

Scarborough Community of Toronto

Chess News & Views

Newsletter of / Le Journal de
Scarborough Chess Club

“ FRIENDLY Chess Since 1960 ”

ITEMS OF INTEREST TO BOTH MEMBERS & NON-MEMBERS

Issue # 13 – March 15, 2005

Do You Know ? / Savez-Vous ?

Kasparov Wins Linares

This 7-player double round-robin is the strongest tournament in the world and was played at Linares, Spain, from February 23 – March 10. It included Garry Kasparov (Russia), ranked # 1 in the world, and 13th FIDE World Champion, Viswanthan Anand (India), 2000 FIDE World Champion, and 2nd ranked player, Veselin Topalov (Bulgaria), ranked # 3, Peter Leko (Hungary), ranked # 5, Michael Adams (England), ranked # 6/7, Rustam Kasimdzhanov (Uzbekistan), 2004 FIDE World Champion, ranked # 25, and Francisco Vallejo Pons (Spain), # 18 . It was an exciting match which saw Kasparov lead from the start, only to be defeated by Topalov in the last round, to have Topalov tie him with 8/12 pts.. But Garry won on second tie break, having more wins with Black. (And Garry could have come clear first, but missed a clear draw in the game with Topalov). Anand came third with 6.5/12 pts..

2005 Shocker of the Year – Kasparov Retires !!

Immediately after winning the prestigious Linares tournament, and confirming his ranking as # 1 in the world (for 20 of his 30 years in professional chess), Garry Kasparov dropped the bombshell that he was now retiring from professional chess. This will be a great disappointment to his many fans, who kept hoping that he would get a rematch with classical world champion, Vladimir Kramnik (Russia), and regain his championship. The chess world will definitely be a new ballgame with Kasparov no longer dominating from the # 1 position.

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Toronto Class Tournament

This 5 round swiss tournament on March 12-13 at Tartu College in Toronto drew 72 players. The winners were :

Open Section: 1st – Robert Hamilton - 5/5pts – he won the \$ 1500 Lotto Bonus for 5 wins, for a first prize of \$ 1900.

2nd – Jura Ochkoos - 4/5 pts.

U 2200 – Andrei Gulko - 4.5/5 pts.

U 2000 – Tied for first – Arthur Calugar & Jonathan Yu - 4/5 pts.

U 1800 – David Gurr – 4.5/5 pts.

U 1600 & Unr. – Joe Leung – 5/5 pts. – he won the Lotto Bonus of \$ 260 for a first prize of \$ 510.

Ontario Closed

This tournament was played in Ottawa from March 4 – 6 and was a 12 – player 5-round swiss. The winner with 4/5 was Sebastian Predescu. In second place with 3.5/5 was Canadian junior champion, Zhe Quan.

Our Readers Write ! – Comments on the Canadian Chess Website History

Maurice Smith, past CFC President, writes about the article in our last Issue by David Cohen on the History of the Canadian Chess Website :

The following is my response to David Cohen's article in the previous Newsletter concerning the History of the Canadian Chess Web Site. David mentions the items he is doing research on such as a list of Canadian Champions, FIDE Title Holders, etc. This is fine, but at the same time he criticizes the CFC for not doing the work that he is doing. That is blatantly unfair. To begin with, researching the history of chess in Canada is a hobby for David. It is something he enjoys doing. It is all very important to him. However, I generally find that most chessplayers do not give these things the same degree of importance that he does. I play in three different chess clubs and the topics of conversation rarely touch the items that David is working on. Ratings, now that is a topic on almost everyone's mind. So the CFC has to concentrate on what are regarded as the essential items for CFC members. There is just one full time employee in the CFC Business Office. He goes beyond the call of duty to make sure all the myriad of things that are important to CFC members are taken care of. In the last five years we have two such employees quit because they got burned out. The main problem is a lack of funding to hire additional full time staff. There are no Government grants. The CFC must rely on membership fees, rating fees, and the sale of chess supplies for its revenue. It is a fragile financial situation. If all chess players bought their chess supplies from the CFC it would surely help. Meanwhile the Business Office gets unfairly blamed for items that they have no control over. When the magazine is late, the Office gets blamed, but they do not produce it or print it. They just see that it gets distributed. When the Governors Letter is late, it is not the fault of the Business Office. They send it out as soon as it gets

approved. Members complain about their tournaments not getting rated, but it is invariably the fault of the TD for not sending it in by the required time. To summarize then, the Office looks after all the day to day things that are the most important to its members. There is no time for anything else. Having a volunteer such as David Cohen work on other items that will be of some interest to some members is a bonus. Good for him and good for us. In the meantime I ask David to stop taking cheap shops at the CFC Office. It may be an easy target, but it is an unfair target and the sooner most people realize this the better for everyone.

