red lights then the team should NOT stop the stone but let it continue. The stone will be checked after it has been measured. If it is a hog line violation it will be counted as a maximum distance (199.6cm), if the handle is faulty then the measurement will stand.

FREE GUARD ZONE (FGZ)

- The block or set square shall be used to decide whether a stone is within the FGZ area at the hog line, or at the tee line beside the house
- The biter stick shall be used to decide if a stone is touching the house. Do not move the stone and indicate by hand signal if in FGZ or not
- If a stone cannot be measured because of other stones in the house, the measure will be done visually. After a visual decision that stone will not be measured again unless moved

MEASURES IN THE HOUSE

- Pick up the measuring device with the pointed end in your right hand (helps ensure measures are done in a clockwise direction, which is the preferred direction)
- If possible, enter the house at the 6 o'clock position after cooling your shoes
- Ask the teams to clear stones not involved in the measurement
- Ask the teams what the measurement is for (i.e. – shot stone, 2nd stone, 3rd stone, etc.)
- First put the feet of the measuring instrument on the ice and then the point into the centre hole
- Indicate the observers (one from each team) should stand behind the Umpire to observe the measure. All other players are to be standing outside the house
- Measures can be done in a clockwise (or counter-clockwise) direction, but maintain that direction throughout the entire measure
- Rotate device clockwise slowly past stone #1, carefully observing final reading and stating approximately reading out loud. Proceed to stone #2 using one hand to push the device outside the stones being measured. Observe and state the reading on the 2nd stone.
- Stand and point at the better stone(s) and clearly state that. Make eye contact and give the observers enough time to agree/question the decision. After that, whenever possible move the non-counting(s) away from the tee. However, if those stone(s) are on the opposite side of the house, the last stone measured can be moved in or out, depending on the result of the measure
- The teams are entitled to ask for a second measure from the game umpire. If this is the case, move the measuring device in a clockwise rotation to stone #1 and repeat the steps to measure the stones
- If the teams ask for a third measure, inform them that you will ask the CU to assist. Radio the CU to request a final measure
- Based on the results of the measure, confirm the score with both teams
- After measuring, remove the point of the device from the centre hole first before lifting the rest of the measure
- If stones are so close to the tee that an instrument cannot be used, the measurement is made visually. If a team does not agree with the GU's decision, or wants a second opinion, the CU makes the final decision
- At the conclusion of an end, to determine if a stone is in the house, the biter stick is used. Assuming the stone is not to be measured against any other stone, move the stone in if counting and out if not
- For a three-stone measure always measure the single colour stone first
- Based on the results of the measure, confirm with both teams the score of the end

OTHER MEASURES

To measure if a stone is in play at the back line, hog line or at the sideline (if no dividers), the block will be used. If the stone is exactly at the centre line in the back of the house and no stones are in the way, the biter stick shall be used.

MEASURING A STONE DURING AN END AT THE BACK-LINE

If an Umpire is asked to decide if a stone is out of play (completely over the back line), the following measuring procedure is to be applied.

During an end, any stone at the back line can only be measured with the block. The biter stick cannot be used. After the decision, if the stone stays in play, the stone has to be closely observed until it has been moved or removed. If the stone has not been moved till the end of the end, if requested by the teams, the biter stick can then be used to decide if the stone is in the house or not (if that is a question at all). The ruling of the block measure from earlier in that end will stay and the block will not be used again.

FOUR-STONE MEASURE

Choose one pair of stones of the same colour and use the one that is furthest away to compare against the other pair of stones. If necessary, measure between your selected pair to determine the one that is furthest from the tee.

Comparing that stone against each of the other pair will eliminate at least one stone – either one or both of the other stones, or the one that you've selected. The problem is then reduced to either a three or two stone measure and is straightforward to decide.

Sample:

Let's call the two red stones R1 and R2, and the two yellow stones Y1 and Y2. You've found that R2 is the further away of the reds. R2 is then measured against Y1 and Y2. If R2 beats both, then it's a two count to Red. If R2 beats Y2 but not Y1, then it's a Y1 vs R1 measure. If R2 is beaten by both Y1 and Y2, then it's a R1 vs Y1 and Y2 measure.

FIVE-STONE MEASURE

Compare the 2-stones of the same colour and determine which is furthest away and set the gauge on that stone. Compare that stone with each of the 3-stones of the other colour. Any stone that is better has to remain untouched so it can be later measured against the better of the 2-stones. Any stone that is worse can be removed. If all three stones are worse, the 2-stones colour scores 2 points. If any of the 3-stones are better, they are then measured against the better 2-stone colour after the worse 2-stone colour has been removed.

Sample:

R1 and R2 against Y1, Y2 and Y3. After measuring, R2 is determined to be worse than R1, so the gauge is set on R2. R2 is compared to Y1 (Y1 is worse so it can be removed), then R2 is compared to Y2 (Y2 is better, so it remains untouched); then R2 is compared to Y3 (Y3 is worse so it can be removed); then remove R2 since it is worse than Y2; then do a normal measure against R1 and Y2.

12.2 LAST STONE DRAW (LSD)

The Last Stone Draws (LSD) are used to determine which team will have the choice of delivering first or second stone in the first end.

- The LSDs (2 per team) will take place at the conclusion of each team's pre-game practice (one minute will be given to deliver each LSD)
- Teams will be informed in the Team Meeting document that the Umpires will assume that every team that wins the LSD will want the last stone in the first end. If there is any time that a team does not want the last stone if they win the LSD, then they must inform the Umpire before the start of their practice
- Opposing teams must remain behind the scoreboard during their opponent's pre-game practice. If that is not feasible, then the opposition should stand as far behind the sheet as possible, so as not to distract or intimidate the other team
- The number of LSD stones and the number of clockwise and counter-clockwise deliveries for each player will be determined depending on the number of games during the round robin
- A team that does not have enough players (due to illness or injury) to play their game is still permitted to train at the pre-game practice and deliver their LSD stones with the remaining players according to the rules

At the conclusion of each team's pre-game practice, two stones will be delivered to the tee at the home end, by different players – the first with a clockwise rotation and the second with a counter-clockwise rotation. The person delivering the stone can be any one of the five players on the team. One team member will hold the brush in the house at the home end inside the hog line and with at least one foot/wheel on the ice surface. Normal sweeping rules apply. Only four players (2 in Mixed Doubles) can be on the ice surface during the LSD. The other team members must stand as far away from the ice surface as possible and must not give any instructions.

Wheelchair Curling and Wheelchair Mixed Doubles: One team official is allowed to clean and place both LSD stones for their team. He should take up a position behind the back line before the delivery. The other team official and remaining player(s) should take up a position off the ice at the home end. The non-delivering team must be as far back from the end of the sheet as possible.

The first stone will be measured and removed from play before the second stone is delivered. The distances for each stone will be added together to give the team its LSD total for that game.

This process will be repeated during the second pre-game practice and the winner of the LSD determined.

Stones finishing in the house are measured.

- LSD distances will be displayed as the distance from the tee to the centre of the stone
- The official radius used in WCF Championships of 14.2 cm has to be added to any result measured
- To calculate the exact distance from the tee to the centre of the curling stone, stones covering the tee will be measured from two locations at the edge of the 4-foot circle. These two locations are at a 90° angle and 0.61 m (2 feet) from the centre hole
- Stones that do not finish in the house are recorded as 199.6 cm
- If a member of the delivering team touches a moving stone or causes it to be touched, the stone will be removed and recorded as 199.6 cm
- If a member of the non-delivering team, or an external force (does not include debris that is on the ice) touches a moving stone, or causes it to be touched, the stone will be redelivered
- If a member of the delivering team moves a stationary stone, or causes it to be moved before the Umpire completes the measurement, the stone will be removed and recorded as 199.6 cm
- If a team does not play the LSD stone (e.g. – late arrival) it is recorded as 199.6 cm

- If a member of the non-delivering team or an external force moves a stationary stone, or causes it to be moved, before the Umpire completes the measurement, the stone is replaced to its original position by the delivering team
- If a player fails to activate the handle prior to delivery of a stone, or there is a hog line violation, the stone will be removed and recorded as 199.6 cm

Note: Teams should be told at the Team Meeting that if an electronic handle signals a hog line violation, during LSD play (only) they should **not** stop it. After the stone stops, it will be measured, and then the ice technicians will determine if the handle was functioning properly or not. If the handle is working properly the LSD will be recorded as 199.6 cm; if the handle was not working properly the LSD will be recorded as per the measurement taken. **If a team stops an LSD stone showing a hog line violation, there will be no re-throw allowed.**

If the LSD totals for both teams are the same, the individual LSD stones are compared, and the best-unequal LSD has the choice of delivering first or second stone in the first end. When both teams have the exact same individual LSD stone distances, a coin toss will be used to determine that choice.

Last stone advantage in the first end will be marked with an asterisk or some other sign in the space allocated for this on the scoreboard. It remains in this position for the entire game. Another symbol will be placed in each end-box as the game progresses to show the team having last stone in that end.

LSD ANNOUNCEMENTS

The LSDs are done at the end of the pre-game practice.

- With one-minute remaining in practice (i.e. 8 minutes) "One minute to the end of practice"
- At the end of practice (i.e. 9 minutes) "Practice is over"
- There is a slight pause to allow all delivered stones to come to rest "Please deliver your clockwise LSD"
- Teams will be given a maximum of 60 seconds to deliver the LSD. If the stone has not reached the tee line (hog line in wheelchair curling) at the delivering end within 60 seconds (observed by an Umpire) it will be recorded as 199.6 cm. If a player delivers an LSD stone before the announcement "Please deliver..." the stone will also be recorded as 199.6 cm
- The process is repeated with the counter-clockwise LSD

LSD PROCEDURES

Although many play-off positions are determined without using the LSD rankings, it is still important to try and reduce the possibility of errors. In order to try and make the measures on Last Stone Draws as accurate as possible, the following is recommended:

- Where more than one measure is being used, the tapes should be clearly marked for a specific sheet and used only on that sheet during the course of the round robin. As the teams rotate through the sheets, hopefully this would balance out any differences in the measures. If the difference is too great on one measuring tape, it should not be used
- All tapes to be used are set to metric with the arrow pointing towards the stone to be measured
- As it requires two people to conduct the measures in the eight foot and twelve foot, it is recommended that where possible the Umpires work in pairs. In a competition using four sheets the Umpires assigned to Sheets A and B would conduct the LSD measures on those sheets and the Umpires assigned to Sheets C and D would conduct the measures on those sheets. The two measures should be clearly marked "A-B" and "C-D"
- The Umpires should make sure that the measure will register 0.1 cm and that the measure is reset to 0.0 before each measure
- If the measure is loose in the centre hole, it should be held firmly to the side of the hole nearest the stone to be measured

- Any one player, involved in the LSD deliveries, may observe the measure
- The Umpires should be aware of the distance from the centre to each line marking the circles of the house so that they know the range within which the measure of the stone should fall (i.e. 182.9 cm for the 12-foot; 121.9 cm for the 8-foot; 60.96 cm for the 4-foot; minimum of 15.24 cm for the inner circle)
- The tape should be pulled out at as consistent a speed as possible for each measure and the end of the tape should contact the stone to be measured in the centre of the striking band so that the end of the tape is flush with the stone's surface
- The reading should be locked in once the measure is taken and both Umpires should view and confirm the reading

12.3 DRAW SHOT CHALLENGE (DSC)

The Draw Shot Challenge (DSC) is used at competitions that use the Last Stone Draw (LSD) during the round robin portion of the competition. The DSC is used to establish ranking in situations where teams are involved in unsolvable ties.

The DSC is the average distance of the LSDs that were played by a team during the round robin portion of a competition. Where a total of 11 or fewer individual stones have been delivered, the single least favourable result is eliminated before calculating the average distance. Where more than 11 individual stones have been delivered, the two least favourable LSD results are automatically eliminated before calculating the average distance. The team with the lesser DSC receives the higher ranking.

If the DSCs are equal, then the team with the best non-equal LSD receives the higher ranking. Where all LSDs are equal, the team whose Association is ranked higher in the official WCF World Rankings is ranked higher.

The distance recorded by an Umpire for any LSD can be disclosed whenever asked, and it can be publicly displayed (e.g. – on the Sportboards at the Olympics). A chart will be maintained which records all the teams' LSDs.

In competitions where teams play in different groups of different sizes, the DSC will be calculated in the same way for all teams. Only the number of LSD stones from the group with the smallest number of teams will be considered in the calculation of the DSC for all groups.

All teams have to fulfil the minimum requirements (number played by each player) within the considered games. **The minimum number of deliveries per player is determined by the number of round-robin games for the event.**

13 SOFTWARE & EQUIPMENT

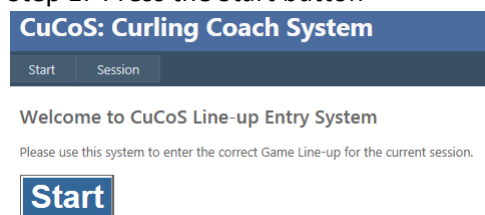
13.1 SOFTWARE DESCRIPTION – CuCoS

CURLING COACH SYSTEM (CuCoS): GAME LINE-UP

The following description is given to each team at the team meeting, together with their PIN code. Additional description has been added in blue font:

The electronic “Curling Coach System (CuCoS)” is used. A tablet PC is placed on the coach bench (chief umpire's table). Any team member can enter the line-up for the game 10 minutes after the end of the previous session, but no later than 15 minutes before the start of the first pre-game practice i.e. no later than 45 minutes before the start of the session.

Step 1: Press the Start button



This step is only required if you are the first person entering the line-up for that session. Otherwise proceed with Step 2.

Step 2: Select your team

Session - Sheet	Team Dark	Team Light	Game Status	Start Time
Men's Round Robin Session 1 - Sheet A	DEN Denmark	SWE Sweden	SCHEDULED	14/02/2018 09:05:00
Men's Round Robin Session 1 - Sheet B	CAN Canada	ITA Italy	SCHEDULED	14/02/2018 09:05:00
Men's Round Robin Session 1 - Sheet C	KOR Republic of Korea	USA United States of America	SCHEDULED	14/02/2018 09:05:00
Men's Round Robin Session 1 - Sheet D	SUI Switzerland	GBR Great Britain	SCHEDULED	14/02/2018 09:05:00

Step 3: Enter your team PIN code (use the visible number buttons) and press OK
Press "C" to clear all numbers, press "<--" to clear the last entered number.

Please identify yourself with the PIN that you received during the team meeting:

Team: **Italy**

PIN:

1	2	3
4	5	6
7	8	9
C	0	<--



If a team needs to change the Line-up after the practice or during the game, the PIN of the Chief Umpire or Deputy Chief Umpire is required.

Step 4: Check the Line-up and adjust, if required (Position and Skip/Vice-Skip)
 Select the LSD players (clockwise and counter-clockwise) and press OK.



KENNY John	4	3	2	1	A	Skip	Vice	●	●
GRAY Bill	4	3	2	1	A	Skip	Vice	●	●
FYFE Neil	4	3	2	1	A	Skip	Vice	●	●
WHYTE David	4	3	2	1	A	Skip	Vice	●	●
HUME David	4	3	2	1	A	Skip	Vice	●	●

To play with 3 players only, click on "3 Players only" - the column "1" will change to "A". Select the playing athletes as usual.

If there would be any issue to select correct players, click on "Set to Original Line-up" and start again.

Step 5: Verify the Line-up and the LSD players

Name	Position / Function
KENNY John	Skip
GRAY Bill	Vice-Skip
FYFE Neil	Second
WHYTE David	Lead
HUME David	Alternate
RUSSELL Gillian	Coach

If you see a yellow or orange warning line, please go back and adjust the selection.

- Info: The box to select the team (step 2) changes the colour to give the Chief Umpire an easy overview
 - Green: All the information has been entered correctly
 - Yellow: Line-up has been entered, but LSD players are not correct
 - Orange: Rules for line-up have not been respected (e.g. in Mixed FFMM order)
 - Blue: A line-up change during the game has been entered
- Hint: For Mixed Doubles, CuCoS is not used



13.2 SOFTWARE DESCRIPTION – CuUmS

CURLING UMPIRE SYSTEM (CuUmS): LSD ENTRY

Step 1: Start screen. Pressing the "Start" button will initialize the system

CuUmS: Curling Umpire System

Testing Home Settings CuUmS Line-ups

Welcome to CuUmS Umpire System
Please use this system to enter the LSDs for the current session.

LSD Entry

Results Entry

Usefull hints:

- Current Settings:
 - Event Database: (local) - CURSDEV_TEST
 - Out distance: 1996mm
 - Radius of the stone: 142mm
 - Measurement for stones covering the tee from: 610mm
 - Added distance to Measurement for laser devices: 0mm
 - Event IDs in the range from: 0 to 99
 - Sheets in the range from: A to Z
- The colours used in the cells are:
 - White: Normal conditions
 - Green: Player fulfilled rules for that turn
 - Yellow: Player needs to play this turn
 - Orange: Team will not fulfil rules
 - Red: Player did not fulfil rule for this turn.

Before you press "LSD Entry", please verify the correct settings, especially for Radius and laser distance. Event IDs are used to separate events (e.g. ECC-A and ECC-B). Sheets can be limited in case devices with different settings must be used.

Step 2: Data Entry overview:

Sheet selection
(grey is selected)

Team selection
(red or yellow)

Blue "1" is the first stone

Player with blue border
is selected to play
Numbers indicate the
number of LSD stones
each player played.

Green = Rule fulfilled
Yellow = Must play
In red: Message line

Check final distance

		LSD Data Entry			
		A	B	C	D
		Switzerland		Sweden	
Player		↻	↻		
MICHEL Sven	0	1	2		
PAETZ Claudio	1		1	2	
TROLLIET Sandro	2		2		
GEMPELER Simon	2		2		
SCHWARZ Benoit	0		0		
			60	120	180

Step 3: Click on the blue cell to open the numeric keypad. Make sure you press on the correct field (the full blue one) for the correct turn

Step 4: Enter the distance

Use numeric keys to enter the distance.

Values can be entered in mm or in cm (changes as soon as you press the ".").

Correct with "<-X" for one digit or use "Clear" to remove all digits. Use "out" button for stones outside the house

Finish with "OK"

Distance to centre is calculated and shown in the cell:



Note: The final LSD value might be smaller than the number you entered due to the laser correction.

