

Agenda for the FIDE Technical Commission TEC Meeting, Abu Dhabi, UAE, September 2, 2015

11:00-13.00

Chairman: Bharat Singh
Secretary: Andrzej Filipowicz

1. Opening by chairman
2. Final text of the Separate Chapter of the Technical matters published in the FIDE Handbook & Website – the information
3. Chess Vision – the new system of transmitting games – details included
4. Tie-break system in FIDE and Continental events – details included
 - 4.1. The proposal of Hungarian Chess Federation – summary
 - 4.2. Unplayed matches and games
5. Regulations of the FIDE and Continental events – the way to unify
6. Miscellaneous

Explanation and details

Ad. 3. Chess Vision

The representatives of TEC the Chairman and the Secretary have visited Tel Aviv to have a closer inspection of 'Chess Vision'. Following the observations:

1. Chess Vision is indeed a novel technology that identifies chess moves through a camera and broadcast the chess game online in real-time (not live). The system can digitize and upload games as they happen.
2. As per manufacturers, it has been used at various events in Israel such as the European Championship, Jerusalem Championship, Israel National Leagues and others.
3. The operations are simple as a smartphone is located over the chessboard and the game video is proceeded on the device with the use of Computer Vision technology. The moves are transmitted to ChessVision cloud service for the broadcast. The application is run on a dedicated smartphones provided by Chess Vision. No other apps are available on the devices besides the pre install ones and the Chess Vision service.
4. There is assurance that very soon this technology will be available for use on any smartphone.
5. Close attention has been given to FIDE's anti-cheating guidelines. By default, the moves are broadcasted with a 5 minutes delay. The delay duration can be adjusted according to event regulations – which is good for the anti-cheating measures. The players are not allowed to touch the phones. The screens are turned off during the match, and they are password locked to eliminate any possible use.
6. In addition all sounds are muted to eliminate players' distraction and Bluetooth is disabled as well.
7. Some important features are:

- a) Its affordability compared to the existing DGT boards which are very expensive.
- b) Its very good for the third world nations where accessibility as well as affordability is always a big question.
- c) There is very little transportation cost involved.

Additional remarks

- (i) **However, they are yet to figure out the process to include the chess clock reading and currently it doesn't show in the webcast.**
- (ii) Overall, The representatives of TEC were impressed by the technology and it is worth a try.
- (iii) The TEC is sure that we need to instruct the "Chess Vision team" on inclusion of the Chess Clock as part of the broadcast.

The TEC is ready to approve the new technology to broadcast the chess game online and send to the FIDE Executive for their approval.

Ad. 4. Tie-break system used in all official FIDE competitions 2014-2015

TEAM COMPETITIONS

T.1. Olympiad, Tromso 2014

1. Number of match points
2. The sum of Sonneborn-Berger points, which are calculated as follows:
 - match points of each opponent, excluding the opponent who scored the lowest number of match points, multiplied by the number of game points achieved against this opponent;
3. The number of the game points scored;
4. The sum of the match points of all the teams opponents, excluding the lowest one.

For tie-break purposes a bye or an unplayed match:

- a) if the opponent team does not appear on time – are counted as a drawn match against a virtual opponent.
- b) At the start of the round this virtual opponent has the same number of match points and game points as the team present. Then the result of the unplayed match is added (1 matchpoint and 4 gamepoints in case of an unplayed win, 1 matchpoint and 2 gamepoints in case of a bye, 0 matchpoints and 0 gamepoints in case of an unplayed loss) and finally for each subsequent round 1 matchpoint and 2 gamepoints.

Individual medals for Board Prizes - Tromso 2014

1. The players performance rating shall be compared. Only players who have played a minimum of 8 games shall be eligible for board prizes.
2. If the performance rating is equal, the tie shall be broken by

- (a) the number of games,
- (b) the players performance rating after deducting the result against the lowest rated opponent,
- c) the players performance rating after deducting the results against the two lowest rated opponents and so on.

T.2. Olympiad under 16, Hungary 2014

1. Number of match points
2. Number of game points
3. Buchholz (all matches included).

Individual medals for Board Prizes - Hungary 2014

Player`s performance rating from all their games shall be compared.
Board Numbers 1 to 4 have to play at least 60% of the rounds;
Board Number 5 has to play at least 50% of the rounds.