Fischer Gets No Relief

Former World Champion Bobby Fischer has not been released from detention in Japan, even though Iceland has now issued him a passport. And now new problems appear on the horizon. On Sunday, a Japanese newspaper reported that U.S. prosecutors are now also building a case against Fischer for alleged tax evasion. It said the U.S. Internal Revenue Service is expected to seek a grand jury indictment against Fischer and charge him with five counts of tax evasion. The grand jury is set to start April 5. If Fischer is indicted, Japan would be obligated to send him to the United States under a bilateral treaty.

Computer Chess and Canada

(Submitted by David Cohen)

The first person to beat a computer program at chess was Alick Glennie, a graduate student, who defeated Alan Turing's program in the first ever chess game between human and computer program, back in 1952. Programming computers to play chess attracted the interest of computer scientists. The problem was one of artificial intelligence. Could a machine be programmed to perform an intellectual activity as well as humans?

Initial difficulties were in the area of an important problem in computer science in the 1960s: search algorithms. As a chess game progresses, the number of possible positions that can arise quickly reaches astronomical proportions. A computer could not look at each chess position (to evaluate its worth). So, algorithms had to be developed to prune the tree of possible moves and replies, to concentrate upon the sensible moves. But what is sensible to the human eye and experience took decades to program into computers.

One of Phil Haley's most memorable games was a win from a 1969 open tournament against a computer. This was one of the first times that a computer was entered in a competition against human opponents.

Phil Haley - Dataline PDP-10 (MacHack 7)
Labour Day Open, Toronto, 1969

1. Nf3 Nf6 2. g3 d5 3. Bg2 c5 4. d3 Nc6 5. Bf4 Bf5 6. O-O Qb6 7. Nc3 Qxb2 8. Qd2 d4 9. Ne4 Nxe4 10. dxe4 Bxe4 11. Rfb1 Qc3 12. Qxc3 dxc3 13. Rxb7 Nb4 14. Rb8+ Rxb8

15. Bxb8 Nxc2 16. Rc1 Nd4 17. Nxd4 Bxg2 18. Nb5 Bh3 19. Bxa7 Bd7 20. Nc7+ Kd8 21. Nd5 c4 22. Nxc3 e5 23. Ne4 Bb5 24. Rb1 Bc6 25. Nc3 Bd7 26. a4 Bf5 27. e4 Bc8 28. a5 Ba6 29. Rb6 Kc8 30. Nd5 f6 31. Rc6+ Kd7 32. Rxa6 Kc8 33. Rb6 Kd7 34. Rb8 Kc6 35. Be3 c3 36. Nxc3 Kc7 37. Re8 Kd7 38. a6 Kxe8 39. a7 Kd7 40. a8(Q) Ke7 41. Qb7+ Kd6 42. Nd5 f5 43. Qc7+ Ke6 44. Qc8+ Kf7 45. Qxf5+ Ke8 46. Qe6+ Kd8 47. Bb6# 1-0

To encourage the effort of computer scientists, the Association for Computing Machinery (ACM) organized U.S. Computer Chess Championships at its annual conventions. The organizer of the first event in 1970, Monty Newborn, became a Computer Science Professor at McGill University in Montreal. His program (originally with George Arnold), Ostrich, was a regular competitor at the U.S., North American, and World Computer Championships. A win in the following last round game would have given Ostrich a tie for first place in the 1st World Computer Championship. Unfortunately, the program missed the winning move, 35. Rxh6+, as finding it required a search depth of 19-ply (1 ply = one side's move), which was beyond its capabilities. It also missed another winning move, 39. Bf5, which required an 11-ply search. Later in his career, Newborn applied the results obtained from research on search algorithms in the field of computer chess to the field of internet searching.