KJAELL Viktor	1	26.4+r =25.3cm
---------------	---	-------------------

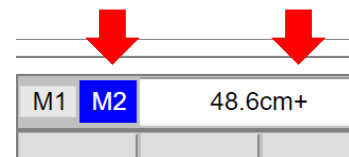
Step 5: Change sheet and measure next stone. Repeat for all sheets

Special 1: Teams with different colours in the first practice (games with coin toss selection): The results team can pre-set the team that will practice first so that the umpire gets the correct team automatically when switching between sheets. Once changed to the second team on a sheet, the second team for all sheets will be displayed

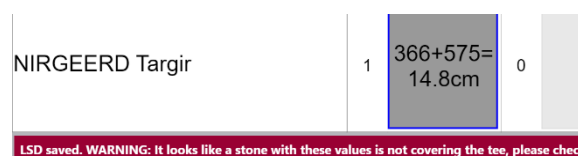
Special 2: If multiple devices are used, they are synchronized whenever a different sheet or team is selected

Special 3: **Double measurement** for stones on the tee (or too close to measure)

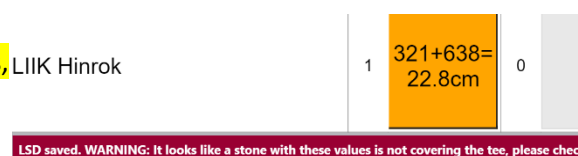
Step 4b: Instead of "OK", press "M2" to enter the second value. A "+" appears on the display. Finish with "OK"



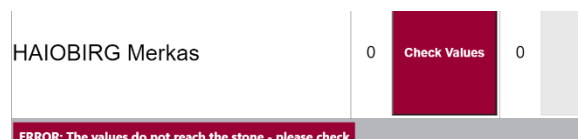
If the two values give a distance which could be measured with single measurement, an information is displayed:



If the two values give a distance which is much bigger than the radius, the value is displayed in orange and a warning is displayed:



If the two values are so small that they do not reach the stone, a red message is displayed:



Special 4: Manually adjust LSFE (when all 4 LSDs are the same or special rules apply)

The team with the letters LSFE and 😊
has currently last stone assigned
(and the border around the sheet
letter shows that colour).

To switch team, press the small
"LSFE" button and confirm the security question

A	B	C	D		
Denmark			China		
<input type="button" value="LSFE"/>	50.4cm LSFE		201.7cm	<input type="button" value="LSFE"/>	

Special 5: Change player:

Click on the grey area for the new player, confirm the security question and the blue box will change. If a value has already been entered, click again on the new blue box to open the numeric keys. The measured value will be shown; just press "OK" to confirm

CURLING UMPIRE SYSTEM (CuUmS): RESULTS ENTRY

Each umpire will get a tablet for the session to enter the results, which are then automatically displayed on the electronic sportsboards (if available), on the public scoreboard (if available), on TV and on the WCF website.

The main screen consists of multiple parts:

Sheet selection
grey is selected

Scoreboard:
Current end is highlighted grey

Navigation:
Previous or next end; Refresh to load
score from database

Red numbers

0 (for blank end), X if a team
concedes, Clear to erase a score of
an end
OK to confirm each action

Yellow numbers

Information line
Warning / error line

Line-up red team
for this game

Line-up yellow team
for this game

The screenshot shows the CURLIT Results Entry interface. At the top, there are logos for the World Curling Federation and CURLIT, and the text 'Results Entry'. A red 'X' button is in the top right corner. Below this is a row of sheet selection buttons labeled A, B, C, D, and E. Sheet C is currently selected (grey background), and sheet E is highlighted with a yellow border. Below the sheet selection is a scoreboard table with columns for Team, LSPE, and ends 1 through 14, plus a Total column. The NOR team is in red and SWE is in yellow. The current end (1) is highlighted in grey. Below the scoreboard are navigation buttons: a left arrow, a 'Refresh' button, and a right arrow. There are two sets of red number buttons (1-8) and two sets of yellow number buttons (1-8). There are also buttons for '0', 'OK', 'X', and 'Clear'. At the bottom, there is an information line and a table showing the line-up for both teams.

Team	LSPE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
NOR																0
SWE	*															0

Team	Line-up		
NOR	ALSRAD Thames	S	4
	NIRGEERD Targir	V	3
	SVEI Chrostaffir		2
	PITIRSSAN Heeverd Ved		1
	HAIOBIRG Merkas		A
SWE	IDON Nokles	S	4
	IROKSSAN Asker	V	3
	WRENEE Resmas		2
	SANDGRIN Chrostaffir		1
	LIIK Hinrok		A

To enter the score of an end, press the appropriate number of the team scoring, either for red or for yellow:

Example:
Press 1 for yellow

0	OK	X	Clear
1	2	3	
4	5	6	
7	8	/	L

Press OK to save score for yellow team 0-1

The selected box is shown in dark colour

The information line shows the score

Confirm with OK

The information line will display confirmation:

Result for end 4 saved.

The score is updated and current end adjusted

Team	LSFE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
NOR		0	1	1	0											2
SWE	*	2	0	0	1											3

Special situations:

1. Correct score:

Navigate to the end where you have to correct the score

Team	LSFE	1	2	3	4	5	6	7	8	9	10
NOR		0	1	1	0						
SWE	*	2	0	0	1						

← Refresh

The end to be corrected is highlighted in blue to indicate "not current end"

Team	LSFE	1	2	3	4	5	6	7	8	9	10
NOR		0	1	1	0						
SWE	*	2	0	0	1						

← Refresh

Enter the correct score and confirm with OK

2. Remove a score:

Navigate to the end where you have to remove the score and press the Clear button

OK	X	Clear
----	---	-------

A warning message will appear, check sheet and end and confirm

Press the green OK to confirm

Please confirm here to erase the result of this end and click on OK to execute on the database

Press OK to execute on the database

OK Cancel

3. End of game:

Enter the score of the last end. If the score is not tied, "Game over" is displayed.

For an extra end, continue just the same as for all other ends.

If a team concedes, use X and confirm like a regular score by pressing the green OK. "Game over" is displayed.

Team	LSFE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
GBR		1	0	2	0	1	0	1	0	1	0					6
USA	*	0	0	0	1	0	0	0	2	0	2					5

Team	LSFE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Total
SUI		0	2	1	0	0	0	0	8	0	0	1				12
RUS	*	0	0	0	0	2	1	2	4	0	2	0				11

4. Line-up Change

When a team coach enters a line-up change in CuCoS, it can be seen immediately as "Pending Line-up Change"

Pending Line-up Change End 8				
RUS	STUKALSKIY Alexey	V	4	V STUKALSKIY Alexey
	ARKHIPOV Evgeny		3	ARKHIPOV Evgeny
	DROZDOV Andrey	S	2	S DRON Petr
	DRON Petr		1-A	DROZDOV Andrey
	KOZYREV Alexander		A	KOZYREV Alexander

Red players go out, green indicates new player or function, yellow shows changes.

When the change actually happens (i.e. triggered by the results team), the title changes to "Line-up Change End x".

The change is also explained in the text.

Team	Line-up			Line-up Change End 7
SUI	SCHWERZ Binaot	S	4	S MEIRKO Damonok
	PEITZ Cleadoa	V	3	PEITZ Cleadoa
	MEIRKO Damonok		2	di CRAZ Pitir
	TENNIR Velinton		1	V SCHWERZ Binaot
	di CRAZ Pitir		A	TENNIR Velinton

TROLLET S replaced GEMPELER S at the beginning of end 7
 Revised line-up: (4 S) SCHWARZ B, (3) PAETZ C, (2) TROLLET S, (1 V) MICHEL S

Training Opportunity

The handling of both applications, CuCoS and CuUmS, can be trained on the test environment: <https://curlit.com/test/>.

It can be used on the computer, but a tablet or a big mobile phone show a more realistic layout.

For CuCoS, the chief umpire test-password is 111, the deputy chief umpire is 222.

The game status can be reset on the main site to allow clearing data and starting again.

Please keep in mind that if multiple users are testing at the same time, data can be overwritten.

13.3 EYE ON THE HOG – HOG LINE VIOLATION DETECTION

GENERAL

Eye on the Hog is a system that provides impartial hog line judging for the sport of curling. It uses innovative technology to detect a magnetic strip frozen into the ice at the hog line and a bare hand touching the handle. Circuitry in the handle turns on green lights after a valid release or flashes red lights if a violation has occurred.

OPERATION

Eye on the Hog electronics activate and the red LEDs flash when the stone is tilted to an angle of 70 degrees, with a bare hand touching the coated handle grip. When the stone is returned to the playing position and the grip is released, the green LEDs flash quickly for ten seconds and then slowly for two minutes. If the grip is not touched, the electronics will turn off after the slow flashing stops. If the grip is touched, the LEDs turn off to prevent distracting the curler during delivery. When the grip is released before the hog line, the green LEDs flash until the centre of the stone crosses the centre of the hog line magnet; then, the green LEDs turn on for five seconds to indicate a valid delivery. If the grip is not released before the centre of the stone crosses the centre of the hog line magnet, a violation is indicated for twenty-five seconds by flashing red LEDs. The touch sensor remains on for a short interval after the hog line is crossed. If the grip is touched in this interval, indication will switch from valid to violation. Alternating red and green LEDs indicates a low battery.

Handle operation should be verified before a competition.

MOUNTED-HANDLE TEST (USING HOG LINE MAGNET)

With a bare hand touching the grip, tilt the stone on its striking surface to activate the electronics, the red LEDs should flash momentarily.

Return the stone to its running surface and release the grip and the green LEDs should flash rapidly.

Touch the grip with one finger and the LEDs should turn off.

Without touching the grip, push the stone over the hog line magnet at a normal curling speed. The green LEDs should turn on for five seconds.

After the green LEDs turn off, wait two seconds and then reactivate the electronics. With a bare hand touching the grip, push the stone over the hog line magnet at a normal curling speed. The red LEDs should flash for twenty-five seconds.

CURLER'S INSTRUCTIONS

Curlers should be familiar with the following guidelines to ensure proper operation of the system. Prior to delivering a stone, the handle electronics must be activated by tilting the stone with a bare hand touching the grip. After it is activated, if the grip is not touched for two minutes the electronics will turn off and will have to be reactivated. To verify that the system is working, release the activated handle grip and observe that the green LEDs flash. Touch the grip and observe that the green LEDs turn off. The touch sensor in the handle was designed to detect a bare hand, therefore a glove or mitt must not be worn on the delivery hand during the delivery of a stone. Flashing red LEDs indicate a hog line violation. Solid green LEDs indicate a valid release. Alternating red and green LEDs indicate a low battery and the officials should be informed.

CAUTION:

- Brushes and shoes can damage the coated handle grip and the LEDs. Do not push the handle with brushes or shoes.
- Do not invert the stone on the ice with the grip contacting the ice. The grip coating can be damaged.
- If a handle becomes loose, do not attempt to tighten it by rotating the handle. This can damage the battery carrier. Have an official or ice technician properly torque the mounting screw.

13.4 EYE ON THE HOG – MALFUNCTION PROCEDURES

This information should be included in the Team Meeting Document so that players are aware of the following procedures:

- Alternating red and green lights flashing quickly indicate that the handle has not been properly set. The player must reset the handle before delivering the stone
- Alternating red and green lights flashing slowly indicate a low battery. The delivering player should call for an Umpire using the "X" signal. The player will then have the option of having the handle changed before the delivery, or continuing with the delivery while an Umpire views the release at the hog line
- No lights indicate a faulty connection. The delivering player should call for an Umpire using the "X" signal. The player will have the option of having the handle changed before the delivery, or continuing with the delivery while an Umpire views the release at the hog line
- If flashing red lights are believed to have come on before the stone had reached the hog line at the delivering end – the sweepers should pull the stone to the side of the sheet, get it across the back line as quickly as possible, and call for an Umpire using the "X" signal. The Umpire will call for an Ice Technician to test the handle. If the Ice Technician deems the handle to be properly functioning, the stone will be considered a hog line violation. If the handle is deemed to be faulty, the player will be allowed to redeliver. The time clock will not run during that delivery

Any stone that shows red lights must be stopped before it crosses the hog line at the playing end or it will be treated as a hog line violation. Exception: if an LSD stone shows red lights then the team should NOT stop the stone but let it continue. The stone will be checked after it has been measured. If the handle is functioning properly the stone will be considered a hog line violation and counted as a maximum distance (199.6 cm). If the handle is faulty then the measurement will stand.

13.5 HAND OR BODY PRINTS – RULE CLARIFICATION

R10 (A) - EQUIPMENT

No player shall cause damage to the ice surface by means of equipment, hand prints or body prints.

- The GU shall stop the time clocks and take action if a serious incident is observed or if the opposition team requests a ruling
- The GU should determine if the touch is 'incidental' or 'avoidable'
- If the incident was avoidable (e.g. – placing the hand or knee on the ice for an extended period after delivering a stone, placing a hand on the ice in the house while calling sweeping) it has to be determined, with the assistance of the CIT or DCIT, if damage was done
- If no damage, no action taken. If damage has been done it should be repaired

PROCEDURES

- 1st incident = 1st official on-ice warning, repair damage
- 2nd incident = 2nd official on-ice warning, repair damage
- 3rd incident = repair damage and remove player from the game, an alternate is not allowed to replace this player

These warnings will be cumulative and are counted within two sections:

Section 1 – the round robin (remove player on the 3rd cumulative incident)

Section 2 – the play-off games of the event (remove player on the 3rd cumulative incident)

If a player is removed from one game, that player can return for the next game(s) within that section of the event. If a further incident occurs by that player, he/she is removed immediately from that game.

13.6 CARE OF CURLING STONES

- The running edge of a curling stone is prepared to a detailed specification and must be protected at all times from coming into contact with any abrasive surface, however fine. Placing the stones on pavement or any similar surface will contaminate the running edge with minute particles of abrasive dust and could alter the performance of individual stones. Any damage to the running surface will alter the stone's performance and characteristics
- Grease, oil or any other viscous liquid will, if it comes in contact with the running edge, enter the molecular structure of the granite and affect performance. Keep clear of all contaminants. Also avoid placing stones on top of ice rink surround barriers when removing them from the ice
- Curling stones are intended to strike other stationary stones that are on a low friction surface (ice). Stones should not be directed at each other from opposite directions. This doubles the striking momentum and doubles the force exerted on the striking band, which may cause damage to the striking band, or even fractures in the body of the stone
- Stones are supplied in matched pairs and each set (16) are also matched to give consistency throughout the set(s). If the handles of the stones are removed, note which handle belongs to which stone, so that when they are reassembled they will be correctly matched. There is normally a matching list available for all stones used in WCF competitions
- If it is necessary to substitute a stone, it is best to substitute a pair of stones rather than a single stone. Use the substitute pair of stones as the lead player's stones, playing them for a few ends to break them in. If possible, dragging them in a stone dragger about 10 times up and down a sheet of ice will break them in more quickly
- Every stone is numbered to ensure accurate records of each stone
- When transporting stones in a vehicle, remember that each stone weighs 18kg. Ensure they are firmly wedged against movement caused by accelerating, braking or cornering. An 18kg projectile can cause serious damage to vehicles and people. Placing the stones on a clean piece of cardboard or soft carpet will help protect the running surface during transport
- Remember to allow sufficient time for the stones to cool - up to 72 hrs (normally 48 hrs will suffice) before attempting to play with them. Occasionally when stones are brought into an arena and the humidity is high wiping the stones down to keep them as dry as possible or covering them with a foil type blanket will prevent the condensation freezing and forming ice on the stone which will affect the stones performance
- If stones are to be stored for any length of time remember to loosen the plastic handle to prevent damage due to expansion and contraction

14 FIELD OF PLAY & FUNCTIONS

14.1 TEAM ACCESS TO FIELD OF PLAY (FOP)

Access to the FOP by players / coaches / officials is allowed in the following circumstances:

- An Umpire is present inside the FOP
- Practice sessions – training day, pre-game and evening practice, play-off practices
- Team time-outs (restricted to one person, plus a translator if required, coming from the coach bench)
- In case of injury - medical personnel and coach, plus translator if required
- Ceremonies and other special activities approved by the CU

Note: There will be **no access** to FOP at the conclusion of the games - coaches and alternate players may meet with their teams outside the boards so as not to interrupt other games in progress

- The players plus a maximum of 2 FOP accredited team members from each Association / Federation are allowed inside the FOP for practice sessions
- All (players/coaches/officials/translator) must wear proper uniforms when accessing FOP - this includes footwear that has not been worn outside. Players must be in identical uniforms for games and practice sessions as per the WCF rules and policies. Coaches and other team officials may wear either a team uniform or an Association / Federation uniform.