T.3. World Team Championships 2015 (10 teams – Round-Robin)

1. Number of match points
2. Number of game points
3. The direct encounter - scores obtained by the tying teams against each other.
4. Berger system.
5. Board Mount (Berlin system) as follows:
 - a win on Board 1 = 4 points
 - a win on Board 2 = 3 points
 - a win on Board 3 = 2 points
 - a win on Board 4 = 1 pointIn case of drawn games these points are shared.
6. These teams shall play a match against each other at a fast time-rate (15 minutes per player for the entire game); if this match is indecisive, then lots shall be drawn.

Individual medals for Board Prizes

1. The players` percentage scores from their games,
 - Players of boards 1 to 4 who take part in at least 60% of the rounds (i.e. at least in 6 games for 9 rounds).
 - Players of board 5 who take part in at least 50% of the rounds (i.e. at least in 5 games for 9 round
2. The points,
3. Number of games
4. The performance.

T.4. European Team Championship 2015

1. Number of match points
2. The sum of Sonneborn-Berger points, which is calculated as follows:
 - match points of each opponent, excluding the opponent who scored the lowest number of match points, multiplied by the number of board points scored against each opponent respectively.

3. The number of board points won.
4. The sum of the board points of all team's opponents.
5. The sum of the board points of all opponents defeated plus one half of the board points of all the opponents with which a tied result was achieved.

Individual medals for Board Prizes – European Team Ch. 2015

1. Average rating of the opponents cut-1, (unplayed games, byes are not calculated);
 2. Buchholz cut-1,
 3. Buchholz,
 4. Number of wins
- In case of unplayed games, for the calculation of (2), (3) and (4), the current FIDE Tournament Rules shall be applied.

In case there are less than 75% rated players, the following criteria will be applied:

- (a) Buchholz cut-1
- (b) Buchholz,
- (c) Number of wins,

INDIVIDUAL COMPETITIONS

I.1. World Championship match 2014,

- (a) A new drawing of colors, four (4) tie-break games G-25'+10"
- (b) A new drawing of colors and a match of 2 games G-5'+3"
- (c) A new drawing of colors and the second match of 2 games G-5'+3"
- (d) A new drawing of colors and following matches (until 5 matches – total 10 games)) of 2 games G-5'+3"
- (e) Armageddon G-5'-4' and 3"/move from move 61 In case of a draw the player with the black pieces is declared the winner.

I.2. World Cup 2015, knockout-system (classical 2 games, in the final 4 games)

1. A new drawing of colours, two (2) tie-break games shall be played. G 25'+10"
2. A new drawing of colours, a match of 2 games G10'+10"
3. A new drawing of colours, a match of 2 games G-5'+3"
4. Armageddon G-5'-4' and 3"/move from move 61 In case of a draw the player with the black pieces is declared the winner.

I.3. Candidate tournaments (round-robin) 2014

In case of a tie for the first place

- (a) The results of the games between the players involved in the tie.
- (b) The total number of wins of every player involved in the tie.
- (c) Sonneborn - Berger System.

- (d) A new drawing of colours and a the match of two games G-25'+10" will be held among all players with the same points scored according to tie-break system.
- (e) A new drawing of colours, a match of 2 games G-5'+3"
- (f) A new drawing of colours, the second match of 2 games G-5'+3"
- (g) Armageddon G-5'-4' and 3"/move from move 61 In case of a draw the player with the black pieces is declared the winner.

I.4. World Junior U20 and World Youth (8-18 years) 2014

- (a) Result of direct encounters between the tied players (applies only if all tied players have played each other);
- (b) Buchholz Cut 1
- (c) Buchholz,
- (d) The greater number of games played with black;
- (e) The greater number of wins

I.5. World Senior Championships 2014, men and women 50+ and 65+

- a) Direct Encounter (the results of the players in the same point group)
- b) Buchholz (variabel with parameter)
- c) Buchholz
- d) Most black
- e) The number of wins

I.7. Rapid and blitz World Championships 2014

The tie break system (for medals only) is as follows:

- (a) ARCO (Average Rating of Opponents Cut 1)
- (b) Buchholz Cut 1,
- (c) Direct Encounter
- (d) The greater number of games with Black (unplayed games counted as White)

I.8. Individual European Championship 2015

1. Average rating of the opponents cut-1, (unplayed games, byes are not calculated);
2. Buchholz cut-1
3. Buchholz,
4. Number of wins

In case of unplayed games, for the calculation of (2), (3) and (4), the current FIDE Tournament Rules shall be applied.