Ostrich - Kaissa
1st World Computer Championship, Stockholm, 1974

1. Nf3 e6 2. d4 Nf6 3. Bg5 d5 4. e3 Be7 5. Nc3 Bb4 6. Bxf6 Bxc3+ 7. bxc3 Qxf6 8. Bd3 c5 9. O-O O-O 10. Qd2 Nc6 11. dxc5 Qe7 12. c4 dxc4 13. Bxc4 Qxc5 14. Qd3 Rd8 15. Qe4 b5 16. Bd3 f5 17. Qh4 e5 18. e4 f4 19. Rfe1 Bb7 20. Ng5 h6 21. Ne6 Qb6 22. Nxd8 Rxd8 23. a4 b4 24. Bc4+ Kh8 25. Rad1 Nd4 26. Rc1 Bc6 27. c3 bxc3 28. Rxc3 Bxa4 29. Qe7 Nc6 30. Qf7 Qc5 31. Rd3 Nd4 32. Bd5 Bb5 33. Rh3 Ne2+ 34. Kh1 Qxf2 35. Rd1 Qb6 36. Rb1 Rc8 37. Be6 Rd8 38. Qg6 Qb7 39. Qf5 Qc7 40. Rh4 Nd4 41. Qh3 Nxe6 42. Qxe6 Bd3 43. Rg1 Bc4 44. Qf5 Be2 45. Ra1 a5 46. Qg6 a4 47. Re1 Bc4 48. Ra1 a3 49. Rb1 Qd6 50. Qxd6 Rxd6 51. Rh3 a2 52. Rc1 Rd4 53. Rhc3 Rxe4 54. Ra1 Rd4 55. Rxc4 Rxc4 56. g3 f3 57. h3 Rc2 58. Rd1 Rd2 59. Rc1 e4 60. g4 e3 61. Kg1 e2 62. Kf2 Rd1 63. Rc8+ Kh7 64. Kxf3 e1(Q) 65. Rc2 Rd3+ 66. Kf4 g5+ 67. Kf5 Rf3# 0-1

The next Canadian success was Ribbit (later TreeFrog), a computer chess program written at the University of Waterloo by Ron Hansen, Jim Parry, and Russell Crook. Becoming 1974 Canadian Computer Champion and 1974 U.S. Computer Champion, it tied for 2nd place at the 1974 World Computer Championship. With the ACM event renamed the North American Computer Championship in 1975, the program finished in 2nd place. Here is the final round game which won Ribbit the 1974 U.S. Computer Championship with a perfect score.

Ribbit - Chess 4.0
U.S. Computer Championship, San Diego, 1974

1. e4 c5 2. c3 d5 3. exd5 Qxd5 4. d4 cxd4 5. cxd4 Nc6 6. Nf3 Bg4 7. Nc3 Qd6 8. d5 Nb4 9. Bb5+ Bd7 10. Bxd7+ Kxd7 11. Be3 Qa6 12. Ne5+ Ke8 13. a3 Qd6 14. Qa4+ Nc6 15.

dxc6 bxc6 16. Nxc6 e5 17. Nxa7+ Qd7 18. Qxd7+ Kxd7 19. Rd1+ Ke6 20. O-O Nf6 21. b4 Be7 22. h3 h5 23. Rfe1 h4 24. Rd3 e4 25. Bd4 Rhe8 26. Bxf6 Bxf6 27. Rxe4+ Kf5 28. Rxe8 Rxe8 29. g4+ hxg3 30. fxg3 Re1+ 31. Kf2 Rc1 32. g4+ Kg6 33. Ne4 Be5 34. b5 Rc2+ 35. Kf3 Rh2 36. Nf2 Bf6 37. Rd6 Kh7 38. Rd5 Bb2 39. Kg3 Rxf2 40. Kxf2 Bxa3 41. b6 Bc1 42. b7 Bf4 43. Nc6 Bc7 44. Rd7 Bf4 45. Rxf7 Bd6 46. b8(Q) Bxb8 47. Nxb8 Kg6 48. Rf5 Kh6 49. Nd7 g6 50. Rf6 Kg5 51. Kg3 Kh6 52. Ne5 Kg7 53. g5 Kg8 54. Nxg6 Kh7 55. h4 Kg8 56. h5 Kg7 57. h6+ Kh7 58. Ne5 Kh8 59. g6 Kg8 60. Kg4 Kh8 61. Rf8# 1-0

The 2nd World Computer Chess Championship was held in Toronto in August 1977, and was won by an American program, Chess 4.6. The event attracted the electrical engineer and author of "The Theory and Prospects of Application of Asynchronized Synchronous Machines" (based on his doctoral thesis), former World Chess Champion Mikhail Botvinnik. While in Toronto, he gave a simultaneous exhibition, scoring +12 =7 –1, including a draw with Bryon Nickoloff.