Note: Jeans are not considered appropriate clothing

- Where accreditation is issued, all players/coaches/officials must have appropriate accreditation for access to FOP. If players leave the FOP during a game, they should have accreditation to clear any security check-points
- Specific entrances for access during team time-outs will be indicated by the CU at the Team Meeting. Where possible, access will occur at the home end in a location that will not impact other games or media activities occurring inside the FOP
- Media access to FOP will be restricted to those with appropriate accreditation (e.g. – armbands, etc.) and will be regulated by the WCF Media Relations Officer, in cooperation with the Umpires. Disruption of games should not occur
- The CIT will regulate ice crew access to the FOP. They must be aware that other games may be in progress and should walk behind the scoreboards where possible
- Any team member ejected from a game by the CU is denied access to the FOP and the coach bench for the duration of the suspension

14.2 COACH BENCH

- The Original Team Line-Up Form will be distributed at the Team Meeting and teams must indicate on this form which person(s) will be their coaching staff
- On the coaches bench for WCCs the spaces on the bench must be the alternate plus a maximum 2 other team officials, one of whom is the translator (if required). For Mixed Doubles and Mixed Events this is only for the coach and one other team official/translator (if required)
- Access to the coach bench will only be allowed when their team is playing
- Accreditation must be worn at all times. Only a nominated person showing the proper accreditation will be allowed access to the coach bench
- Any person occupying a position on the coach bench who is not listed on the form will be asked to leave immediately. Any team member ejected from a game by an Umpire is denied access to the coach bench and Field of Play (FOP) for the duration of the suspension
- The proper dress code must be adhered to when occupying a position on the coach bench, or access will be denied. This means no blue jeans, proper footwear, and either the team uniform or the Association jacket. A warm jacket may be worn over the uniform but must be removed before entering the FOP
- Persons occupying a position on the coach bench should remain seated as much as possible except when leaving the coach bench or proceeding to the FOP
- When a team time-out is called, the person with coach bench privileges who goes to the FOP must have been sitting on the coach bench when the time-out was called
- Verbal, visual, written, electronic or other communication between persons on the coach bench and teams on the ice is not allowed and is considered unacceptable conduct. There shall also be no communication of any sort from the coach bench to anyone who is not sitting in that designated area. Violation of this rule could result in that person being ejected by the CU, or DCU, from the competition area for that game
- Displaying a team mascot or flag is not allowed and the coach bench must be 'clean' at all times (please remove rubbish at the end of the game). Team cheers and yelling are not permitted
- Alcohol in the playing area and on the coach bench is not allowed
- Coaches will sit on the coach bench on the same side as their stones on-ice (facing the FOP)
- The two persons taking a position on the coaches bench can change from game to game. If a team must change a person on the coach bench (extenuating circumstances, i.e. sickness), the CU or Deputy CU will consider the circumstances and their decision is final
- If a properly accredited translator is assisting a team, access to the FOP and the coach bench will be allowed providing the translator is properly dressed and is one of the team officials on the coaches bench for that game (i.e. – during a game, only the people from the coach bench can have access to the FOP)
- Coaches and other team personnel sitting on the coach bench cannot watch or listen to broadcasts. For any violation, the offending person will be removed from the coach's bench for that game

14.3 TEAM PARTICIPATION IN FUNCTIONS & CEREMONIES

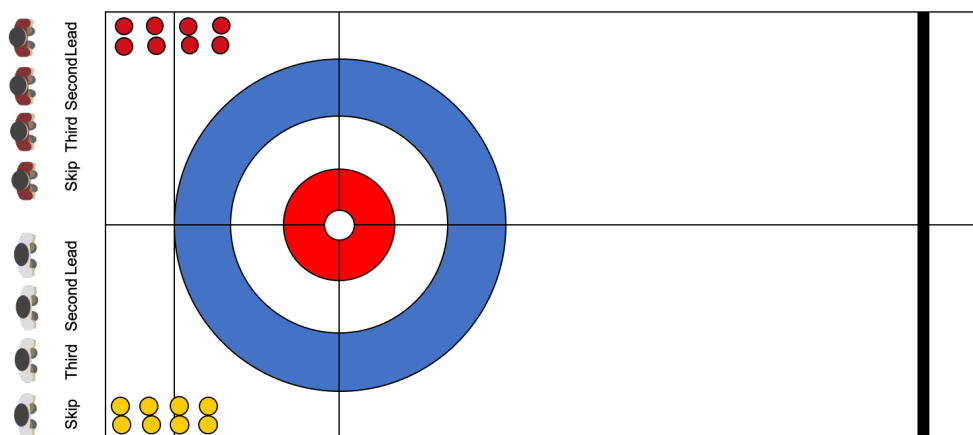
There are several meetings, functions, and ceremonies during a competition. The list below shows how teams should attend the functions and ceremonies.

TEAM MEETING

- One player and one team official must attend the Team Meeting. When a team has no team official(s) registered, two players have to attend the meeting. Failure to do so, without approval of the Chief Umpire, results in the forfeit of the last stone advantage for that team in its first game. Should a team have an accredited translator, that person is allowed to join the team meeting as a third person

PRE-GAME TEAM INTRODUCTIONS

- Teams are standing behind their stone colour (red stones on the left when looking down the ice from the player view in the hack)
- The lead of team red is to the very left, the skip of team yellow to the very right. That allows TV to start from right and introduce in one flow from right to left (red team from lead to skip, followed by yellow team lead to skip. The Skip of each team, never mind what position they throw, should be the last person of the team being introduced



OPENING FUNCTION

- There is no mandatory requirement for the LOC to organise an opening function
- However, if there is a function, teams will be invited individually, but there is no obligation to take part in the function. If the event will be longer than 60 minutes, the LOC has to provide seats for all participating and a proper meal must be served
- The dress code is the responsibility of the LOC, but no blue jeans are allowed

OPENING CEREMONY

- If there will be an Opening Ceremony, all teams have to be part of the ceremony
- There will be a march-in of all athletes and a maximum of one coach per team
- Teams should wear matching team uniforms as well as curling shoes

CLOSING CEREMONY / MEDAL CEREMONY

- Only medal teams will march-in for the ceremony
- The march-in will include all medal athletes and a maximum of one coach per team
- Teams have to wear team uniforms as well as curling shoes

CLOSING BANQUET

- LOC will provide tickets for free or for sale to all teams and if space is available, also for the 3rd team officials, families and spouses
- There is no obligation for teams to take part in the function
- Dress code will be business attire – no blue jeans allowed!

14.4 ITOs HELP DURING CEREMONIES

For any ceremonies in the FOP, the LOC and WCF TD might need help from the GUs for the march-in of the teams.

In this case, the CU will be responsible for any cooperation and will provide his crew with the necessary information.

14.5 SPORTSMANSHIP BALLOTS

The following events have a Sportsmanship Award:

- World Men's Curling Championship
- World Women's Curling Championship
- World Junior Curling Championships
- World Wheelchair Curling Championship

Ballots will be distributed by the WCF TD and the CU to the players immediately before their last round robin game and will be collected before teams leave the arena.

The CU shall be the only person to tabulate the results. The Award will be handed over to the winning player during the Closing Ceremony through a special guest or the CU. Please note, if the winner of the award is not part of the medal teams, the winner should be informed before the ceremony by the WCF TD, so that he or she is available close to the FOP.

The Award will be provided by WCF.

14.6 PROCEDURES FOR BLOOD AND HEAD INJURIES

While the risk of one athlete infecting another with HIV/AIDS during a competition is close to non-existent, there is a greater risk that other blood-borne infectious diseases can be transmitted. For example, hepatitis B can be present in the blood as well as in other body fluids. Precautions for reducing the potential for transmission of these infectious agents are important.

If a player incurs an injury that causes bleeding, the Umpire must immediately stop the game and require the player to leave the playing area and summon medical personnel for appropriate treatment. If the Umpire does not notice the bleeding the athlete should approach the Umpire and request a technical time-out (injury).

BLOOD ON CLOTHING

If the blood is minimal and has not saturated the player's clothing or is not dripping, the player may choose to continue to play without changing uniforms, but the uniform should be treated with blood spill kit contents. If the blood has saturated the player's clothing or is dripping and the player chooses to continue to play, the player is required to replace the affected clothing for the remainder of the game and to cover the open wound with a bandage that will withstand the activity. It is understood that the new uniform may not match the team's uniform. However, the player must wear the correct uniform for all other draws. The uniform must be washed according to hygienic methods. If the player chooses not to continue, the game will continue in accordance with WCF Rules of Curling. If the player cannot change the uniform in a reasonable amount of time, the game will continue in accordance with WCF Rules of Curling. Delay of game should be minimized.

BLOOD ON EQUIPMENT

Use blood spill kit procedures or replace. Delay of game should be minimized.

BLOOD ON ICE

- Let it freeze
- Use the hand-blade to scrape it off, if necessary hot-mop
- Use blood spill kit procedures. If, after applying the bleach solution, you want to clean it with water, always use HOT water – but make sure it is the same "quality" the ice-crew uses. The best is to inform the ice-crew and let them do the ice. After the affected section of ice has been cleaned, the section of ice may be re-pebbled. Delay of game should be minimized

BLOOD ON THE STONES

- Wipe off any blood
- If necessary, clean with a quickly evaporating but NOT oily fluid (e.g. – Acetone)

Disposal of the liquid with the blood must be treated for 30 minutes with bleach before pouring down a drain. For any cloths (paper or cloth) used in mopping up the blood, use a treatment of bleach for the cloth, and dispose in an approved box for the purpose of hazardous materials.

STANDARD OPERATING PROCEDURES FOR SMALL BLOOD SPILLS

These procedures can be used for cleaning up spills of blood and other body fluids. For larger spills that go beyond your ability to clean with the supplies on hand, contact the medical staff.

STEP 1: PERSONAL PROTECTIVE EQUIPMENT (PPE)

Prior to beginning the clean-up, don a pair of rubber, latex, PVC or similar type gloves. For small blood spills no other PPE should be required. For larger spills where there is a possibility of contaminating your face or other parts of your body, contact the medical staff.

STEP 2: BLOOD SPILL KIT EQUIPMENT

The following items may be needed in handling the spill:

- 10% bleach solution
- gloves
- clear plastic bags
- biohazard labels
- leak-proof sharps containers (seek source from your medical personnel)
- brush & dustpan, or tongs or forceps for picking up sharp objects
- disinfectant wipes

STEP 3: BLOOD SPILL KIT PROCEDURES

Cover the spill area with freshly mixed 10% bleach and water solution. Allow solution to soak into the contaminated material. Work from the outside edges of the spill inward when applying the bleach solution. All glass, needles, or other sharp objects that may puncture the skin must not be picked up by hand. Only mechanical means such as a brush and dustpan, tongs, or forceps are allowed. If you do not have such equipment available, contact medical staff for clean-up.

Wipe bleached area with paper towels or absorbent pads. It may be necessary to use a scrub brush to remove the material if it impacted a hard-porous surface such as concrete. If non-porous surfaces such as a carpet have been contaminated an outside vendor may be needed to clean an area.

DISPOSAL

Place bleached material, gloves and other disposable materials into a labelled biohazard bag or container. Ensure lids are firmly sealed on all waste containers when spill clean-up is complete and contact medical staff for disposal.

STEP 4: DECONTAMINATE RE-USABLE EQUIPMENT

Decontaminate with the bleach solution all potentially contaminated re-usable tools or protective equipment used in the clean-up. This includes dustpans, brooms, forceps, buckets etc. Anything that cannot be effectively cleaned (bleach solution must be able to make contact with all surfaces) must be disposed as waste. After the contaminated area has been cleaned, use fresh water to remove bleach residue from all surfaces.

STEP 5: WASH YOUR HANDS

If hand-washing facilities are not available at the venue use disinfectant wipes and then wash your hands as soon as possible.

BIOHAZARD EXPOSURE

If you believe you were exposed (skin puncture or splash to eyes or mucous membranes) to biohazard material that had not been decontaminated with the bleach solution, follow these recommended steps:

Skin exposure: Remove contaminated clothing and shoes and vigorously wash affected skin with plenty of soap and water.

Eye exposure: Wash eyes for at least 10 minutes with copious amounts of water, lifting the upper and lower eyelids occasionally.

Seek follow-up medical attention as needed.

HEAD INJURIES

Recently, awareness of the impact of head injuries during sport activities has increased. Concussions are defined as a blow to the head or a bump. A concussion is a mild traumatic brain injury. Concussions will affect people in four areas of function and the symptoms might not occur immediately.

1 - FOUR AREAS AFFECTED

- Physical - this describes how a person may feel; headache, fatigue, nausea, vomiting, dizziness, etc
- Thinking - Poor memory and concentration, responds to questions more slowly, asks repetitive questions. Concussions can cause an altered state of awareness
- Emotions - A concussion can make a person more irritable and cause mood swings
- Sleep - Concussions frequently cause changes in sleeping patterns, which can increase fatigue

2 - YOUR ROLE AS AN UMPIRE:

Should you notice any of the above symptoms, the official should notify the coach that a player is apparently injured and advise that the player should be examined by an appropriate health care professional. Injured athletes can exhibit many or just a few of the signs and/or symptoms of concussion. **However, if a player exhibits any signs or symptoms of concussion, the responsibility is simple: remove them from participation.** In an effort to cause no further injury, caution should be exercised when removing a player from the ice following a fall if the athlete is not able to stand on his/her own. Removal should occur with the assistance and supervision of medical personnel.

Apart from the procedure for handling of blood and head injuries, all Umpires should be alert to any player or coach who may show signs of illness or injury.

14.7 WCF PROCEDURE FOR EVACUATING A BUILDING DURING COMPETITION PLAY AND / OR PRACTICE

Even we have a procedure in place, you always have to follow local laws and instructions from the local rescue service.

TEAMS

Coaches, Assistant Coaches, Team Managers or any other team official are responsible for reviewing the emergency evacuation plan in every arena.

Team support staff have to make sure they have completed the following:

- Look for clearly marked egress routes that are as short and direct as possible
- Make sure to explain to their Players the evacuation procedure plan

WHEN YOU HEAR THE ALARM:

- **REMAIN CALM**
- If your team is on the ice when the Alarm goes off, get all your players to the coach bench and explain to them that they are all to stay together and exit the building (NO RUNNING, or SCREAMING)
- Leave the building immediately by the nearest safe exit
- Close doors behind you
- When you have reached the outside, move away from the building and go to the designated safe assembly area
- Immediately do a role call to account for all players and Team Staff. Then report immediately to the Umpires in charge once all your team members are there
- Do not go back into the building for any reason. The Fire Department will advise when it is safe to re-enter the Arena
- **DO NOT USE ANY ELEVATORS**
- **DO NOT CHANGE OUT OF YOUR GAME OUTFIT**
- **DO NOT PACK UP YOUR CURLING EQUIPMENT OR BROOM-BAG**
- **FOLLOW INSTRUCTIONS FROM LOCAL RESCUE SERVICES**

TECHNICAL OFFICIALS

ITOs are also responsible to review the emergency evacuation plan in every arena.

They are to make sure that they know:

- Where the clearly marked egress routes are, and confirm they are as short and direct as possible
- Designate one person of the ITO team who will call the emergency telephone number. That person needs to carry their mobile phone with them at all time. Make sure on preparation day to check that the network will work – or if it does not, make sure you know the location of alternate phones in the venue
- Have a list of all emergency phone numbers as well as the arena address handy

WHEN YOU HEAR THE ALARM:

- Make sure that all teams have left the Field of Play before the last ITO leaves.
- The umpire in charge should inform the WCF Event TD of the incident immediately.
- Leave the building as soon as possible.
- **DO NOT** panic and do not run.
- **DO NOT** use any elevators
- **DO NOT** post any scores on scoreboards
- **DO NOT** take pictures of the situations on the ice
- **DO NOT** pack any equipment
- **FOLLOW INSTRUCTIONS FROM LOCAL RESCUE SERVICES**

When you have reached the outside, move away from the building and go to the designated safe assembly area. The CU/DCU will immediately do a role call to account for all ITOs. He/she then reports to the TD once all ITOs are there.

Do not go back into the building for any reason. The Fire Department will advise when it is safe to re-enter the Arena.

The CU/DCU or any other Umpire in charge will check with the team staff at the assembly area that all teams and all ITOs are there.

15 MEDIA & BROADCASTING

The World Curling Federation's media and broadcast teams work to ensure maximum worldwide exposure for the sport of curling. This work relies heavily on space being shared with staff and officials – primarily on and around the Field of Play. These teams appreciate the co-operation and teamwork from everyone involved to ensure that all parties can fulfil their duties well.

This section of the manual details some of the processes the media and broadcast teams follow for post-match interviews and photographing curling. It also offers advice about the use of social media for officials and athletes.

15.1 DEALING WITH THE MEDIA

GUIDELINES FOR PLAYER INTERVIEWS

- Post-game interviews may be conducted outside the Field of Play (FOP) at a designated location adjacent to the FOP. The WCF's media official – Head of Media, Media Officer or Broadcast Manager - on-site will advise of a Mixed Zone (interview area) between the FOP exit and athletes changing rooms
- Athletes may only exit the FOP via the designated exit and through the Mixed Zone
- Although not compulsory, all athletes should acknowledge interview requests in the Mixed Zone area. If they do not wish to conduct an interview, athletes must inform the media politely
- While a game is in progress, flash or extra lights will not be permitted in the interview area adjacent to the FOP
- When all games are completed, interviews and the use of flash and extra lighting may be allowed within the FOP subject to the CU's approval, but not on the ice surface
- Specific interviews will take precedence over general interviews in the designated area. TV interviews will always take priority and will be followed by interviews for written media
- It will be presumed that all junior athletes have permission to speak with the media. Junior players will be informed of this and the interview procedures at the Team Meeting. At this point, athletes or coaches should identify any concerns or restrictions with media activity
- Any athletes or coaches who have concerns or would like advice in relation to media interviews should contact the event media official
- The event media official may wish to brief athletes at the team meeting about interviews and photography and will arrange this with the CU and/or TD

15.2 MEDIA INTERVIEWS

The only Umpire who ever talks to the media is the CU and only when a particular situation or incident makes a statement necessary, however any statements should be provided to media through the onsite media official. **The CU should consult with the media official prior to engaging in any media interviews and make him aware of any media requests. If it is deemed appropriate that the CU provides the media an interview, the media official must accompany the CU.**

The listed guidelines should be followed when giving media interviews:

- The number one item to remember when talking to the media is that "nothing is off the record". Anything you say to a reporter at any time may be used by the reporter in a story
- Ensure you know exactly what you are going to say about the situation at hand. Do not let the interviewer side-track you to another issue or put words in your mouth

- Remember how to say "no" – not every question must be answered. If a reporter requests confidential information, say no, directly and politely
- You may even turn the question into an opportunity to make a positive statement
- Make your answers clear, short and to the point. Do not be afraid to leave the interviewer with dead air. It is the reporter who will look bad – not you
- If you are working with a "scrum" of reporters, once you feel you have made your point and there is really nothing further that can be added, excuse yourself and leave, again, politely
- Should a situation involve any sort of a conflict with a player, be very careful not to get into a situation of making any comments about the player other than to suggest what procedure is to be followed to handle the situation
- If the WCF's media official is available at an event, the CU should liaise with the MRO regarding procedures ahead of any media interviews
- If the media official is not onsite, the WCF's Head of Media must be informed of any statements being provided to the media

15.3 CODE OF CONDUCT FOR PHOTOGRAPHERS

ALL PHOTOGRAPHERS MUST BE IDENTIFIED WITH AN APPROPRIATE MEDIA ACCREDITATION. FAILURE TO COMPLY WITH THESE REGULATIONS MAY RESULT IN THE IMMEDIATE WITHDRAWAL OF YOUR MEDIA ACCREDITATION.

These regulations have been put in place by the World Curling Federation (WCF) in order to ensure the smooth operation of photographers accredited for WCF events.

Generally, photographers are allowed onto the Field of Play (FOP) during curling championships and can shoot from:

- anywhere between the hog lines on the carpeted areas separating the sheets of ice
- the corners of the arena
- behind the sheets of ice, in between the scoreboards, but not directly in front of or behind the scoreboards
- Please pay particularly close attention to rules d), h) and i) below

In all cases, this is provided that you are not obscuring the vision of spectators, blocking the scoreboard, in the way of the players or are a particular visual distraction to the WCF host broadcaster World Curling TV (WCTV) or Rights-Holding TV Broadcasters (RHBs).

