BRITISH GO ASSOCIATION

Tournament rules of play 31/03/2009

REFERENCES

[1] Official AGA rules of Go
http://www.usgo.org/resources/downloads/completerules.pdf

[2] BGA Interpretation of AGA Rules
http://www.britgo.org/rules/bgainterpretation.html

AUDIENCE AND PURPOSE

This document is the primary statement of the rules of play used in BGA tournaments. It is intended to have the same meaning as the official AGA rules [Ref 1] as supplemented by the BGA Interpretation [Ref 2], but if there is any conflict in meaning between the documents, then this document takes priority.

It is intended that this document provides a clear and easy to read statement of the rules of play as used in BGA tournaments, but it is not intended as an introductory text for the game of Go.

1. THE BOARD, STONES, AND GAME START

Go is played on a *board* usually of size 19x19, 13x13, or 9x9. In these rules the players are named Black and White. Black uses black stones, White uses white stones.

Before the first move is played, the players must agree on the method of counting - area or territory as specified in rule **12**. If they cannot agree then territory counting is used.

2. PLAY

The players move alternately with Black moving first starting from an empty board in even games. In handicap games, White moves first after all the handicap stones have been placed according to rule **4**.

A board-play is the placement of a stone on an empty intersection. A play consists of placing a stone on an empty intersection and then removing captured *strings* (if any). A move consists of a play or passing - rule **7**.

3. KOMI

Unless otherwise stated, Komi in even games is 7½. Komi in Handicap games is ½.

4. HANDICAP

Unless otherwise stated, the handicap stones are placed on the star points in the traditional Japanese pattern. If area counting is used, White receives a point for each handicap stone bar the first. White receives ½ point Komi independently of the counting method used.

5. CAPTURE

The following capture rules are applied in the order stated:

5.1 Capture
As soon as a stone is placed on the board, each opposing string which has had its *liberty* count reduced to zero by the stone must be removed from the board. The removed stones become the prisoners of the capturing player. Prisoners must remain visible at all times, no matter which counting method is used.

5.2 Self-Capture
It is illegal to play a stone which would create a string with no liberties.

6. REPEATED BOARD POSITION

6.1 Ko
It is illegal for a player to capture a single stone which itself captured a single stone of the same player on the previous move.

6.2 Superko
It is illegal for a player to play so as to recreate a *board position* of the game, previously created by a play of the same player.

7. PASS

A player may pass by handing the opponent one stone (called a pass stone) instead of playing a stone on the board. A pass is always legal. Pass stones are added to the opponent's prisoners.

8. ILLEGAL AND IRREGULAR MOVES

The rules require that players move alternately -rule **2**, and do not make board-plays on forbidden intersections which would lead to self-capture - rule **5.2,** or repeating board positions - rule **6**. Violation of these rules is illegal and if they occur players must follow the procedures given in **8.1** below.

There are other stone placements which violate the rules such as failing to remove all the stones in a captured string or playing on an occupied intersection for example. These are irregularities and are subject to the procedures given in **8.2** below.

It is assumed throughout that illegal or irregular moves are made innocently and unintentionally.

8.1 Illegal moves.
The full list of illegal moves is given in Appendix A.1. If a player makes an illegal move, and this is noticed before the next move, then the board position must be unwound to the position just before the illegal move. The player's illegal move is then replaced by a pass, and a pass stone given to the opponent. Note that in the case of two or more moves in a row, all the moves in the sequence must be unwound.

If the illegal move is noticed only after some intervening moves have been played, then the players can agree to rewind to the position just before the illegal move. The offending player then makes a legal move, rather than passing.

If the players do not agree to rewind, then play continues as is, except:

i. In the case of self-capture, the string is removed from the board and given to the opponent as prisoners.

ii. In the case of two or more moves in a row, the referee must be consulted.

8.2 Irregular moves
As soon as an irregular move is noticed, the board position should be corrected to the mutual satisfaction of both players. A list of known irregular moves with common corrections is given in Appendix A.2.

9. GAME END

The game pauses after two consecutive passes. The players must then attempt to reach agreement on which strings can be removed from the board without further play (the status of the strings).

If the players agree on the status of **all** strings, then the relevant stones are removed and they become the prisoners of the capturing player. If Black was the last to pass, then White must make an additional pass as in rule **11**. The game is then scored as in rule **12**.

If there is disagreement on the status of one or more strings, then the game is resumed as in rule **10**.

10. DISPUTES

If the players disagree on the status of one or more strings after they have both passed, then alternation is resumed according to the following prescription:

i. The opponent of the last person to pass has the first move of the resumed game.

ii. During the resumed game, **all** of the alternation rules 1 to 9 apply.

iii. The game can end under the following condition when players cannot agree the status of all strings:

> If the first two moves of the resumption are pass, so making 4 consecutive passes in total, the game ends with all stones remaining on the board.