Three other Canadian computer chess programs were regular competitors at these championship events. Chute was developed by Michael Valenti and International Master Zvonko Vranesic, Professor, Department of Electrical and Computer Engineering, University of Toronto. It started as Valenti's M.A.Sc. thesis project, under Dr. Vranesic's supervision, with Valenti as programmer and with chess input provided by Vranesic. L'Excentrique defeated the defending Champion, Chess 4.9, at the 1980 World Computer Championship. AWIT, written by Anthony (Tony) Marsland, Professor, Computing Science, University of Alberta, finished in 2nd place at the 1983 World Computer Championship.

In 1968, Scottish Champion David Levy made a bet that no computer program would beat him in a match within a decade. Over time, the bet grew in size to nearly \$10,000, as new parties joined in. In April 1977, IM Levy beat Chess 4.6 1-0 in a two game match. At the end of 1977, Levy beat KAISSA 1-0 in a two game match at McGill University. In August 1978, Levy beat MACHACK/CHEOPS 1-0 in a two game match at Cambridge, MA, USA. To settle the bet, Levy played a six game match against Chess 4.7 at the Canadian National Exhibition in Toronto from 1978.08.26-09.04. Round 1, with the computer as Black, saw the first draw achieved by a computer program against an IM under tournament conditions (40 moves in 2 hours, followed by 20 moves per hour). Levy recovered to win Rounds 2 and 3. Needing only a draw to win the bet, Levy took a chance with some risky play in Round 4. Here is the first win achieved by a computer program against an IM under tournament conditions.

Chess 4.7 - David Levy
 Levy Challenge Match (4), Toronto, 1978

1. e4 e5 2. Nf3 f5 3. exf5 e4 4. Ne5 Nf6 5. Ng4 d5 6. Nxf6+ Qxf6 7. Qh5+ Qf7 8. Qxf7+ Kxf7 9. Nc3 c6 10. d3 exd3 11. Bxd3 Nd7 12. Bf4 Nc5 13. g4 Nxd3+ 14. cxd3 Bc5 15. O-O h5 16. Na4 Bd4 17. Be3 Be5 18. d4 Bd6 19. h3 b6 20. Rfe1 Bd7 21. Nc3 hxg4 22. hxg4 Rh4 23. f3 Rah8 24. Kf1 Bg3 25. Re2 Bc8 26. Kg2 Bd6 27. Bg1 Rh3 28. Rae1 Rg3+ 29. Kf2 Rhh3 30. Re3 Ba6 31. Ne2 Bxe2 32. R1xe2 c5 33. f4 Rxe3 34. Rxe3 Rh4

35. Kg3 Rh1 36. Bf2 Rd1 37. Ra3 cxd4 38. Rxa7+ Kf8 39. Rd7 Rd3+ 40. Kg2 Bc5 41. Rxd5 Rd2 42. b4 Bxb4 43. Rd8+ Kf7 44. Rd7+ Kf8 45. Rxd4 Rb2 46. Kf3 Bc5 47. Rd8+ Ke7 48. Bh4+ Kf7 49. g5 g6 50. Rd7+ Kf8 51. fxg6 Rxa2 52. f5 Ra3+ 53. Kg4 Ra4+ 54. Kh5 Rd4 55. Rc7 Be7 56. f6 1-0

Levy again recovered, to win Round 5, the match 3.5-1.5, and the bet.

By the mid-1980s, Jonathan Schaeffer was writing his Master's thesis at University of Waterloo on programming computers to do long range-planning in chess. His program, Sun Phoenix, tied for first place in the 1986 World Computer Championship.

BCP - Sun Phoenix
5th World Computer Championship, Cologne, 1986

1. e4 e6 2. d4 d5 3. e5 c5 4. c3 Qb6 5. Nf3 Bd7 6. Bd3 cxd4 7. Nxd4 Nc6 8. Nxc6 Bxc6 9. O-O O-O-O 10. Nd2 f6 11. Qg4 Re8 12. Re1 Nh6 13. Qh3 Bc5 14. Qg3 Ng4 15. Qxg4 Bxf2+ 16. Kf1 Bxe1 17. Kxe1 fxe5 18. Qxg7 Qe3+ 19. Be2 Rhg8 20. Qf7 Bb5 21. Qf2 Qxe2+ 22. Qxe2 Bxe2 23. Kxe2 Rxg2+ 24. Ke3 Rxh2 25. a4 Rf8 26. a5 h5 27. Ra4 Rh1 28. Ra1 h4 29. Rb1 Re1+ 30. Kd3 h3 31. Nf1 Rfxf1 0-1

The 6th World Computer Chess Championship was held in Edmonton in 1989, and was won by Deep Thought. One of its programmers was Murray Campbell, a former top junior from Alberta. His first success was as a member of the team that programmed Hitech, the 1985 North American Computer Chess Champion.