The WCF Media team has created a visual document for photographers explaining this code of conduct. This can be provided by the onsite media official.

PHOTOGRAPHING A CURLING CHAMPIONSHIP – THINGS TO WATCH FOR

Competition: Team names are posted on the scoreboards.

Pre-game action: Prior to the start of each draw (round of games), each team receives practice time on the sheet of ice they will be competing on, usually starting 30 minutes before game time. The final minutes before the official start of competition are used for team introductions and final preparation of the ice.

A game of curling: A game usually lasts ten ends. An 'end' usually lasts 15 minutes. The action goes down and back, from one end of the sheet to the other, hence the name 'ends'. Games going to 'ten ends' will finish at the 'home end'. However, teams can concede at any point after six ends in round robin games and

eight ends in play-off and medal games. Watch the scoreboard and if a team is losing badly look for players shaking hands and conceding the game early after the last stones have been delivered in an end.

Last stones may not be delivered: If a team needs two points to win and has no stones in scoring position with only one stone remaining to play, the game will end without last stones being delivered.

Field of Play (FOP) personnel will try not to obstruct your sightlines. However, they must move to perform their duties and will occasionally interfere with your photography.

KEY PHOTOGRAPHY RULES

- a) Flash photography is not allowed at any time
- b) Please turn your mobile/cell phone off before entering the FOP. Silent or vibrate settings are permitted
- c) You are not allowed on the ice surface at any time
- d) You are requested to wear dark clothing and to wear shoes that have only been worn indoors or shoe covers whilst at work in the FOP. Failure to do so will result in being denied access to the FOP and the possibility of accreditation being revoked
- e) Please photograph from a sitting/squatting position. Move along the walkway at appropriate intervals in order not to consistently block the view of the same spectators
- f) Leave camera bags and non-essential bulky equipment outside the FOP
- g) Always walk, do not run inside the FOP
- h) When preparing to move either along a walkway or across the end of a sheet – remember that other games may be going on at the same time – make sure to look down both adjacent sheets to ensure that no player is in the process of delivery. If one is, then please await the completion of the delivery before moving. When crossing the end, cross behind the scoreboard, not in front. Please be mindful of any WCTV or RHB camera, which may also be on the same walkway
- i) If the game you are photographing is being covered by TV please ensure you photograph from the same walkway as the WCTV cameras, not the opposite walkway. Please sit alongside the TV camera tripod to stay out of the TV shots
- j) When a player is about to deliver a stone, you must be behind him/her or between the hog lines
- k) Please be aware that the WCTV or RHB cameras may move along a walkway or to a different walkway during any draw. Please cooperate with any request regarding the moving of cables, cameras, etc
- l) For the semi-final and final, special instructions will be issued on photography locations. Only one photographer per affiliation will be allowed onto the carpeted area/walkway designated for photographers located adjacent to the game sheet. All other photographers from the same affiliation must position themselves on a non-adjacent walkway behind or to the side of the playing area. *Certain photographers may also be allowed a key position behind the scoreboard*
- m) Photography instructions regarding the presentation of the championship trophy will be issued prior to the final
- n) For certain events an armband policy for access to the FOP may be implemented

Please note: the WCF media officer(s), CU and local organising committee media representative(s) should collectively monitor how photographers are working on the FOP. If there are any issues the Media Officer should be made aware and the photographer(s) briefed. It is best that such issues are handled through one point of contact. As standard, the WCF permits a maximum of six photographers in the FOP at one time.

15.4 SOCIAL MEDIA

Athletes and coaches are responsible for their own social media communications, regardless if they are run by third parties such as agents, Member Association media officers or other individuals.

Social media refers to ANY form of digital communication, which will be deemed as public communication. Sharing posts with inappropriate content will be considered punishable under WCF Rules of Curling Rule R17. Inappropriate Behaviour.

Any posts relating to race, faith, disability, sexual orientation, or which are interpreted as inappropriate comments directed towards ITOs, athletes or coaches, should be brought to the attention of the CU.

The CU should immediately inform the Head of Competitions who will then decide whether or not the case should be referred to the WCF President and Secretary General. Collectively the CU, the Head of Competitions and, if referred to, the WCF President and Secretary General, will decide whether direct action is required to be taken by the WCF.

Punishment for such communications includes a formal warning for minor infractions and the relevant MA will be notified. For serious infractions, the perpetrator will be immediately suspended from present and/or future competition.

Individuals found in breach of these rules will be asked to immediately remove the communication and apologise immediately thereafter on the social media outlet.

Athletes and coaches are advised to speak with Media Officer on-site if they have any questions regarding their social media usage at an event.

SOCIAL MEDIA FOR OFFICIALS

Social media channels are the most common method of public and private communication today. It can take only a moment on a smartphone, made in the heat of the moment, and comments can be available to millions of people for an indefinite time.

The lesson for officials is the same as for everyone else: assume that nothing on social media is private. Everyone should only post things that they are willing to have read by anyone, including other officials, players, coaches and fans – even the media.

People expect officials to be fair and impartial, and speaking in glowing or harsh terms about a specific player, coach or team may bring under question your ability to be objective.

The safest approach is to never make public comments about coaches, teams, players, games and other officials. If you wouldn't say it publicly, don't post it. The Umpire's job is to officiate games, not to talk about them. It seems simple, but always think before you post.

16 GENERAL INFORMATION

16.1 CURLING EXPLANATION

Curling is a sport played on ice between two 4-player teams. Each player throws two stones alternating with his/her counterpart on the opposing team. When all 16 stones have been played, the 'end' is complete, and a point is scored for every stone nearer to the centre of a target ('house') than any stone of the opposing team. Only stones in the house count towards the score, and only one team can score per end. Play then resumes in the opposite direction and the team that scored in the previous end delivers the first stone. A game consists of 8 or 10 ends and the team scoring the most points wins.

EQUIPMENT: Stones weigh about 20 kg and are made of granite. Curling shoes have one sliding foot and one gripping foot. The brushes have to be compliant with the WCF approved equipment.

SWEEPING: Proper sweeping melts the top of the ice forming a thin layer of water which reduces friction between the stone and the ice. This allows the stone to travel further and straighter.

THE ICE: After the ice has been levelled as much as possible, fine water droplets are sprinkled over it (pebbling). The underside of the stone glides over these frozen pebbles.

DELIVERY: A rotation is applied to the handle of a stone just prior to release, which determines the direction the stone moves or "curls" as it slides down the ice. The turn applied makes the stone rotate in a clockwise or counter-clockwise direction. The 'skip' or team captain determines the shot to be played and indicates the shot while positioned in the house at the far end of the ice. The player delivering the stone pushes off from a fixed support ('hack') and aims at the skip's brush. The stone must be released before the near hog line and pass the far-end hog line to be in play. If a stone touches the side lines or passes the far-end back line it is removed from play. The other two team members follow the stone and are ready to sweep if necessary.

STRATEGY: Curling is often described as chess on ice. Basic strategy involves trying to score two or more points when your team has last stone, keeping the centre of the sheet open. Without last stone you try and control the centre of the sheet and hope to 'steal' a point.

SPIRIT OF CURLING: One of the most important aspects of Curling is sportsmanship. Games always begin and end with all players shaking hands, and fair play and proper etiquette, both on and off the ice, are strongly emphasized.

MEMBERS: As of September 2020 there are 66 Member Associations of the World Curling Federation (WCF).

MORE INFORMATION: The website of the WCF <https://www.worldcurling.org/> contains full details of the Rules of Curling and Rules of Competition.

16.2 HISTORY OF CURLING

Curling has been described as the 'Roarin' Game', with the 'roar' coming from the noise of a granite stone as it travels over the ice. The exact origins of the game, however, are unclear, but curling is widely believed to be one of the world's oldest team sports.

Paintings by a 16th century Flemish artist, Pieter Bruegel (1530-1569) portrayed an activity similar to curling being played on frozen ponds. The first written evidence appeared in Latin, when in 1540, John McQuhin, a notary in Paisley, Scotland, recorded in his protocol book a challenge between John Sclater, a monk in Paisley Abbey and Gavin Hamilton, a representative of the Abbot. The report indicated that Sclater threw a stone along the ice three times and asserted that he was ready for the agreed contest.

What is clear, however, is that what may have started as an enjoyable pastime of throwing stones over ice during a harsh Northern European winter, has evolved into a popular modern sport with its own world championships, which attract fans and large television audiences.

Curling in its early days was played on frozen lochs and ponds. When the weather permits, the game is still enjoyed outside in some countries, but all national and international competitive curling competitions now take place in indoor rinks with the condition and temperature of the ice carefully controlled.

The first recognised curling clubs were formed in Scotland, and during the 19th century the game was exported wherever Scots settled around the world in cold climates, most notably at that time in Canada, United States, Sweden, Switzerland, Norway and New Zealand.

The first Rules were drawn up in Scotland, and they were formally adopted as the “Rules in Curling” by the Grand Caledonian Curling Club, which was formed in Edinburgh in 1838 and became the sport’s governing body. Four years later, following a demonstration of curling on the ballroom floor of Scone Palace near Perth by the Earl of Mansfield during a visit by Queen Victoria, the Queen was so fascinated by the game that in 1843 she gave permission for the Club’s name to be changed to the Royal Caledonian Curling Club (RCCC). The name has been recently changed to Scottish Curling.

It is recorded that international curling events were staged in the 19th century in Europe and North America, but it was not until the first Olympic Winter Games in 1924, in Chamonix, France that any form of official international competition took place for men’s teams. Great Britain defeated Sweden and France in what was retroactively accepted in 2006 by the International Olympic Committee (IOC) as curling’s Olympic debut, with medals awarded.

In 1932 at Lake Placid, United States, curling again was listed but this time as a demonstration sport at the 1932 Olympic Winter Games. Canada was the winner over the United States in a two-country competition where each nation entered four men’s teams.

Another 25 years passed before a meeting was held in Edinburgh in 1957 to consider the formation of an international organisation which would be required in order to apply for Olympic medal status. No progress was documented, but two years later, in 1959, Scotland and Canada reached a major milestone by launching the Scotch Cup series between their national men's curling champions.

Interest in other countries was generated, and the United States (1961), Sweden (1962), Norway, Switzerland (both 1964), France (1966) and Germany (1967) expanded the Scotch Cup entry. The 1959-1967 results are now recognised in the curling history of the men's world championship.

The success of the Scotch Cup series led to another attempt, in March 1965, to create a global administration. The Royal Caledonian Curling Club (Scotland) convened a meeting in Perth, Scotland, and six countries – Scotland, Canada, United States, Sweden, Norway and Switzerland – agreed to a proposal to form an international committee of the Royal Club, to be called the International Curling Federation (ICF).

The following year, in March 1966, in Vancouver, Canada, a draft constitution for the ICF was considered by seven countries – France was added to the original six – and the Federation was declared to be established as of April 1, 1966. Though in attendance at these meetings, the United States opted to be there in an observational capacity only and therefore didn’t become a member of the ICF until 1967.

The constitution was approved in March 1967, at Perth, and a set of rules for international competition was proposed. At the Federation's annual meeting in 1968 in Pointe-Claire, Quebec, Canada, these rules were adopted, but are subject to amendment and revision each year.

Also, in 1968 the Air Canada Silver Broom replaced the Scotch Cup and it was sanctioned as the World Curling Championship. In 1975, the Federation endorsed the World Junior Men's Curling Championship; in 1979 the Ladies’ Curling Championship; and in 1988, the World Junior Ladies’ Curling Championship. The four events were combined into two in 1989 at Milwaukee, Wisconsin, United States and Markham, Ontario, Canada and

became known as the World Curling Championships (WCC) and the World Junior Curling Championships (WJCC).

The Constitution had a significant adjustment in 1982, when the Federation was declared an independent entity and approved as the governing body for curling in the world, while the Royal Caledonian Curling Club was acknowledged as the 'Mother Club of Curling'.

In 1990, the name of the Federation was changed to the World Curling Federation (WCF).

Curling was a demonstration sport for second and third times at the 1988 Olympic Winter Games (Calgary) and the 1992 Games (Albertville) for women's and men's teams.

On 21 July 1992, at its session in Barcelona, Spain, the International Olympic Committee granted official medal status to men's and women's curling, to take effect no later than the Olympic Winter Games of 2002, with an option for inclusion in 1998 at Nagano, Japan. During the meeting of the IOC Executive Board held between 22 and 23 June 1993, in Lausanne, the Organising Committee of the Nagano Olympic Winter Games (NAOC) officially agreed to include curling in the programme of the XVIII Olympic Winter Games in 1998. Eight teams for women and men participated in Nagano, and this was increased to ten from the Salt Lake City Olympic Winter Games of 2002 onwards.

At the Semi-Annual General Assembly of the Federation in Leukerbad, Switzerland, in December 1993, a revised Constitution was adopted. This included changes to the Management Structure. The revised structure became operational following the election of the Executive Board at the Annual General Assembly in Oberstdorf, Germany, in April 1994.

From 1966 to 1994, the administration of the ICF and WCF was the responsibility of employees of the RCCC. Following the adoption of the revised Constitution, the WCF set up its own Head Office and Secretariat in Edinburgh, Scotland in 1994. At the Semi-Annual General Assembly of the Federation in Grindelwald, Switzerland in December 1995, a completely re-written Constitution was adopted in order to comply with Swiss law following the Federation's registration in that country.

In May 2000, the WCF Secretariat moved from Edinburgh to Perth, Scotland.

Wheelchair curling was introduced during the 2000 World Handi Ski Championship in Crans Montana Switzerland. Switzerland and Sweden were the only countries competing. During a seminar on wheelchair curling held at that time, discussions on the format of the discipline took place and it was decided that the game should be played as close to the regular game as possible.

The following year the first International Wheelchair Curling Bonspiel took place in Sursee Switzerland. This proved to be a test event for the first World Wheelchair Curling Championship held in January 2002, with the home team winning the inaugural title.

In March 2002 the International Paralympic Committee granted official medal status to wheelchair curling for mixed gender teams. The organising committee of the Torino Paralympic Winter Games in 2006 agreed to include wheelchair curling in their programme.

Other international events introduced in 2002 included World Senior Championships for men and women. In 2003, curling was featured on the programmes of the World University Winter Games and the Asian Winter Games for the first time.

In 2005, the World Men's and Women's Championships were separated once again and held in different parts of the world. Also, that year, the European Youth Olympic Festival introduced a curling competition for junior men and women between 15 and 18 years of age. Curling also became part of the inaugural Youth Olympic Winter Games in Innsbruck, Austria in 2012.

The growth of the sport in Asia was recognised with the first World Women's Curling Championship being held in Aomori, Japan, in 2007 and the first World Men's Curling Championship to be held in Asia taking place in Beijing, China, in 2014.

In 2008, the first World Mixed Doubles Curling Championship was staged in Vierumäki, Finland. Mixed Doubles curling marks a break from traditional curling, as teams are comprised of two players – one male and one female. In 2015, the discipline was accepted as an additional event for the 2018 Olympic Winter Games, in PyeongChang, Korea – where eight teams competed for medals.

In 2015, the International Paralympic Committee (IPC) also confirmed that the wheelchair curling event in PyeongChang in 2018 would be expanded from 10 to 12 teams.

Also, in season 2014-2015, 'Curling: Pure Emotion', a sculpture by curler Bjorn Zryd was unveiled, by President Kate Caithness, at the Olympic Museum Park in Lausanne, Switzerland. This was the first Olympic Winter sport to have such an artefact at the museum.

In 2016, the WCF celebrated its 50th anniversary. That year a Sweeping Summit was arranged near Ottawa, Canada to address the rules of sweeping. This resulted in one of the sport's most significant set of rule changes to date, following a season that challenged the conventions of how stones should be swept and what types of fabrics should be used on brushes.

In 2018 the Curling World Cup had its debut as a new four leg series where women's, men's and mixed doubles teams competed for money while representing their Member Associations.

OLYMPIC WINTER GAMES

Curling made its debut as an Olympic Winter Sport at the first Winter Games in Chamonix, France, in 1924. At this event, Great Britain defeated Sweden and France in what was retroactively accepted in 2006 by the International Olympic Committee (IOC) and medals were awarded.

In 1932 at the Lake Placid Olympic Winter Games, curling again was listed but this time as a demonstration sport. Canada was a winner over the United States in a two-country competition in which each country entered four men's teams. Curling was a demonstration sport for a second and third time at the Olympic Winter Games of 1988 (Calgary) and 1992 (Albertville) for teams of men and women.

On 21 July 1992, at its session in Barcelona, Spain, the International Olympic Committee granted official medal status to women's and men's curling, to take effect no later than the Olympic Winter Games of 2002, with an option for 1998 at Nagano, Japan.

During the meeting of the IOC Executive Board held 22-23 June 1993, in Lausanne, the organising committee of the Nagano Olympic Winter Games (NAOC) officially agreed to include curling in the programme of the XVIII Olympic Winter Games in 1998. Eight teams for women and men participated in Nagano, this was increased to ten teams from the Salt Lake City Olympic Winter Games (2002) onwards.

Mixed Doubles was accepted as a third curling medal discipline by the IOC in 2015. Eight teams competed for Olympic medals for the first time in Mixed Doubles at the Olympic Winter Games PyeongChang 2018, in the Republic of Korea. PyeongChang 2018 was also the first time that the women's curling final took place on the final day of the Games.

PARALYMPIC WINTER GAMES

The first World Wheelchair Curling Championship was held in January 2002, and in March that year the International Paralympic Committee (IPC) granted official medal status to wheelchair curling for mixed gender teams.

The organising committee of the Turin 2006 Paralympic Winter Games agreed to include wheelchair curling in their programme. Wheelchair curling then made its second appearance at the Vancouver 2010 Paralympic Winter Games.

Eight teams participated in Turin. The number of teams competing in the Vancouver 2010 Paralympic Winter Games was increased to ten and in June 2015 the IPC confirmed that the wheelchair curling event at the PyeongChang 2018 Paralympic Winter Games would be expanded to 12 teams.

17 ANNEXES

17.1 ANNEX 1 – RESPONSIBILITIES BEFORE AND AT EVENT

Roles & Responsibilities of the Technical Delegate and International Technical Officials

June 2018

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TECHNICAL DELEGATE (TD)

The TD for each WCF competition is recommended by the WCF Head of Competitions and approved by the President and Secretary General. Their role is to be the voice of the WCF and ensure the competition is played within WCF rules, policies and procedures.

Any decision the TD makes in relation to the competition should be made after, or in consultation with, the appropriate International Technical Official(s).