Once the game has ended, White must again make the last pass if necessary to satisfy rule **11**

11. THE LAST MOVE

White must make the last move to end the game - if necessary handing a pass stone to Black after the game has ended according to rules **9** or **10**. This ensures Black and White made exactly the same number of moves.

12. COUNTING

There are two methods for counting the score after the end of the game has been reached via rules **9** or **10**. These are territory counting - rule **12.1**, and area counting - rule **12.2**. It is shown in Appendix B that the two methods of counting yield the same game result - **12.3**.

Territory is defined as empty points surrounded by stones of the same colour. So eye points in seki contribute to territory.

12.1 Territory counting
A player's territory score is the territory surrounded by the player's stones plus the number of prisoners held by the player.

12.2 Area counting
A player's area score is the sum of all the player's stones on the board and the player's territory. Note that prisoners do not contribute to the area score, but they must be kept visible at all times during the progress of the game.

12.3 The Game result
The game score is: White's score plus komi awarded to White minus Black's score. If the game score is greater than zero, White wins, otherwise Black wins. There are no draws with the default komi of 7½ for even games or ½ for handicap games.

GLOSSARY

This glossary contains definitions for terms used in the rules, regarded as common knowledge, but which are not defined in the main rules text. They are nevertheless part of the rules.

Definitions are presented in alphabetic order. A term in *italics* means that it is defined later in the glossary.

Adjacent
Two distinct *points* of the grid are adjacent if they lie on the same line of the grid and there is no intervening grid point on the line. A grid point is adjacent to a set of points if it is adjacent to at least one point in the set. Stones are adjacent if they *occupy* adjacent grid points.

Board
The board is a grid consisting of *N* horizontal lines and *M* vertical lines. In tournament games *M*=*N*, and *N* is usually 9, 13, or 19.

Board position
The board position is the list of *states* for each grid point.

Boundary
A point *p* is a boundary point of a *connected* set of points *T*, if *p* does not lie in *T*, but *p* is adjacent to *T*.

Connected
A set *S* of points of the grid is connected if *S* is a single point, or given any two points *A* and *B* of the set, a *path* can be found which starts at *A*, ends at *B*, and every point in the path is a point of *S*. A set *S* of stones of the same colour is connected if the set of grid points occupied by *S* is connected.

Empty
A grid point is empty if it is not occupied by a stone.

Liberty
A liberty of a string is an empty grid point adjacent to the string.

Occupied
A stone placed on a grid point occupies that point. The grid point is then occupied by Black if the stone is a black stone or is occupied by White if the stone is white.

Path
A path in the grid is a sequence of points such that every consecutive pair of points in the sequence are adjacent. The path starts at the first point in the sequence and ends at the last.

Point
A point of the grid is the intersection of a horizontal line of the board with a vertical line of the board.

State
A grid point can be in one of the states: occupied by Black; occupied by White or empty.

String
A connected set *S* of stones of colour *C* is a string, if any stone of colour *C* adjacent to *S* is contained in *S.* Note that this this definition ensures that strings are maximal entities, so one cannot capture part of a string.

Territory
A territory is a connected set of empty points whose boundary is occupied by stones all of the same colour.

APPENDIX A - ILLEGAL MOVES AND IRREGULARITIES.

A.1 Illegal moves

The following are the illegal plays forbidden by the rules.

i. Moving two or more times in a row i.e. without any intervening move by the opponent - rule **2.**

ii. Self capture -rule **5.2**.

iii. Retaking a Ko out of turn - rule **6.1**.

iv. Repeating a previous board position- rule **6.2**.

A.2 Irregularities

The following are the known irregularities with common methods for correcting them.

*i. Playing a stone of the wrong colour - rule **2**.*
If noticed immediately, replace the stone with one of the right colour and complete any consequent captures. If noticed later, try and fix the board position as best as possible by agreement of both players. A stone count can be used to decide if a stone of the wrong colour has been played.

*ii. Placing a stone on an occupied intersection - rule **2**.*
If noticed immediately, remove the stone from the board and then make a legal move. If noticed later, just remove the stone from the board and hand it as a prisoner to your opponent.

*iii. Placing a stone in between grid points - rule **2**.*
Ask the owner of the stone to please position it on its intended intersection.

*iv. Placing handicap stones in the wrong position - rule **4**.*
If this is noticed immediately before White's first move then set the stones correctly. Otherwise just carry on.

v. *Failing to remove all the captured stones rule **5.1**.*
Remove the stones and give them to the player who captured them.