In case there are less than 75% rated players in the event, the following criteria will be applied:

- (a) Buchholz cut-1
- (b) Buchholz,
- (c) Number of wins,

Report

FIDE TECHNICAL COMMISSION

Meeting Prague CZE

“Amarilis” Hotel, April 25-26, 2015

Present: Bharat SINGH (Chairman) Andrzej FILIPOWICZ (Secretary), Sultan AL TAHER, Chanda NSAKANYA, Jan MAZUCH and Roberto RICCA

Agenda for the FIDE Technical Commission TEC Meeting, Prague CZE, April 25-26, 2015

10:00-13.00 and 15:00-20:00

Chairman: Bharat Singh

Secretary: Andrzej Filipowicz

1. Opening by chairman
 - a) Final text of the Separate Chapter of the Technical matters in the FIDE Handbook & Website Including Tournament hall requirements
 - b) Chess equipments
 - c) Internet Broadcast
 - d) Guidelines on treatment of disabled chess players
 - e) Electronic scoresheet – remarks and recommendation
 - f) Testing of chess clocks - procedure
2. The proposal of the Hungarian CF regarding the tie-break system of Olympiads.
3. Tie-break system in FIDE and Continental events –remarks of Mr. R. Anantharam of India and the official proposal to the FIDE PB
4. The theory of the FIDE tie-break system was removed from the FIDE Rules of Chess and we have to publish in the Technical matters as a separate chapter.
5. Miscellaneous – Committee for the Tie-break system

Report FIDE TECHNICAL COMMISSION

1. **Chairman** Bharat Singh welcomed the participants of the meeting and introduced details of Agenda.
2. **The Commission** once again passed throughout the proposed Chapter of the Technical matters be published in the FIDE Handbook & Website (see TEC Tromso Annex 1). After discussion TEC decided to wait for remarks of the FIDE Presidential Board be held at the end of April 2015 in China and the to make corrections.

TEC discussed the electronic scoresheet and expressed the opinion, that this scoresheet requires the further to more investigation regarding the cheating and price.

3. The proposal of the Hungarian CF regarding the tie-break system of Olympiads was discussed long time

TEC thanks to Dr. Gusztav Font, the representative of the Hungarian Chess Federation for his remarks, concerning the tie-break system of Olympiads. He draws our attention to the current system, that may have some weak points.

However the given example, that according to the present system 3-1 (or higher difference) against a relatively weaker opponent was far much more valuable than 2.5-1.5 victory (let alone 2-2) against the best team is not solved by the proposal of using Buchholz cut 1.

- A) The idea to use Buchholz cut 1 as the first TB means that game points are not used and the result of the match is not important. Winning 4-0 or 2,5-1,5 or losing the match gives the same Buchholz
- B) Using this proposal means that the game points are not important and therefore the team competition is basically managed like individual tournament and we feel that is not right.
- C) The TB system used in the Olympiad U-16 where the games points, are the first TB is contrasting the example given in the proposal.
- D) According to the TEC opinion, the Berger system is a good compromise. However the system of counting Berger can be discussed.

4. The Hungarian Chess Federation also proposed to use a different pairing system for the Olympiad

Currently, the pairing system used at the Olympiad tries to pair teams with the same number of match-points, after ranking them based on their game points and then initial rating.

The HCF is proposing to use a kind of seeding system usually used at open tournaments, which basically means that just rating should be used. It is obviously true that, if game points are not taken into consideration, the top rated teams, as long as they keep winning their games, will not meet in the early rounds. However, is this a good enough reason to change the pairing system? The proposed system, as well as the current one, cannot guarantee that, at the end of the tournament, some teams, just by the luck of the draw, will not have had an easier path than others.

In order to at least try to guarantee a more even field for all teams involved, it could be used a system that has the goal to level the average of opponents' rating (something like: in each scoregroup, the team with the highest ARO indicatively meet the team with the lowest rating) . However, if some pairs look weird in the current pairing system, there will be a lot weirder pairs in a system like the one depicted above.

5. The new idea to be discussed

In meantime the TEC discussed also the change of match points which is used for instance in volleyball and in soccer.