Of course, it would be wise to consult with the Head of Competitions and the senior Board Member present, but the TD bears the responsibility of the final decision and has the authority to invoke it.

INTERNATIONAL TECHNICAL OFFICIAL (ITO)

ITOs are in a position of trust and responsibility. ITOs must be impartial with all participating teams. They may converse with athletes and coaches on a general level (i.e. non-specific information) and with the Head of Competitions on matters regarding rules and officiating.

Additional information / responsibilities for all ITO positions may be found in the WCF Technical Officials Manual.

CHIEF UMPIRE (CU)

- The CU is responsible to the TD. The CU is also responsible for the Deputy Chief Umpire (CU) and the Game Umpires (GU) including the on-ice volunteers. The CU is responsible to mentor the DCU to prepare the DCU to take over the CU duties and responsibilities as required

DEPUTY CHIEF UMPIRE (DCU)

- The DCU is responsible to the CU and should be prepared to replace the CU at any time during the competition. The DCU should support the CU with mentoring the GUs and support them to become better officials. Quite often the CU is too busy to fulfil this duty. Therefore, the DCU might have to take over this responsibility

GAME UMPIRE (GU)

- The GUs are responsible to the CU

CHIEF TIMER (CT)

- **The CT is responsible to the CU and TD.** The CT is also responsible for the Deputy Chief Timer (DCT) and timing volunteers. The CT is responsible to mentor and prepare the DCT to take over the CT duties and responsibilities as required

DEPUTY CHIEF TIMER (DCT)

- The DCT is responsible to the CT and should be prepared to replace the CT at any time during the competition

CHIEF STATISTICIAN (CS)

- The CS is responsible to the TD. The CS is also responsible for the Deputy Chief Statistician (DCS) and the Statistics volunteers. The CS is responsible to mentor and prepare the DCS to take over the CS duties and responsibilities as required
- The CS liaises between the Results Team and the CU to ensure the smooth running of the event
- The CS will supply information to the media (print and broadcast) to help them fulfil their duties

DEPUTY CHIEF STATISTICIAN (DCS)

- The DCS is responsible to the CS and should be prepared to replace the CS at any time during the competition

CHIEF ICE TECHNICIAN (CIT)

- The CIT is responsible to the TD. The CIT is also responsible for the Deputy Chief Ice Technician (DCIT) and the Ice Crew volunteers (ICV). The CIT is responsible to mentor and prepare the DCIT to take over the CIT duties and responsibilities as required

DEPUTY CHIEF ICE TECHNICIAN (DCIT)

- The DCIT is responsible to the CIT and should be prepared to replace the CIT at any time during the competition

VOLUNTEERS

GAME TIMERS (GT)

- The GTs are volunteer positions and are responsible to the CT

STATISTICIANS (STATS)

- The Statisticians are volunteer positions and are responsible to the CS

ICE CREW VOLUNTEERS (ICV)

- The ICVs are volunteer positions and are responsible to the CIT

COMMUNICATION PRIOR TO A COMPETITION

Prior to a competition, the TD is responsible to communicate with the ITOs in matters related to the competition.

The WCF Administrative staff will communicate with the ITOs for all administrative matters related to approval of transportation and travel claims, contracts, health forms and other administrative items that are required for the ITOs to prepare for an event.

The Chiefs of their respective ITOs will communicate in all matters related to the Game, Timing, Results, or Ice and will deal directly with their crews. It is the best interests of all concerned that the Chiefs copy the TD into any correspondence and brief the TD as required, with the exception of the locally appointed volunteers who will come under the direction of the Local Organising Committee (LOC) until the event starts.

COMMUNICATION DURING THE COMPETITION – THE DECISION PROCESS

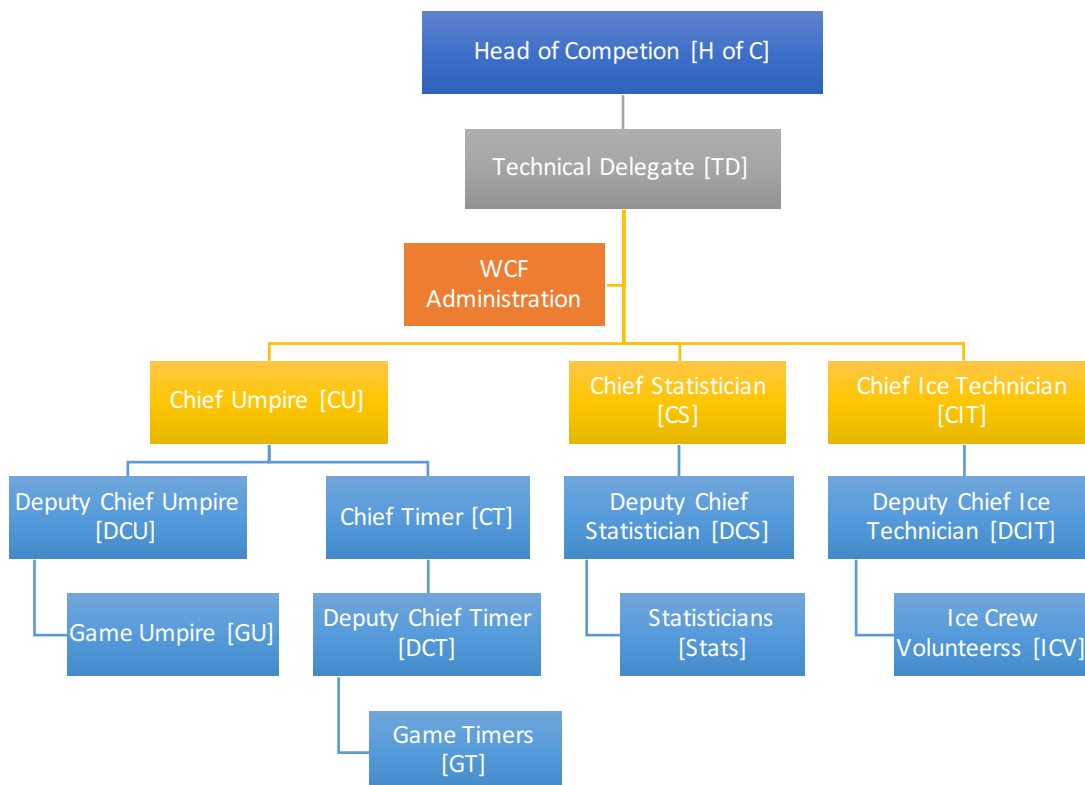
During the competition, the Chiefs are responsible for their respective areas and crews and to provide daily briefings and updates to the TD (including any situations that have occurred). This will ensure the lines of communication are open and help avoid any issues.

When the CU is required to make a decision on a game situation which cannot be resolved to the satisfaction of the teams involved, the CU will consult with the TD and other Chiefs (as applicable) and after referring back to the WCF Rules of Curling make a final decision.

The CU is expected to have good lines of communication with all the Chiefs to facilitate the decision-making process when required. In situations where there is a disagreement between the CU and another Chief, the TD should be consulted to help resolve the issue. In the event the TD is not available; the CU has the responsibility and therefore the final say. Any and all decisions made by any Chief are subject to review. The TD will also liaise with the ITOs to assist in the completion of their claims prior to the completion of the event.

Within 21 days following the completion of an event all Chiefs are required to submit their event reports to the HoC with the template, which can be provided by the TD.

COMPETITIONS ORGANIZATION CHART



17.2 ANNEX 2 – HAND OUT: ICE PLAYER ASSISTANTS (IPAs)

- Change shoes after arriving at the arena; wear clean shoes for on-ice duties (curling shoes or gym shoes)
- Dress warmly in clothes that allow free movement; wear gloves
- Have a micro-fibre cloth to clean stones
- Before the game but after the practice check what order they will deliver the stones. Do they have a left-handed player?
- Record delivery order on stone delivery card

DUTIES OF THE IPA: DELIVERING END

- Line up the stones in two neat rows in the correct playing order for each team
- Stones are lined up from the tee line forward, with all handles pointing straight up the ice (parallel to the centre line). The last stone to be delivered in the end is touching the tee line, with all other stones in order of delivery
- Team delivering first - place their stones closest to the centre at the side of the sheet
- Clean the stone at the side of the sheet, making sure not to bruise the ice with the striking edge of the stone. Use your foot to brace the stone when turning it over
- Clean the stone with a micro-fibre cloth (not with the hand) unless directed otherwise by a team
- Slide the stone to the area from which the player will deliver and place it near the front of the player's front wheel. If you have picked up some debris after the stone is cleaned take it back to side and re-clean it
- Move back to the side of the sheet behind the player, making sure you are quiet and still when he/she is getting ready to deliver
- Move to the playing end after the last stone is delivered and help to sort stones at the completion of the end. Follow the first delivered stone back to your assigned end

DUTIES OF THE IPA: PLAYING END

- Help players remove stones which have not crossed the hog line when asked
- Stop any stones that cross the back line and assist with out of play stones to clear the back line when asked by the delivering team
- Organise stones in the corner - two neat parallel lines with handles pointing straight up the ice (parallel to the centre line)
- Only after the score is decided and the go ahead is given to clear the house can the stones be moved from the back to the delivery position

Timing – 8 end games, 38 minutes of thinking time per team, extra end 6 minutes per team.

Pre-game practice is 9 min. for each team followed by their team's two Last Stone Draws (LSD - to determine last stone in the first end). Sometimes it will be necessary to change the position of Yellow and Red stones to match the team delivering the first stone of the game.

The last stone advantage is decided after the 2nd practice by comparing the LSD measures.

Each team has a one-minute time-out during the game and one additional time-out in each extra end. The team makes this call with a "T" hand signal to the Game Umpire. IPAs can help to get the attention of the Game Umpire. The Umpire will control the time-out.

IPAs must have the first stone of the game ready when the official announces "good luck and good curling".

Break between ends – normally 1 minute. The break will start when the end is completed and the score has been decided and the teams clear the stones from the house.

With 2 IPAs on each sheet: at the completion of an end both work together to move the stones to the delivery order in preparation for the next end.

The most important job is to make sure the **1st stone of each end is ready for the team, and they are not waiting for you to clean and place the stone.** The team who scored in the last end delivers the first stone in the next end. You can continue to sort stones after placing the first stone, but make sure after the start of play you do not distract the delivering player. Line up the stones so that the team that is delivering the 1st stone of the end has its stones closest to the centre line. The team delivering last stone of the end has its stones closest to the sideboard (delivery order cards match the line-up colour order).

Mid-game break – after 5 minutes the break time expires. IPAs must have the first stone in the delivery position after the ice has been cleaned and prior to the end of the 5-minute break.

IPAs have an opportunity for a short break after the 4th end but must watch the clock so they will be in position when the teams are ready to deliver.

End of an end – it is the teams' responsibility to remove the stones in the house area, but the IPAs will assist. When clearing stones from the house they should be moved to the side just in front of the tee-line.

If teams leave the house area without helping the IPAs, the IPAs should start by placing the stones from the back out of play area to the delivery position, and stones can be left in the house until teams assist the IPA. Make sure the 1st stone of the end is cleaned, ready and in position even if stones are still in the house waiting for removal.

DO NOT MOVE ANY STONES IN THE HOUSE IF A MEASURE HAS BEEN REQUESTED!

17.3 ANNEX 3 – HAND OUT: ICE PLAYER ASSISTANTS – IPAs WHEELCHAIR MIXED DOUBLES (IPA - WHMD)

GENERAL

- Do not engage in casual conversation with the competitors, other officials, spectators or coaches during the game
- If an incident occurs, do not intervene
- If you need to leave the ice during a game, advise the GU and wait for a replacement before leaving your position
- Notify the GU if the teams request a measurement or ruling
- Make sure not to distract players also on adjacent sheets

BEFORE THE GAME

- Change shoes after arriving at the arena; wear clean shoes for on-ice duties (curling shoes or gym shoes)
- Have a micro-fibre cloth to clean stones
- Dress warmly and in approved clothing – black trousers, clean and non-slippery shoes, jacket without hoodie, wear gloves
- Before the game but after the practice check with each team what order they will deliver the stones. Do they have left-handed player(s)?
- Record delivery order on stone delivery card
- GUs will inform you at the start of each game what the designated position is for the guard stone
- Place the stones not being used together away from the game stones close to back board

PLACEMENT OF STONES

- Use the designated stones, one of each colour for each end of the ice, each marked with a WCF logo handle cover. If there is a rotation of the designated stones (to keep the wear on the running edges the same), the markings on the stones will have to be changed to match the rotation order
- Clean the running surface of the two positioned stones with a micro-fibre cloth before moving them forward to their locations. Take care in tipping stones to clean. Always clean stones near the backboard
- The team delivering first has the guard stone, the team delivering second has the stone in the house
→ This might help you remember this: **Front – First** and **House - Hammer**

SECURING THE WHEELCHAIR

- Step behind the chair, secure wheels with your feet and hold tight the wheelchair bars until the delivered stone crossed the hog line
- Do not push the wheelchair forward
- Keep still and quiet during the whole delivery process
- Follow instructions of the player
- Call GU in case of incident or player's complaint.
- Do not argue with the player

DURING THE GAME – DELIVERY END

- Line up the stones in two neat rows in the correct playing order for each team
- Stones are lined up from the tee line forward, with all handles pointing straight up the ice (parallel to the centre line). The last stone to be delivered in the end is touching the tee line, with all other stones in order of delivery
- Team delivering first - place their stones closest to the centre at the side of the sheet

- Clean the stone at the side of the sheet, making sure not to bruise the ice with the striking edge of the stone. Use your foot to brace the stone when turning it over
- Clean the stone with a micro-fibre cloth (not with the hand) unless directed otherwise by a team
- Slide the stone to the area from which the player will deliver and place it near the front of the player's front wheel. If you have picked up some debris after the stone is cleaned take it back to side and re-clean it
- Move back to the side of the sheet behind the player, making sure you are quiet and still when he/she is getting ready to deliver
- Secure the chair of the delivering player if asked to do so.
- After the last stone of an end has been delivered, start positioning the stationary stones for a following end before moving to the other end to help with arranging the stones

DURING THE GAME – PLAYING END

- Place the stationary stones. When possible to ensure the stones are placed in time (break between ends).
- Power Play: Once per game, each team, when it has the decision on the placement of the “positioned” stones, can use the “Power Play” option to position those two stones to the side of the sheet instead of the designated centre positions. The in-house stone (B), which belongs to the team with last stone in that end, is placed on either side of the house with the back edge of the stone touching the tee line, at the point where the 8-foot and 12-foot circles meet. The guard stone (A) is positioned to the same side of the sheet, the same distance that was determined for the centre guards (see Figure No. 2). The “Power Play” option cannot be used in extra ends.
- Stand to the side of the sheet (out of the delivering player's sight line), near the corner where the out-of-play stones will be collected
- Assist players in clearing any stones that are not in play (stones that have not crossed the hog line, or have touched a side line or cleared the back line)
- Place out-of-play stones in two rows parallel to the side boards and with the handles pointing straight up the ice, parallel to the centre line (keep them in the delivery order if possible)
- If a take-out shot is being played, move forward in anticipation of stones possibly going towards an adjacent sheet
- After the score for the end has been agreed between the teams and it has been communicated to the GU, both IPAs can move the stones up to the delivery position on the right side of the sheet for the next end
- If a measure is required, don't move any stones
- Arrange the stones in correct order for the next end
- Offer assistance only when requested
- **DO NOT MOVE ANY STONES IN THE HOUSE IF A MEASURE HAS BEEN REQUESTED!**

Timing Wheelchair Mixed Doubles – 8 end games, 30 minutes of thinking time per team. Extra end thinking time of 4 minutes 30 seconds.

Pre-game practice is 9 min. for each team followed by their team's two Last Stone Draws (LSD - to determine last stone in the first end). Sometimes it will be necessary to change the position of Yellow and Red to match the team delivering the first stone of the game.

The last stone advantage is decided after the 2nd practice by comparing the LSD measures.

Each team has a one-minute time-out during the game and one additional time-out in each extra end. The team makes this call with a "T" hand signal to the Game Umpire. IPAs can help to get the attention of the Game Umpire. The Umpire will control the time-out.

IPAs must have the first stone of the game ready when the official announces "good luck and good curling".

Break between ends – normally 1 minute. The break will start when the end is completed and the score has been decided and the teams clear the stones from the house.

With 2 IPAs on each sheet: at the completion of an end both work together to move the stones to the delivery order in preparation for the next end.

The most important job is to make sure the **1st stone of each end is ready for the team, and they are not waiting for you to clean and place the stone.** The team who scored in the last end delivers the first stone in the next end. You can continue to sort stones after placing the first stone, but make sure after the start of play you do not distract the delivering player. Line up the stones so that the team that is delivering the 1st stone of the end has its stones closest to the centre line. The team delivering last stone of the end has its stones closest to the sideboard (delivery order cards match the line-up colour order).

Mid-game break – after 5 minutes the break time expires. IPAs must have the first stone in the delivery position after the ice has been cleaned and prior to the end of the 5-minute break.

IPAs have an opportunity for a short break after the 4th end but must watch the clock so they will be in position when the team is ready to deliver.

End of an end – it is the teams' responsibility to remove the stones in the house area, but the IPAs will assist. When clearing stones from the house they should be moved to the side just in front of the tee-line.

If teams leave the house area without helping the IPAs, the IPAs should start by placing the stones from the back out of play area to the delivery position, and stones can be left in the house until teams assist the IPA.

Make sure the 1st stone of the end is cleaned, ready and in position even if stones are still in the house waiting for removal.

Out-of-play stones are placed in two neat parallel rows, handles pointing straight up the ice.