*vi. Removing stones that still have one or more liberties - rule **5.1**.*
Replace all the removed stones. The original 'capturing' stone stays on the board.

APPENDIX B - THE EQUIVALENCE THEOREM

The equivalence theorem states that the game result obtained by area counting is the same as the game result obtained by territory counting.

This proof is based on the proof given in the French rules (inspired by the AGA rules). The proof keeps track of stones and territories, and relies on rule 11 which ensures that Black and White made exactly the same number of moves. Assume the game has ended without dispute, and all prisoners removed.

BLACK COUNT	WHITE COUNT	MEANING
T_b	T_w	Territory
S_b	S_w	Stones on the board
P_b	P_w	Prisoners in opponent's lid
R_b	R_w	Pass stones given by player
$M_b = S_b + P_b + R_b$	$M_w = S_w + P_w + R_w$	Total moves
$A_b = S_b + T_b$	$A_w = S_w + T_w$	Area Score
$Q_b = T_b - P_b - R_b$	$Q_w = T_w - P_w - R_w$	Territory score

Table of Counts

Rule 11 ensures that the total moves by Black equals the total moves by White, so:

$$M_b = M_w$$

From the third last line of the table we then get:

$$S_b + P_b + R_b = S_w + P_w + R_w.$$

Hence the difference in the stone count is:

$$S_b - S_w = P_w - P_b + R_w - R_b$$

Now the area score difference is obtained from the second last line of the table as:

$$A_b - A_w = S_b - S_w + T_b - T_w.$$

We can eliminate the stone count difference in this expression to get:

$$A_b - A_w = P_w - P_b + R_w - R_b + T_b - T_w.$$

But from the last line of the table we see that the territory score difference is:

$$Q_b - Q_w = (T_b - P_b - R_b) - (T_w - P_w - R_w)$$

This can be re-arranged to give:

$$Q_b - Q_w = T_b - T_w + P_w - P_b + R_w - R_b$$

This is identical to the expression for the area score difference.

Corollary 1 Jigo

On a board with an odd number N of intersections, komi should be odd to allow jigo.

Suppose there are no seki positions, so every empty intersection is territory.

Then $A_b + A_w = N$, and the area score difference is $A_w - A_b = N - 2A_b$. The game score difference with a komi of K is:

$$D = A_w - A_b + K = N + K - 2A_b.$$

For D to be zero, N+K must be even. Since N is odd, we require K to be odd.

Corollary 2 Optimum Komi

On a board with an odd number of intersections, the minimum winning White score difference is obtained with fractional odd Komi.

Using the same notation as in Corollary 1, we have $D = N + K - 2 A_b$, and we will express $N=2n+1$. We have established in Corollary 1 that the minimum possible game score difference is zero when komi is integral odd. For the minimum non-zero score difference, all we need to do then is to examine the cases of fractional even komi and fractional odd komi. Without loss of generality we can take the fractional part to be ½.

Suppose first that komi is fractional even, so $K = 2k + ½$. The score difference D then has the value:

$$D = 2(n+k-A_b) + 1 + ½.$$

The minimum winning value of D occurs when the factor multiplying 2 is zero (If the factor were -1, then D becomes a loss). In this case then the minimum winning value of D is $D_{min} = 1½$.

Suppose next that komi is fractional odd, so K has the form $K = 2k+1 + ½$. Then

$$D = 2(n+k+1-A_b) + ½.$$

The minimum possible winning value of D is therefore $D_{min} = ½$.

This shows that fractional odd komi gives the lowest possible winning margin.

It is of interest to see how the minimum possible score differences vary for increasing values of komi:

Komi	0	½	1	1½
Minimum score difference	1	1½	0	½

The minimum score differences just repeat the above values as K is increased by 2 for any column in the table.

Corollary 3 Handicap games

The equivalence theorem holds for handicap games.

Suppose the handicap is H stones taken by Black. Then at move 1, Black places H stones on the board to start with, i.e. H-1 more stones than in an even game. Using the same notation as in the Table of Counts above, it follows that the number of moves by Black is given by $M_b = S_b + P_b + R_b - (H-1)$.

From the table, the number of moves by White is $M_w = S_w + P_w + R_w$. Since $M_b = M_w$, the stone count difference is given by:

$$S_b - S_w = P_w - P_b + R_w - R_b + (H-1)$$

Now by Rule 4 in a handicap game, White is given an additional H-1 points, so the area score difference is:

$$A_b - A_w = S_b - S_w + T_b - T_w - (H-1) = P_w - P_b + R_w - R_b + T_b - T_w.$$

This is identical to the expression for the territory score difference:

$$Q_b - Q_w = T_b - T_w + P_w - P_b + R_w - R_b$$