We discussed also the following solution:

The new idea

Match result	Match points		or
2-2	2 - 2		2-2
	won - lost		
2,5-1,5	3 - 1		4-1
3-1	3 - 1		4-1
3,5-0,5	4 - 0		5-0
4-0	4 - 0		5-0

6. Tie-break system in FIDE and Continental events – remarks of Mr. R. Anantharam of India and the official proposal to the FIDE PB.

- 6.1. The TEC thanks to IA R. Anantharam of India for his remarks regarding the system of TB in World and Continental Events and discussed the matter carefully.
- 5.2. TEC found interesting the mathematical/statistical approach of the tie-break theory for individual Swiss tournaments presented by **Roberto Ricca** and adopted his conclusion.

Tie-breaks can be basically divided in four groups, listed in order of recommendation:

A.1	(Opponents') Score	Based on the score achieved in the tournament by the met opponents, but not strictly on the results of the games played with the opponents. <i>To clarify: if player X met A and B and scored 1 point, for this kind of tie-breaks, it is meaningless if X beat A and lost by B, or beat B and lost by A or drew both.</i>
A.2	(Opponents') Rating	It is a principle similar to A.1, but based on the ratings of the met opponents.
B	Results	Based on the results achieved by the player or on the moment that these results were achieved.
C	Situational	Based on particular situations.

In a tie-break list, it is recommended to use tie-breaks of different types in order to measure different achievements.

- 1) The first tie-break criterion should be **Median Buchholz** (if all positions in the standings matter) or **Buchholz Cut-1** (if only positions at the top of the standings are important)
- 2) After that, when all people are rated and ratings are reliable, put **APRO** [Average (Tournament) Performance Rating of Opponents] after **Median**.
- 3) As the rating criterion to be placed after **Buchholz Cut-1**, there is no meaningful difference among ARO [Average Rating of Opponents] [or TPR Tournament Performance Rating (given by ARO + rating points-displacement depending on the percentage of points achieved)], AROC [ARO Cut-1 (the lowest rated opponent is excluded)] and APRO, hence, for uniformity, give the preference to APRO.

Note: Criteria based on ratings can still be used when not all people are rated or ratings are unreliable, but some adjustment is needed, for instance using TPR as a provisional rating for an unrated player.

- 4) If ratings are not reliable, use Sum of Progressive Points (also known as **Progressive Score**) as the second tie-break.
- 5) The third tie-break should be **Number of Wins** (when there is an odd number of rounds in a tournament) or **Number of Blacks** (when there is an even number of rounds)
- 6) **Direct Encounter** is neither a good nor a bad tie-break. It is basically meaningless, so it is a choice of the tournament director whether to use it. When used, it is recommended to have it as the **second** criterion.

In order to have a unique list of tie-break, usable in all kinds of world tournaments patronized by FIDE, the following one is recommended:

1. **Buchholz Cut-1** *In many instances, Median gives better confidence marks, but Cut-1 is the best criterion with the top positions, which usually matter more. In any case, it is an excellent approximation of Median in the situations where the latter would be better.*
2. **APRO**
3. **Progressive Scores** *When APRO is used it is meaningless, otherwise it got the best marks as the second criterion (see considerations on Direct Encounter)*
4. **Number of Wins** *Tournaments with an odd number of rounds are the majority, and in these tournaments it is better to reward the wins than the number of blacks.*

TEC asks Roberto Ricca to complete the analysis with recommendations also for the management of unplayed games, currently not included in his study.

7. Miscellaneous

- 6.1.** We discussed the 2014 CBC proposal in Tromso and we think it is necessary to create the separate committee regarding the tie-break. This is open for members of other commissions.

The TEC propose to include:

IA Andrzej Filipowicz

IA Roberto Ricca

IA R. Anantharam

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- 6.2.** TEC proposes to FIDE Secretariat to inform and ask all producers of digital clocks to start workshops in all continents to repair clocks.
- 6.3.** TEC has accepted the proposal of Dutch Chess federation to include Mr. Albert Vasse as a member of TEC.
- 6.4.** TEC commemorated a minute of silence for the victims of the earthquake in Nepal and India
- 6.5.** The next meeting is foreseen in Abu Dhabi UAE during the FIDE Congress

Chairman thanked all the participants for very fruitful meeting and discussion.

FIDE Technical Commission

Chairman

Bharat Singh

Secretary

Andrzej Filipowicz