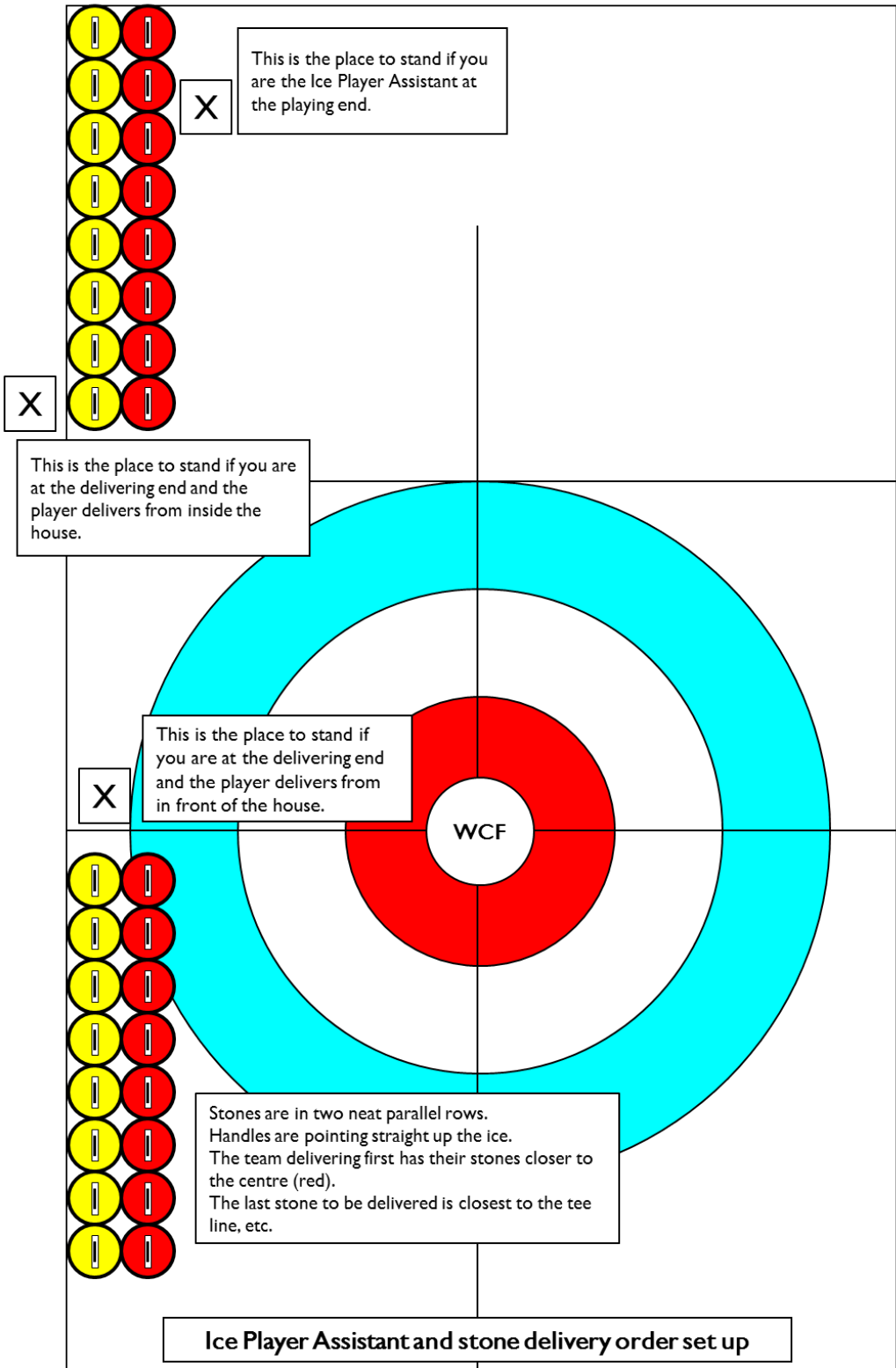


Figure No. 1 - Centre Guard

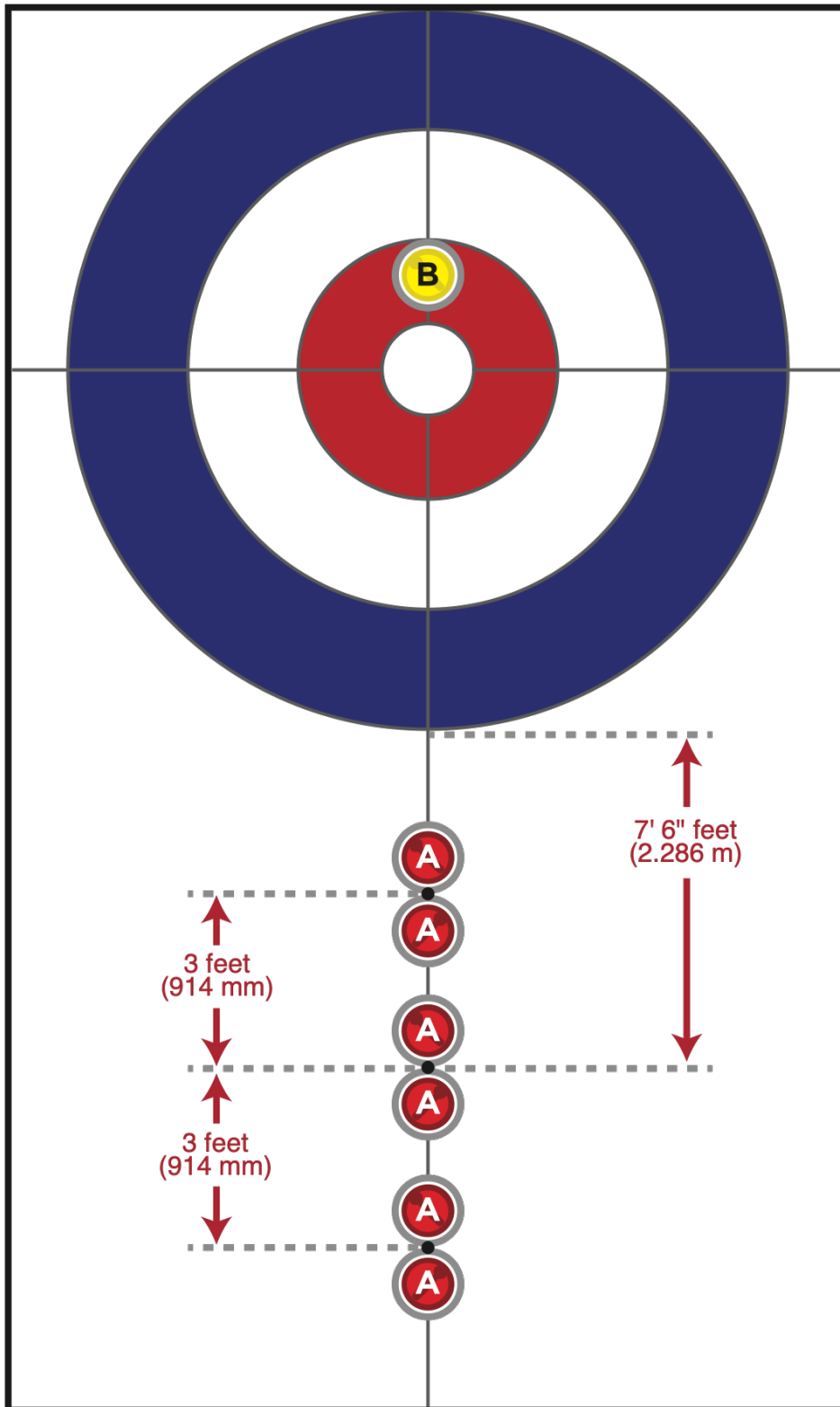
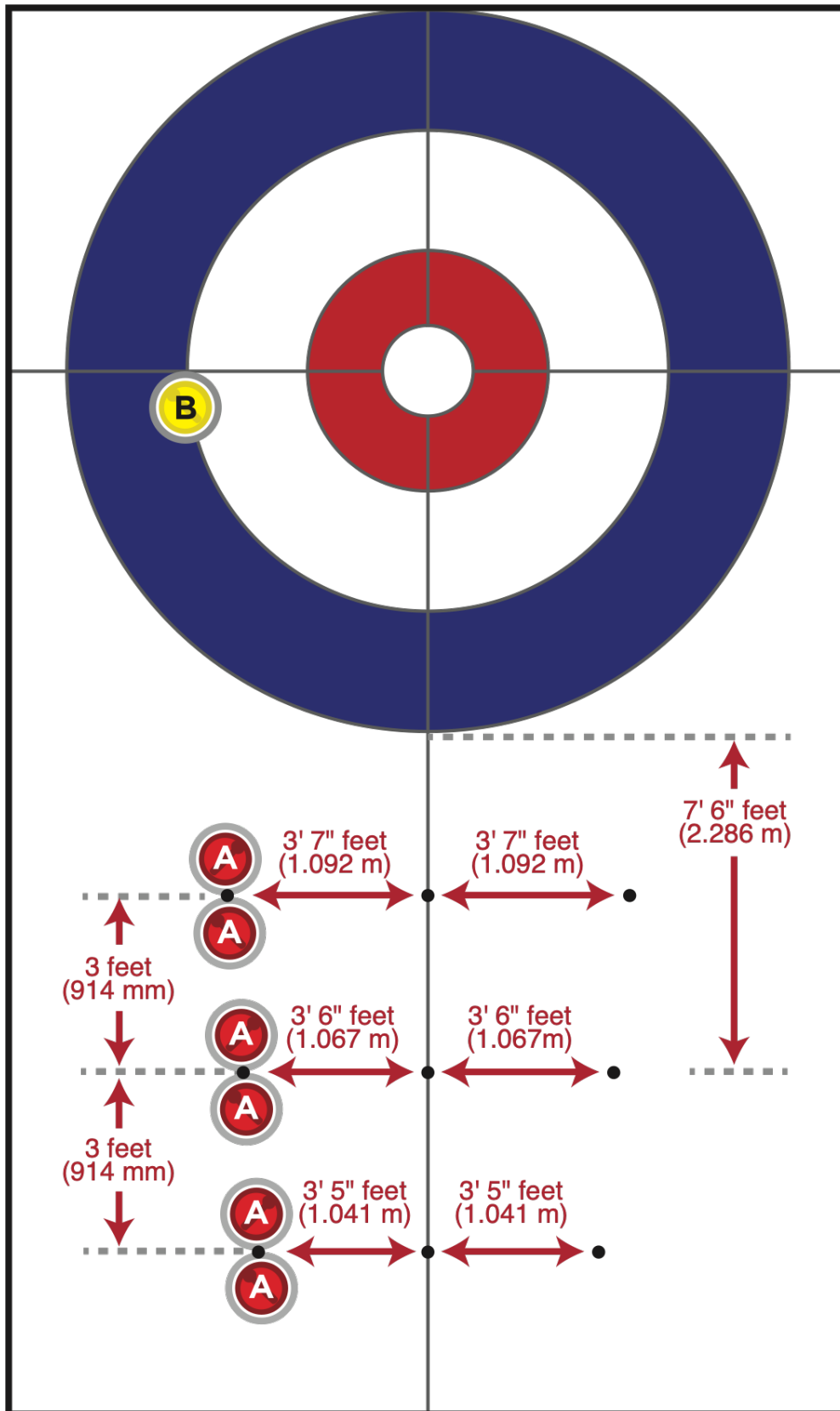


Figure No. 2 - Power Play Option



17.4 ANNEX 4 – CT EQUIPMENT & INSTALLATION INFO

EQUIPMENT MIGHT HAVE TO BE MOVED

The CT should be familiar with all aspects of the operation of the equipment being used.

If the *CurITime* computer-based program is being used, the following equipment should be provided for each sheet of ice:

- 1 x **Laptop** computer – with 2Gb RAM, running Windows 7 or 10; with an HDMI port
- 1 x USB Mouse
- 1 x Flat Screen **Display** (Minimum 32" -80cm) TV with HDMI port
- 1 x High Quality **HDMI cable** to connect the laptop to the display (max length 15 meters (50ft) if using a passive HDMI or 30 meters (100 ft) if using Active Optical HDMI). Signal extenders may be used if longer runs are required

Laptop

Check each laptop for the following:

- Most recent version of *CurITime* is installed (www.curltime.com)
- Computer is plugged in and NOT running on battery power
- WIFI is turned off
- The touch-pad is disabled and the mouse is working
- The display output is set to extended desktop for an additional screen. (*CurITime* will attempt to detect the secondary external monitor, but occasionally, you may have to set the extended desktop manually)

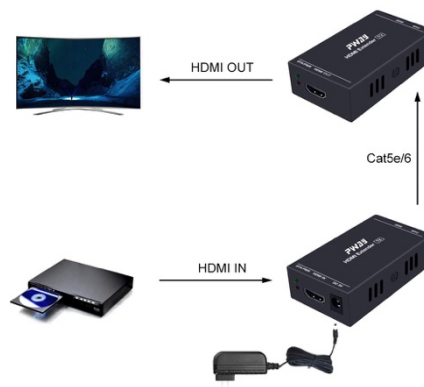
If the laptop has been provided by the OC (rather than the WCF), then any other background operation which could interfere with the uninterrupted running of *CurITime* should be switched off, including: auto-update pop-ups, scheduled virus scans, screen savers and power-saving. An extra laptop should be available as a spare.

Display

This should be a wide screen display with a resolution of at least 1024 x 768 for optimum viewing. The display should be securely situated where players, coaches and Umpires from both ends of the ice, can see it.

HDMI Cable

For technical reasons, the max length should not exceed 15 meters (50 ft) if using a **Passive HDMI** cables or 30 meters (100 ft) if using **Active Optical HDMI** cables. Signals will degrade as the cable length increases, so it's important to use high quality cable. Signal extenders may be used if longer runs are required. Example of extender setup.



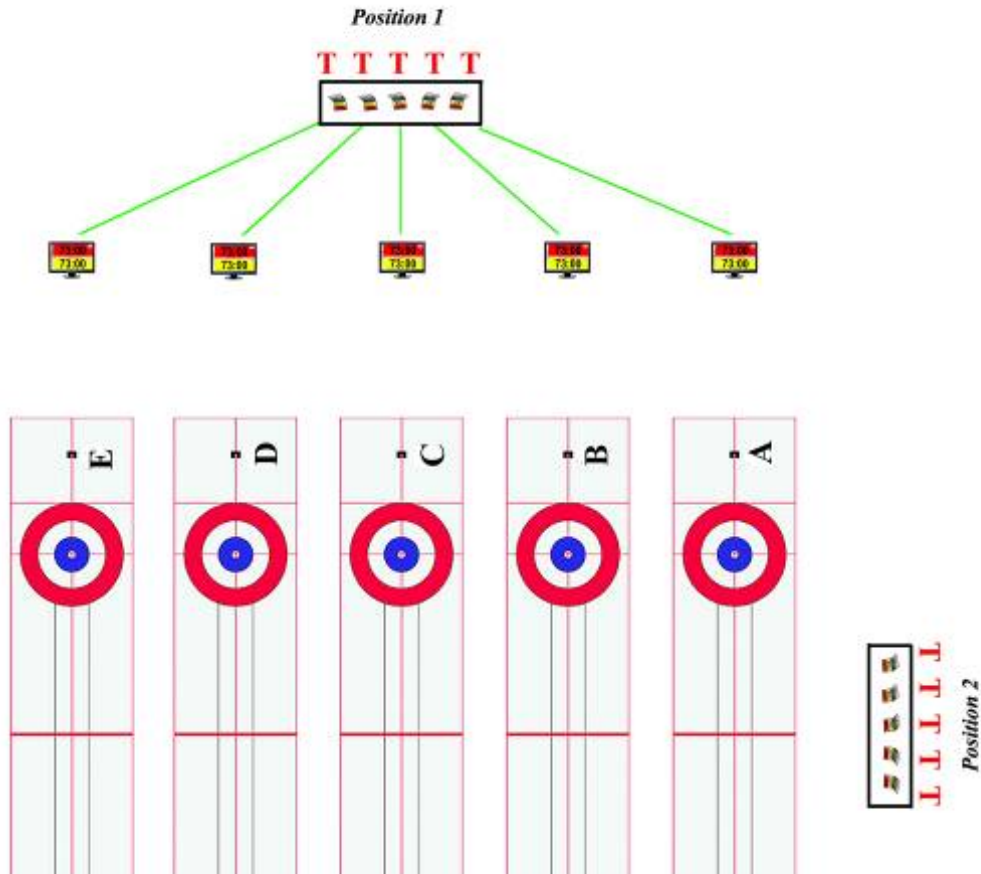
Only one power adapter is needed

LAYOUT

In the diagram below, the ideal layout is **Position 1**.

The following cables would be required: 2 x 25m; 2 x 20m; 1 x 6m

If **Position 2** has to be used, then the cables required would be: 2 x 40m; 3 x 30m



Where a CT is used, only the CT will have a radio, so all timers should sit together.

Each timing station should be labelled 'A', 'B', 'C', 'D', 'E' to correspond with the sheets being timed.

The area round the timing bench should be checked for safety hazards, especially if the bench is situated on a temporary structure.

The CT should ensure each timer is provided with a chair, clipboard, pencil and stopwatch. The CT should have two stopwatches, a notebook and pencil.

There should be easy access to rubbish disposal, toilet and hot-drink facilities, and changing facilities should be available.