Naturally, as stronger players took an interest in the field, the programs' abilities to evaluate the chess worth of a position improved. However, up to this time, the main improvements in chess programs came from refining the software's ability to search positions. Instead, Schaeffer had two ideas to improve the hardware upon which his program could run. First, to operate several computers in parallel. Second, to create a processing chip (the heart of all computers) dedicated to chess. The chip would have the software encoded onto its hardware, thus enabling it to process the instructions faster.

Several years later, IBM surpassed his second idea: they built an entire machine, called Deep Blue, that was dedicated solely to chess. The hardware could do nothing but search and evaluate chess positions. However, it did so faster than any machine in history: hundreds of millions of chess positions were examined per second. With such speed to command, its programmers abandoned the old approaches. Their new method was called brute force; simply, every possible position was searched by the specialized hardware. There was no attempt at refining the search algorithm; all possibilities would be examined and nothing would be missed. One of Deep Blue's programmers was Campbell, who was responsible for the function that evaluated each chess position.

Deep Blue beat Garry Kasparov in a game, but lost their 1996 match. Nevertheless, this was the first time that a computer chess program had won an individual game against a World Champion.

Deep Blue - Garry Kasparov
ACM Chess Challenge (1), Philadelphia, 1996

1. e4 c5 2. c3 d5 3. exd5 Qxd5 4. d4 Nf6 5. Nf3 Bg4 6. Be2 e6 7. h3 Bh5 8. O-O Nc6 9. Be3 cxd4 10. cxd4 Bb4 11. a3 Ba5 12. Nc3 Qd6 13. Nb5 Qe7 14. Ne5 Bxe2 15. Qxe2 O-O 16. Rac1 Rac8 17. Bg5 Bb6 18. Bxf6 gxf6 19. Nc4 Rfd8 20. Nxb6 axb6 21. Rfd1 f5 22. Qe3 Qf6 23. d5 Rxd5 24. Rxd5 exd5 25. b3 Kh8 26. Qxb6 Rg8 27. Qc5 d4 28. Nd6 f4 29. Nxb7 Ne5 30. Qd5 f3 31. g3 Nd3 32. Rc7 Re8 33. Nd6 Re1+ 34. Kh2 Nxf2 35. Nxf7+ Kg7 36. Ng5+ Kh6 37. Rxh7+ 1-0

The documentary film 'Game Over: Kasparov and the Machine' tells the story of the IBM computer Deep Blue's victory over World Chess Champion Garry Kasparov in their 1997 match. This brings us to the debate which is presented in the film. Are computers capable of recognizing a situation which calls for long-range planning? If yes, can they then choose to ignore the short-term considerations, and proceed with the first step of a longer-range plan? This situation occurred in Game 2 of the match, when the computer played its 37th move. Kasparov was clearly upset, considering it inconceivable that the machine could proceed this way. The film presents his suspicions that a human intervened to force the move selection. The other side is also presented, in an interview with Grandmaster Joel Benjamin, the chess player who taught the computer to recognize these situations and play them this way. Benjamin stated that this was the first game in which a computer showed that it could play Grandmaster level chess.

An interesting point is what happens when a human uses the computer's recommended moves to play a game, e.g., on the internet or in correspondence chess. In theory, the human's results should match those of the computer. However, in practice, the human's results tend to be an average of the two (I believe this was described by Jonathan Berry and Knut Neven in En Passant magazine). When the human is the weaker of the two, then the computer will improve the human's results. The supposition is that when the human is the stronger of the two, then the human will improve the computer's results. This was the situation at the time of the 1997 match, hence, Kasparov's suspicion that a strong human player had intervened to improve the computer's move selection.

Developments since the match have shown that Schaeffer's and Benjamin's goals of teaching a computer to include long-range planning in its move selection program were successful. Today, you can buy desk-top software for less than \$100 that will easily find the move which so upset Kasparov. Versions of these desk-top programs which run on faster hardware have drawn matches with World Champions Kasparov and Kramnik. They are not pure brute force programs. A simple composed problem, where White must mate in two moves, can stump these programs. The programs still use highly refined search algorithms, thus, they overlook the unnatural moves favoured by problem composers. Nevertheless, after 50 years of computer programming, humans have reached their ultimate goal for their creations: programs capable of matching the highest level of human intellect in the field of chess.

A - Members/ non-members may contact Bob Armstrong, ed. , directly, at bobarm@sympatico.ca or through SCC e-mail, to :

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