17.5 ANNEX 5 – HAND OUT: GAME TIMERS

BEFORE THE GAME

- Arrive at least 40 minutes before the start of the game

PRE-GAME PRACTICE

- The time clock operator on sheet *<insert sheet here>* will operate the pre-game practice
- Start the 9:00 minute practice time on the announcement “First practice may begin”
- Start the 1:00 minute LSD time on the announcement “Please deliver your clockwise Last Stone Draw”
- Start the 1:00 minute LSD time on the announcement “Please deliver your counter-clockwise Last Stone Draw”
- Start the 9:00 minute practice time on the announcement “Second practice may begin”
- Start the 1:00 minute LSD time on the announcement “Please deliver your clockwise Last Stone Draw”
- Start the 1:00 minute LSD time on the announcement “Please deliver your counter-clockwise Last Stone Draw”
- For all other timers: after the last LSD measurements are done, remove the WCF logo from your screen

START OF THE GAME

- Start the 1:00 minute break time on the cue of the Chief Timer (CT). The clocks on all sheets are started at the same time

FIRST STONE OF AN END

- Make sure you know who starts:
 - the first end: the team that does not have the LSFE (check the scoreboard)
 - the team that won the previous end
 - in case of a blank end, the same team will start again (except for Mixed Doubles)
- Start the time of the team that plays the first stone if the player is not ready in the hack to deliver his first stone ("soft start")
- Stop the time again (if running) as soon as the stone crosses the T-line

ALL OTHER STONES

- Start time of the next team when...
 1. all stones came to rest or behind back line
 2. any displaced stones because of violations are placed in their original position
 3. playing area is cleared: skip behind backline, sweepers and deliverer to the sides
- Stop time when the next stone crosses the T-line
- If a team took a more than 1:00 minute thinking time for a stone, write this down on the timing form

LAST STONE OF AN END

- For all ends except for the last end, the break time is started as soon as all the stones that were in the house have been moved, e.g. – including the completion of any measure
- Write down the remaining times on the timing-form

EXTRA END

- Write down the remaining times for both teams before resetting the clocks for the extra end
- Reset the clocks to the times for an extra end
- Start the 1:00 minute break

TIME-OUTS REQUESTED BY A TEAM

- Team will make a “T” sign towards Timer or Umpire
- Start the correct travel time immediately (different times for home and away end)
- Let the CT know you have a team time-out
- After the time-out, restart the clock of the team that called the time-out
- Mark the time-out on the timing-form

TECHNICAL TIMEOUT

- Whenever an Umpire steps into the game, or when the team makes an “X” sign towards Timer or Umpire, immediately stop the clock and let the CT know
- Start the clock when the CT tells you

LOW ON TIME

- Inform the CT when a team has less than 2:00 minutes on the clock

TIMING ERRORS

- Timing errors occur and can always be corrected. If you see something irregular, or if you think you made a mistake, immediately let the CT know what happened. The CT will make sure the proper correction is applied

EQUIPMENT OPERATION

Make sure you are familiar of the following operations on the timing equipment:

- how to do pre-game practice and LSD timing
- how to start game timing
- how to start and stop the clocks
- how to start between-end and mid-game break clocks
- how to start team time-outs (think about the difference for home and away end)
- how to reset the clocks to the times of an extra end

SHIFTS & DUTIES

- Make sure you know your shift times
- If you are scheduled: be in the building 40 minutes before the start of the game and report to the CT that you are present. Be at your timer position 10 minutes before the game (timer of the pre-game practice clock: 40 minutes)
- Let the volunteer coordinator or CT know at least 4 hours in advance if you cannot be there
- Always first talk to the CT before exchanging shifts with somebody else

CODE OF CONDUCT

- Dress warmly
- No alcohol 6 hours before duty
- Concentrate on your own game
- Do not use any mobile phones on the timing bench
- No casual conversation during the game; do not distract other timers
- Conform to dress code - usually the jackets provided by the Organising Committee
- Use social media with care (no details about any games)
- Maintain confidentiality at all times

17.6 ANNEX 6 – CT EQUIPMENT

Depending on the location and situation, different timing systems can be used at a competition. Typically, the timing equipment consists of laptop computers running *CurlTime*-software, connected to flat screen TV displays for displaying the time clocks for players and coaches. This chapter focuses on the setup with *CurlTime*. In case any other equipment will be used, it will be the responsibility of the CT together with the OC to verify if the system can perform all necessary operations for the competition.

EQUIPMENT

For each sheet of ice, the following equipment is needed:

- 1 x laptop computer that meets the requirements of the used timing-software
- 1 x mouse
- 1 x flat screen TV, screen diameter minimum 32" or 80 cm
- 1x necessary cables to connect the laptop computers to the TV display

Additionally, one spare laptop should be available as backup.

Laptop

Check each laptop (including the spare) for the following:

- The most recent version of *CurlTime* is installed (the latest one published on the website www.curltime.com)
- Connect laptop power supply to main electrical source. DO NOT use battery power only.
- WIFI is switched off
- The touch-pad is disabled, the mouse is working
- Screen savers are disabled, power saving mode is switched off
- Any additional software running on the background (especially virus software) that could cause pop-ups or cause a scheduled scan, is disabled
- The display output is set for an additional screen

Display

Check for each TV-display the following:

- Display should be visible by players and coaches from all positions on the ice and coach bench
- Clear indication to which sheet the time display belongs (signs "A", "B", etc.)
- Any auto-power-off settings or "showroom modes" of the TV should be disabled

Cable

Cabling between laptop and TV-display will typically be either **VGA** or **HDMI**. It is important that both the laptop and the TV-display are suitable for the used cables. Note that there are length restrictions to both VGA and HDMI cables. When cables need to be longer than possible for the cable type, so called "extenders" need to be used. Tip: when HDMI is used, check if the laptop and TV-display have the proper HDMI-connector size for the used cable: standard (type A), mini (type C) or micro (type D).

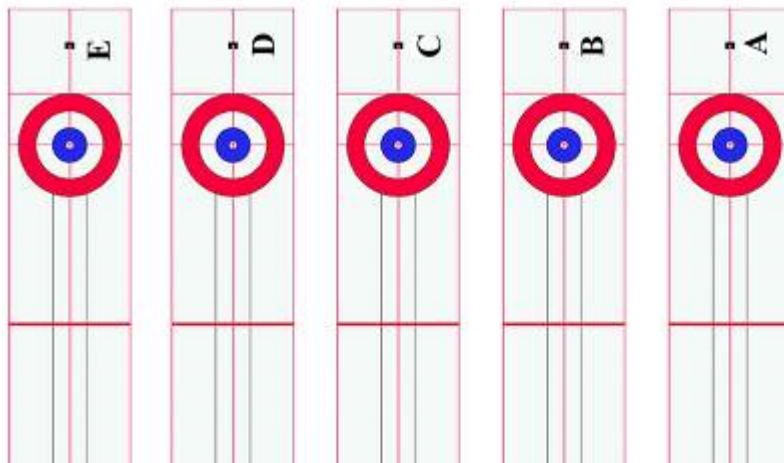
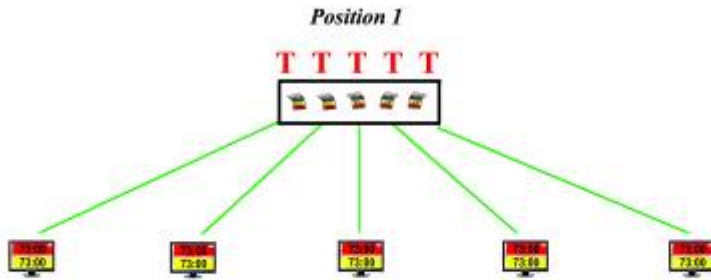
LAYOUT

The ideal layout is position 1 in the diagram below. The following cables would be required:

- 2 x 25 meter (82 ft)
- 2 x 20 meter (66 ft)
- 1 x 6 meter (20 ft)

If position 2 is used, the cables required would be:

- 2 x 40 meter (130 ft)
- 3 x 30 meter (100 ft)



It is recommended to already communicate before the competition with the OC about the location of timers and TV-screens, so the OC can make a proper assessment of the required cable lengths.

TIPS

- Mark the keyboard keys used for 'start/stop', 'timeout', '1-minute break' and '5-minute break' with **coloured sticker-dots on the keyboard**, for example a red sticker for 'start/stop red' ('Q') and a yellow sticker for 'start/stop yellow' ('Z'). This way it is easy for the time clock operator to quickly find the correct keys
- Before the competition, **test the spare laptop in combination with all TV-displays**, to avoid unpleasant surprises when exchanging laptops during a game in case of a malfunction. Even if all TV-displays are of the same brand and type, *Microsoft Windows* is known to save external display settings for each TV-display separately (based on serial number!)
- Change the **backlight setting for battery power to the lowest setting**. This way it will become immediately apparent when the mains power is lost on a laptop

LSD MEASUREMENTS

USING A 'BOSCH' LASER MEASURE AND THE '*CURL DISTANCE*' APP

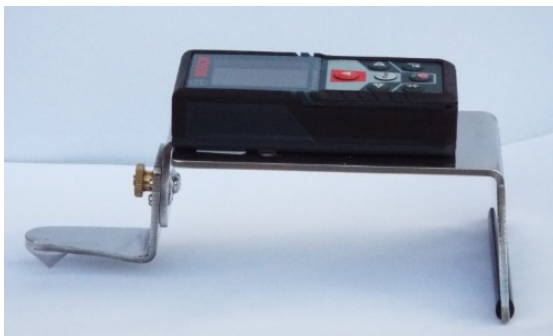
CAUTION: The procedures described are specific to this make of device and may need to be modified for other makes of laser measures and base plates.

Assembling the Laser Measure Device

1. Ensure the measure has two fresh 'AA' batteries
2. Screw small piece with centre pin to main base as shown
3. Make sure laser is facing towards centre pin!
4. Screw Laser device onto base in hole marked (right hand front hole): do not over-tighten



5. The measure is now assembled and should appear as in the photographs below:



Setting Up the Laser Measuring Device

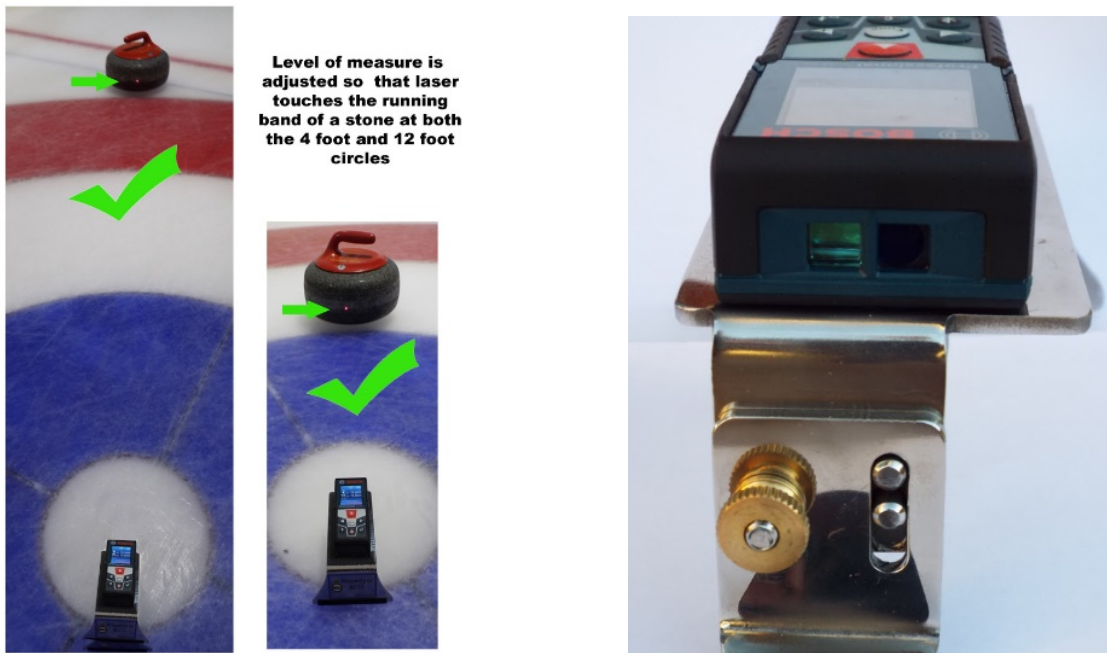
The following steps should be carried out as part of the pre-competition check:

- Check that the three required holes in the ice have been drilled correctly in each house at the home end
- The broad conical locator pin of the measure should be held in a warm hand for a few moments, then placed in turn into each hole and rotated gently through 360 degrees, so that it beds gently into the drilled hole and will locate the measure securely whilst measuring

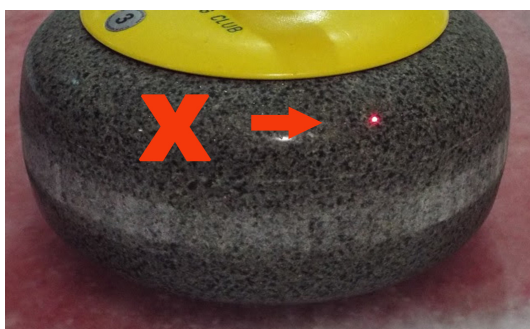
Like all LSD measuring devices, the Laser Measure should be chilled before measuring.

The Laser measure should now be checked that the laser beam hits the striking band of a stone placed at the edge of the 4 foot and 12 foot circles, when the measure is located in the centre pin-hole.

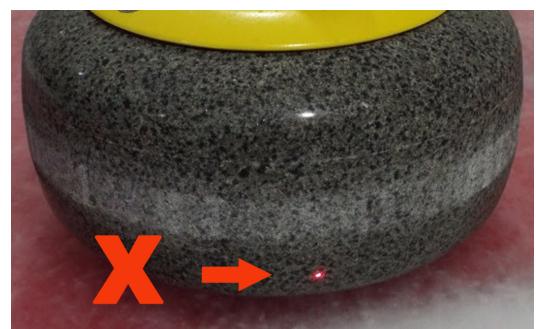
1. Press the on/off button (lower centre one) to switch on the measure
2. Place the measure in the centre pin-hole, and press the large red button to activate the laser beam
3. Direct the beam to middle of the striking band of a stone placed at edge of house. If necessary, adjust height of front plate to maintain this level. Check the stone at the edge of the four foot circle. If correct, no further adjustment is necessary



If the laser beam is still too high on the stone at either of those points, discuss with the ice technician lowering/widening the drilled centre measuring hole so the measure sits lower on the ice.



MEASURE TOO HIGH



MEASURE TOO LOW

4. The button arrowed (bottom right) determines which of the three points (front/centre/back) on the laser device the measurement is taken from. When switching on the measure, the default position is measuring from the back, and this is the position which **MUST** be used. This eliminates a possible source of error by forgetting to set to the appropriate position when switched on before starting to measure
5. Pressing the Function or large red (top) button displays the working screen



The laser is now ready for use.

Guide to the Laser Measuring Device



To Measure an LSD with the Laser Measure

1. Put laser measure in relevant drilled hole, then switch on. Press the large red button so screen goes from all white to active mode



All White



Active

- The screen should show a flashing red arrow between two green bars
|----->|.

This indicates that the measure is functioning in the default setting of 'Real Time' which means both minimum and maximum readings will be shown i.e. what is required



- Scan the beam across the striking band of the stone (once or twice is sufficient) at a slow but steady speed
- Press red button again and screen will turn white "fixing your readings"

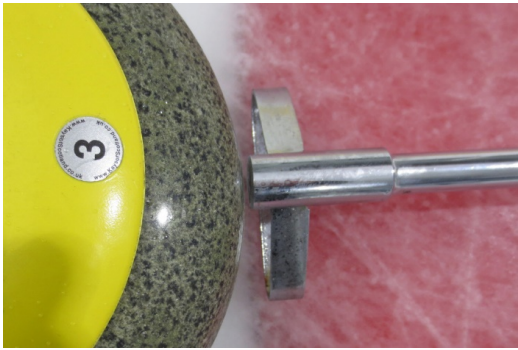
- Take **MINIMUM** (top) reading and that is the LSD measurement to enter into the Curl Distance App. **The other two figures should be ignored.** The measurement should be rounded down to the first decimal point (e.g. if 163.65cm then round down to 163.6 cm.)



- To measure the next stone, or if doing a 2 point measurement for a stone covering the centre pin, press the lower 'C' button briefly, thereby resetting all measurement values on the screen to zero and follow the same procedure as steps 1-4 above
- Once all measures have been completed, then press/hold down the lower centre button to switch the device off

Specific Situations and Warnings

Stone close to edge of house: If any doubt a biter measure should first be used. If not biting then no measurement is required and a “maximum” should be recorded.



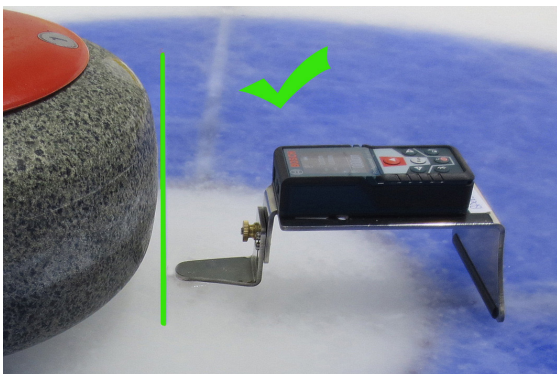
Two point measurement:

for stones covering the centre pin OR very close (within 1cm) of it.

The laser requires to be 5.0cm from its object i.e. the curling stone to perform an accurate measurement. The following photographs illustrate the correct and incorrect use of the device.

Due to the shape of a curling stone, it is possible to get the measure “underneath” the stone, but this should NEVER be done, otherwise it will result in an inaccurate calculation by the Curl Distance app.

CORRECT



WRONG

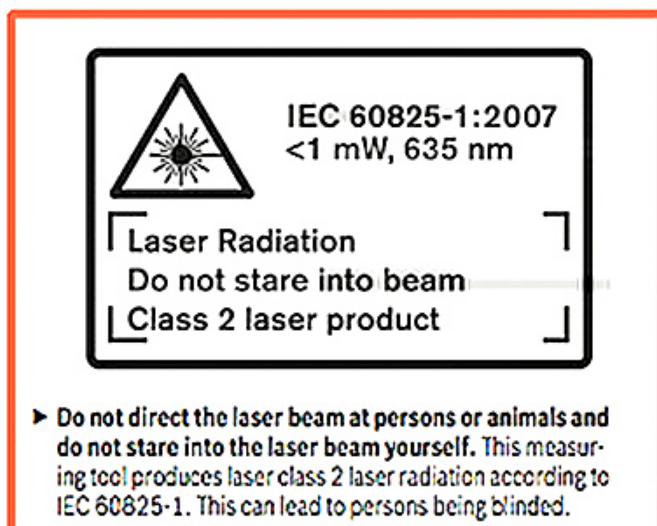


Other Potential Sources of Error

1. Switching the laser beam on to the active reading mode or forgetting to switch off the beam from a previous measurement, **BEFORE** putting the device in a locator hole, will result in a short and wrong minimum reading if the laser is not zeroed first. Therefore, always double check the measure reads zero before taking a reading



REMEMBER



WARNING
Laser Beams are potentially harmful

GUIDE FOR LSD MEASUREMENT RESULTS

Before measuring an LSD stone it is helpful to have an approximate range of expected results in your own mind as you go on to the sheet. This means when the **Curl Distance result** appears on the screen of the tablet (**NOT** the measuring instrument) you have something to mentally check against **before** moving the stone, which can be re-measured if it is not in the expected range.

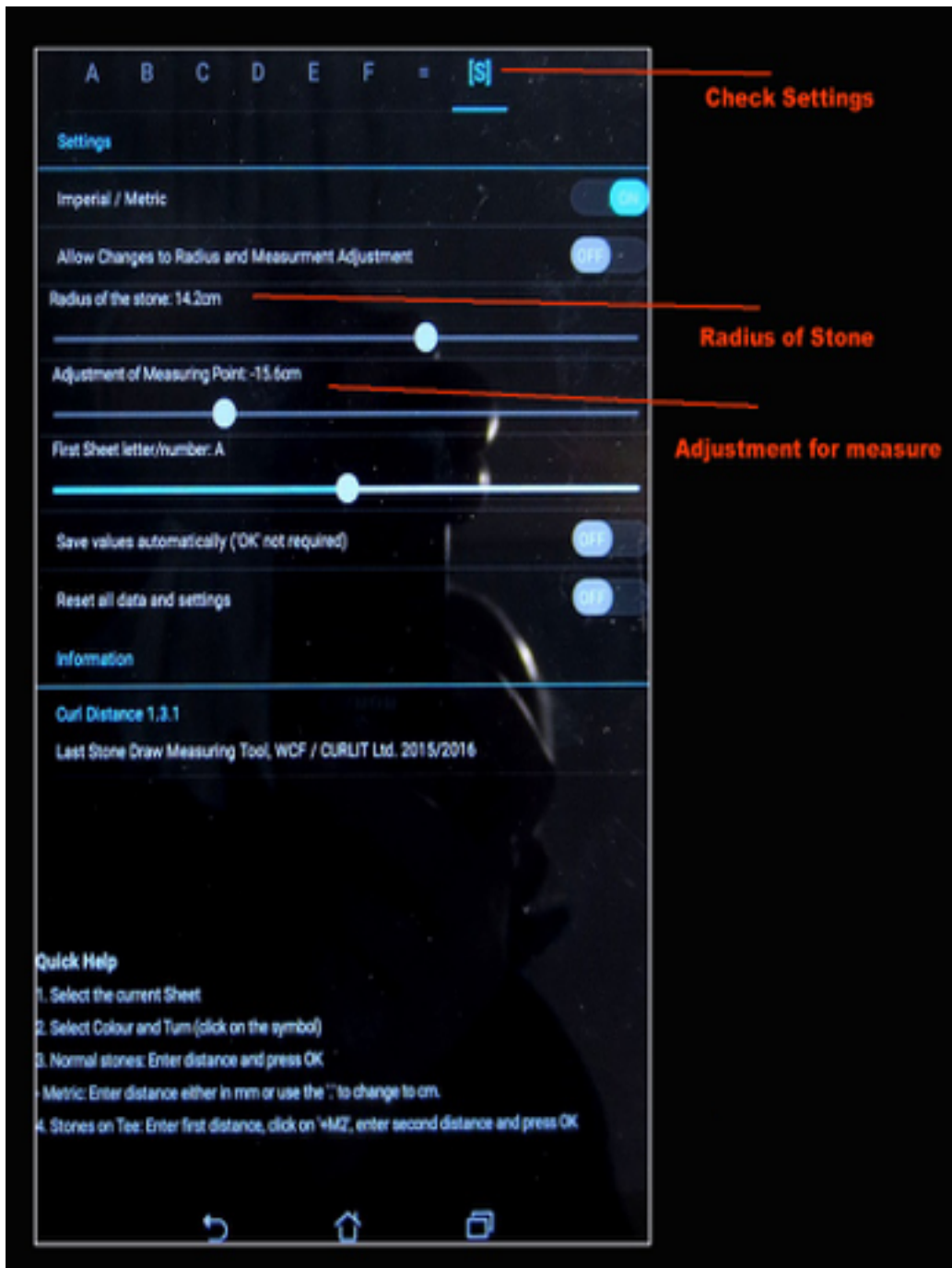
The following ranges are worth committing to memory as a guide.

- Stone covering centre pin → less than **14.2cm**
- Stone not covering centre pin but biting the inner 2 foot diameter circle or better → between **14.2cm – 44.0cm***
- Stone biting the 4 foot diameter circle or better → less than **75cm**
- Stone biting the 8 foot diameter circle or better → less than **136cm**
- Stone biting the 12 foot diameter circle or better → less than **197cm**

**Sometimes if no 'centre logo' in rings this may be smaller than 2 foot diameter circle which will reduce this figure e.g. WJCC 2017 = 37cm*

Preparing the Curl Distance App on the Tablet

The settings shown should **ONLY** be used when working with this laser measure.
An adjustment is required if a tape or other type of laser device is used.



Curl Distance App used with permission of 'Curlit' and World Curling Federation

17.8 ANNEX 8 – ICE TECHNICIAN AGREEMENT

Ice Technician Agreement

Role of the Ice Technician:

- An Ice Technician must be professional and dedicated to providing and maintaining optimum ice conditions in order to allow the sport to be played to the highest level
- The Ice Technician must have a sound knowledge of the game and treat all those involved with the competition with courtesy and respect
- The Ice Technician must commit to the competition the required number of working hours to ensure that ice conditions are optimal. All draws must be able to start on time
- **The Ice Technician must participate in pre-event conference calls when required**
- It must be remembered that a competition may be judged by the quality of the ice conditions. To that end the Ice Technician is a vitally important person in any competition and as such it is their responsibility to ensure that the best ice conditions are provided for the athletes at all times throughout the competition

Code of Conduct for Ice Technicians:

Ice Technicians are in a position of trust and responsibility and as such the following code of ethics should be followed:

- An Ice Technician must be impartial in respect of all participating competitors, but they should be prepared to converse with athletes and coaches on a general level (i.e. non-specific information). The Ice Technician can give more detailed information about the ice conditions to the Chief Umpire and the WCF Stone and Technical Controller (WCF STC, currently Richard Harding, Eeva Röthlisberger or WCF Technical Delegate)
- The Chief Ice Technician should be the only person to answer media questions about ice conditions. Remember that there is no such thing as an “off the record” comment, so be careful what is said
- A good working relationship between the athletes, coaches, other officials, media and site personnel is expected. Respect everyone’s job assignment, roles and duties
- Never put yourself in a position, real or perceived, of being partial in any situation
- Never become involved in any betting in a competition where you are working as an Ice Technician
- Consumption of alcoholic beverages during a competition should be done in moderation. Alcoholic beverages may not be consumed during a game being worked by an Ice Technician. The WCF Head of Competitions / Technical Delegate may suspend any Ice Technician for violating basic common sense with alcohol, or other items in the code of conduct
- Comments about any aspect of ice making and the competition should only be discussed amongst the Ice Technicians – not in the presence of other people or media
- The WCF will set the on-ice dress code for all Ice Technicians. An Ice Technician should wear appropriate attire at all Event functions (i.e. – no blue jeans). The Field of Play clothing shall be black pants and a special jacket (supplied by the local Organising Committee or the WCF). Whenever

possible, the Chief Ice Technician's jacket should be marked with Chief Ice Technician and similar for the Deputy Chief Ice Technician. Outside the curling facility (public places) the official clothing should not be worn, unless it is to go directly from the venue to the place of residence

A neat and clean personal appearance and proper conduct is essential at all times.

- An Ice Technician should ensure that they have had enough rest so that their mind is fresh and alert. In order to present the best impression during games, Ice Technicians should be seated or standing, not leaning against the boards. Ice Technicians should not be in the Field of Play without reason during games (i.e. - should not be in the Field of Play taking pictures)
- Ice Technicians should uphold the principles of the ice making system and the philosophies of the WCF at all times, but maintain a degree of flexibility to avoid confrontation with the Organising Committee, teams, WCF Executive Board and the media
- Ice Technicians should never become more than casually involved socially with any specific team or athlete during the competition. There should be full disclosure to the WCF if there is a personal or business relationship with an athlete or coach. It is acceptable to speak with and be around teams socially, but Ice Technicians should be careful not to be found in a position of spending an excessive amount of time with one team or player
- During the competition, the Chief Ice Technician and crew should be at the venue in enough time to prepare the ice for every game and practice. The ice crew must follow the Chief Ice Technician's work schedule. In the absence of the Chief Ice Technician, the Deputy Chief Ice Technician will be in charge and assume the duties of the Chief Ice Technician
- The Chief Ice Technician is responsible for the WCF Ice Technician Equipment Boxes. An inspection of the boxes must be completed prior to the start of every competition. It is essential that any issues with the box i.e. not properly packed, or there are missing items, this must be reported **to the WCF TD immediately**

At the conclusion of the competition, the boxes must be properly packed and ready for shipment. The equipment boxes will be inspected by the WCF on their return and the cost of any missing items will be deducted from the Chief Ice Technician's honorarium. The WCF will supply documents that list the contents of each box and details on how to correctly pack the equipment and stone boxes. Stones need to be placed in the correctly marked box for that pair of stones.
- The Chief Ice Technician must submit a report to the WCF Head of Competitions within 3 weeks of the conclusion of the competition
- Disciplinary action for an Ice Technician will be determined and administered by the WCF Discipline Committee (minimum of three persons: WCF President or Vice President; one Executive Board Member or Secretary General; and the WCF Head of Competitions or WCF Technical Delegate). Ice Technicians who do not follow the code of conduct and the agreement stated below may not be considered for future WCF competitions

WCF's Definition of Competition Ice:

The ice should have a movement and speed that gives advantage to the player's skill and also gives the guarantee of an interesting game.

The WCF requests the following Ice Conditions:

Curl between 4 and 5 feet (no more, no less) and with aggressive movement without "dive" at the end.

The speed should be between 24-26 seconds (no more, no less) hog line to tee line.

The surface should be keen and easy to sweep.

The above conditions should remain throughout the duration of the competition.

Agreement Points:

- The Ice Technician accepts the Role of Ice Technician and agrees to follow the Code of Conduct
- The Ice Technician agrees to make ice to the best of their ability to match the WCF definition and conditions of competition ice as defined above
- The WCF will support the Ice Technician by ensuring that the stones provided for the Competition allow these conditions to be met
- The WCF will ensure the facility meets the technical requirements that the WCF requires for hosting WCF competitions
- Ice Technicians are not permitted to maintain the running surfaces on WCF stones without prior agreement and control from WCF
- The stone movement should be checked by the ice technicians and a WCF Stone and Technical Controller (WCF STC, currently Richard Harding, Eeva Röthlisberger or WCF Technical Delegate) prior to the start of the competition (i.e. - before the practice)
- If the above specifications regarding ice conditions are not being achieved due to either ice or stones, maintenance on the running surface of the stones can be done by the appointed Chief Ice Technician (CIT), but only under supervision from the WCF STC. Any procedure carried out shall be recorded by the CIT and WCF STC
- If stones other than WCF competition stones are being used, and the stones need to be maintained to meet the WCF's definition of competition ice, the WCF and the owner of the stones must give approval before any maintenance of the running surface can be carried out, and the WCF STC must be present
- If stones other than WCF competition stones are being used, and the required WCF specifications cannot be reached because of problems with these stones and the CIT is not allowed to maintain the stones by the owner, this will not be considered a failure on the part of the Chief Ice Technician

Competition(s) & Position:

Honorarium:

Championship – Job Title

US \$0

Read and agreed: Name: Name

Signature: _____

Date: _____

Appendix – Ice Technician Boxes

- There are 3 ice-technician sets

Set 1 and Set 2 are “full sets”

Set 3 has everything except a paint pail, pump and paint boom

- Each set has a contents list and any equipment that needs replacing needs to be reported back **immediately** from an event with a picture of the item and a description of what needs replaced
- Consumable items will be packed separately
i.e. wool, paint, sticky mats, under ice logos, jet ice canister polishers, sandpaper, stone handle bolts
- Stones must be packed in their correctly numbered boxes and then the boxes packed on the pallet in the correct way to prevent damage
- Blades need to be marked at the end of a competition as to how much use they have had

17.9 ANNEX 9 – REPORT TEMPLATES

CHIEF UMPIRE'S REPORT EVENT

Chief Umpire: Name

Deputy Chief Umpires: Name

Location: Country, City, Venue:

Dates of the event: from - to

Report Date: dd-mmm-yyyy

AREA	DISCUSSION / REPORT	RECOMMENDATIONS
OFFICIALS		
Game Umpires (list names)		
Which GU was nominated as Deputy-Deputy CU		
Chief and Deputy Chief Timer (list names)		
Ice Technicians (list names)		
Results / Stats (list names)		
COMPETING TEAMS (list if results not done by Curlit)		
RESULTS / RANKING (list if results not done by Curlit)		
DRAW SHOT CHALLENGE (list if results not done by Curling and DSC was used for ranking)		
TRAVEL ARRANGEMENTS (indicate if there were any problems)		
ACCOMMODATION (indicate if there were any problems)		
ACCREDITATION		
Available on arrival		
Suitability for access to all areas in arena for work		
Suitability for wearing for identification		

UMPIRE'S ROOM		
Access		
Correctly furnished (tables, chairs, clothing space)		
Drink facilities		
Proximity to FOP		
Size		
Security		
ARENA		
Overview		
Lighting		
Carpet / Floor covering kept clean		
P.A. System with roving microphone		
Waste disposal		
ICE		
(Note any discrepancies or problems found at the pre-event checks).		
Any particular comments from the competing teams should be noted and become part of the report.		
Otherwise leave the report to the Ice Technicians.		
VOLUNTEERS		
Numbers and quality of performance		
Size of volunteer room available		
Equipment		
Meeting		
Volunteer Schedule		
Suitable collection point for work sheets		
Volunteer Uniform		
TEAM MEETING		
Venue suitability, set up properly		
Equipment available – e.g. microphone		
Overall impression of the meeting		
Note if not all teams present and sanctions taken		

GAME TIMING		
Positioning and labelling of clocks		
If no problems, say so		
If problems, note them.		
SCHEDULE OF GAMES		
Mention any issues with the game schedule (i.e. delay of games due to different reasons)		
Any feedback from teams on the draw?		
MEASURES (quality and numbers available)		
HOG LINE		
Problems with "eye-on-the-hog" handles		
Problems to "human" eye calling		
SCORE BOARDS		
Positioning for "line of sight"		
last stone symbols, numbers, W/L signs		
ASSOCIATION BOARDS		
In dark / light colour for Associations / Teams		
Correct mounting for Score Boards		
Correct size for Score Boards		
RADIO and HEADSETS		
Number of radios available		
Ear pieces (enough, mal functioning, other issues)		
PRACTICE SESSIONS		
Pre-Event		
Pre-Game		
Evening Practice		
Additional Practice for post round robin games		
SAFETY (any accidents, injuries or health problems)		
EVENT FORMS		
Please send the event forms to the WCF office at the completion of the event for safe storage. Don't take them home with you.		
ICE ACCESS		

DRESS CODE VIOLATIONS		
STONES		
Stone history – who owns them, purchased from?		
Was a list of the stones and their pairings available?		
Any problems? list stones and numbers		
TEAMS		
Conduct of players and coaches (comments positive or negative)		
Coach / Alternate Bench		
SPORTSPERSON AWARDS (list recipient(s) if applicable)		
MEDIA (did Media follow established code of practice?)		
TELEVISION (schedule, any problems?)		
ON-ICE TEAM General comments on the Umpires, Ice Crew, Time Clock Operators, etc. can be included. This document could have a wide distribution, therefore specific comments (positive or negative) on individual performances should be sent in a separate document directly to the Director of Competitions.		
OVERALL SUMMARY		
DATE AND SIGNATURE		

Note: Please send your report to your event Technical Delegate for review who will then forward it to the Head of Competitions. Please attach to the report any required documents such as final ranking, Violation chart etc.

CHIEF TIMER'S REPORT EVENT

Chief Timer: Name
 Deputy Chief Timer: Name
 Location: Country, City, Venue:
 Dates of the event: from - to
 Report Date: dd-mmm-yyyy

AREA	DISCUSSION / REPORT	RECOMMENDATIONS
TRAVEL ARRANGEMENTS (indicate if there were any problems)		
ACCOMMODATION (indicate if there were any problems)		
ARENA		
Location and labelling of timer positions		
Positioning and labelling of clock displays		
If problems, note them		
TIMING EQUIPMENT		
Equipment used (type of equipment, source of the equipment, anything that might be important to know)		
Equipment setup (location, physical installation, wiring, availability of power)		
Total time needed for the setup (with how many people)		
If problems, note them		
VOLUNTEERS		
Number of volunteers		
Experience (curling, timing, CurlTime)		
Language (did everybody speak English?)		
Size of room available		
Equipment (stopwatches, etc)		
Advance information (was any information about the volunteers such as name, experience, etc already provided before the event?)		

Training (when, where and how was the training session organised?)		
Volunteer Schedule		
Volunteer Uniform		
Any problems with the volunteers <i>This document could have a wide distribution, therefore specific comments (positive or negative) on individual performances should be sent in a separate document directly to the Director of Competitions.</i>		
COMPETITION INFORMATION		
General aspects (schedule, incidents, etc.)		
Any issues with team clothing, such as dark/light colour conflicts, that affected the work of the timers?		
TELEVISION (schedule, any problems?)		
TIMING FORMS		
Who provided the timing forms?		
Have any copies been provided to teams?		
→ Please note: The timing forms have to be sent to the WCF Office at the end of the competition for safe storage.		
POST COMPETITION INFORMATION		
Packing of equipment		
Issues. Assistance		
Other pertinent information		
ON-ICE TEAM General comments on the Umpires, Ice Crew, Time Clock Operators, etc. can be included. <i>This document could have a wide distribution, therefore specific comments (positive or negative) on individual performances should be sent in a separate document directly to the Director of Competitions.</i>		
OVERALL SUMMARY		
DATE AND SIGNATURE		

Note: please include photos if and where appropriate. Please send your report to your event Technical Delegate for review who will then forward it to the Head of Competitions.

CHIEF ICE TECHNICIAN'S REPORT EVENT

Chief Ice Technician: Name

Deputy Chief Ice Technician(s): Name(s)

Location: Country, City, Venue:

Dates of the event: from - to

Report Date: dd-mmmm-yyyy

AREA	DISCUSSION / REPORT	RECOMMENDATIONS
INTRODUCTION		
Location of the competition venue		
Weather conditions (general)		
Building conditions and/or features		
Environmental conditions inside venue		
ICE INSTALLATION		
Good points		
Bad points. Issues. Problems		
Volunteers (numbers, assistance)		
EQUIPMENT AND WATER		
Ice making equipment		
Water		
Equipment needed/broken/damaged		
Consumable equipment needing replenished (provide list and quantity required) → please remember to report that, even you have already sent an e-mail to Rhona Martin and your WCF event TD before leaving the competition site		
COMPETITION INFORMATION		
General aspects (schedule, incidents, etc.)		
(If applicable) Issues with electronic handles, number replaced		
Battery packs on electronic handles used as spares/replaced		

Work done on stones (include sandpaper grit and pushes/pulls)		
Set of stones used (i.e. 4a, 5a, etc.) performance, ice performance, swing, times (Hog-Tee)		
Ice Boss blades numbers used for cutting and clipping! Give details as to requirement for re-sharpening		
POST COMPETITION INFORMATION		
Packing of equipment		
Issues. Assistance		
Other pertinent information		

Note: please include photos if and where appropriate. Please send your report to your event Technical Delegate for review who will then forward it to the Head of Competitions.