

The Sixteenth
ACM North American
Computer Chess Championship

Denver, Colorado
October 13-15, 1985
A Special Event at ACM-85

Table of Contents

- Welcome and overview	1
- Important times and places	2
- Scorecard	3
- List of participants	4
- Computing system information	5
- History of major tournaments	6
- ACM's Fifteenth NA Championship	8
- Tournament rules	16
- Computer chess literature	18
- The ACM Computer Chess Committee	19
- The ICCA	19
- The Turing Test	20

WELCOME AND OVERVIEW

For the sixteenth consecutive year, the ACM is hosting a major computer chess event at its Annual Conference. In the early years the programs barely played respectable chess, but over the years they have gradually improved to the point where they now play at the Master level. And there is general optimism that they can improve more. During the course of the tournament, the authors will have the chance to discuss their latest ideas with their colleagues and get new ideas to implement in their own programs.

While the field is a bit smaller than usual, the quality is quite strong. Robert Hyatt, Burt Gower and Harry Nelson will use a four processor Cray computer to defend their ACM title. Their program, CRAY BLITZ, won the world championship in 1983 at the ACM Annual Conference in New York. It will face strong competition from several programs including BEBE, runner-up for the world championship in 1983, CHAOS, HITECH, which searches 175,000 nodes/second using specially designed VLSI circuitry, and PHOENIX, running on a network of VAX 780's and SUN workstations. An exciting four rounds is anticipated.

The audience might observe that the computers are getting bigger and faster every year. This year, there are three multiprocessing systems, two Cray computers, two Amdahl computers, one home brewed (BEBE), and a couple of strong microcomputers. There are very exciting things happening in the world of computer architecture and chess.

In addition to the tournament, a panel discussion on "Chess programs: from the basement to the marketplace" should provide the audience with an interesting view of the commercial chess world. A technical session will feature two papers on some of the latest developments. And-- a special Turing Test will be given on Monday, October 14th, to see who is best at telling man from machine.

Rick Wittekind and Garth Courtois have done an excellent job in handling the local arrangements and we want to extend them a big thanks. A thanks also goes to Mike Valvo, who will serve again as our Tournament Director. Last but not least, the participants deserve a special thanks for coming here, given all the problems of putting together and running increasingly more complex systems. We hope the audience enjoys the show; feel free to ask questions and express your emotions and opinions.

Monty Newborn, Chairman, ACM Computer Chess Committee
Hans Berliner, Tony Marsland, Kathe Spracklen,
and Ken Thompson, Members.

IMPORTANT TIMES AND PLACES

Required meeting of all participants: 12:00 pm, Sunday October 13th
in the Breckenridge Room.

Schedule of Rounds:

Round 1:	1:00 pm	Sunday	October 13th
Round 2:	7:30 pm	Sunday	October 13th
Round 3:	7:30 pm	Monday	October 14th
Round 4:	7:30 pm	Tuesday	October 15th

Location: The tournament will take place in the Breckenridge Room
of the Denver Raddison Hotel.

Admission: Included in Same-day Conference Registration, or \$5/day
or \$10 for all three days.

ACM Computer Chess Committee Luncheon: 12:00 noon Monday October 14.
Non-committee members are welcome to attend. Place to be announced.

Turing Test: Monday October 14 in the Breckenridge Room at 1:30 pm.

ICCA Meeting: October 14 at 5:30 pm in the Breckenridge Room.

Panel Session: "Chess Programs: From the Basement to the Marketplace,"
Tuesday October 15th at 2:00 pm.

Technical Paper Session: Tuesday October 15 at 4:00 pm.

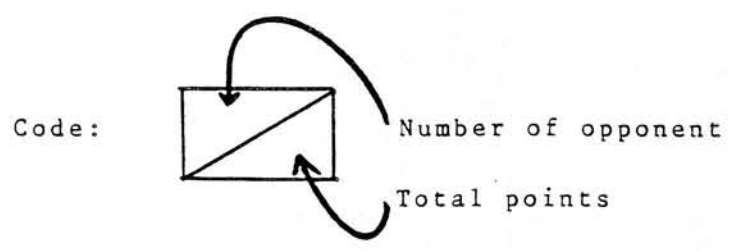
Awards Luncheon: Wednesday October 16 at 12:00 noon.



MATING DANCE PERFORMED BY OSTRICHES ON "NOVA"

SCORECARD
 ACM'S SIXTEENTH NORTH AMERICAN
 COMPUTER CHESS CHAMPIONSHIP

TEAM	ROUNDS				TOTAL POINTS	FINAL PLACE
	1	2	3	4		
1. AWIT	/	/	/	/		
2. BEBE	/	/	/	/		
3. CHAOS	/	/	/	/		
4. CRAY BLITZ	/	/	/	/		
5. HITECH	/	/	/	/		
6. INTELLIGENT SOFTWARE	/	/	/	/		
7. LACHEX	/	/	/	/		
8. OSTRICH	/	/	/	/		
9. PHOENIX	/	/	/	/		
10. SPOC	/	/	/	/		
	/	/	/	/		
	/	/	/	/		



PARTICIPANTS IN THE ACM'S SIXTEENTH
NORTH AMERICAN COMPUTER CHESS CHAMPIONSHIP

- AWIT Tony Marsland, Computing Science Department,
University of Alberta, Edmonton, Alberta,
Canada, T6G 2H1.
 - BEBE Tony Scherzer, SYS-10 Inc., 2117 Stonington
Avenue, Hoffman Estates, Illinois 60195.
 - CHAOS Mike Alexander, Fred Swartz, and Jack O'Keefe,
c/o FS, Computing Center, University of
Michigan, 1075 Beal Avenue, Ann Arbor,
Michigan, 48109.
 - CRAY BLITZ Robert Hyatt, Albert Gower, and Harry Nelson,
c/o RH, 1020 Gordon Woods Drive, Birmingham,
Alabama, 35244.
 - HITECH Carl Ebeling, Hans Berliner, Gordon Goetsch,
Andy Palay, Murray Campbell, and Larry Slomer,
c/o HB, Computer Science Department, Carnegie-
Mellon University, Pittsburgh, Pennsylvania, 15213.
 - INTELLIGENT SOFTWARE Mark Taylor, David Levy, and Kevin O'Connell, c/o
DL, 11 Loudoun Road, London NW8 0LP, England.
 - LACHEX Burton Wendroff, MS B284, Los Alamos National
Laboratory, Los Alamos, New Mexico, 87545.
 - OSTRICH Monty Newborn, School of Computer Science,
McGill University, Montreal, Quebec, Canada, H3A2K6.
 - PHOENIX Jonathan Schaeffer, Department of Computer Science,
University of Alberta, Edmonton, Alberta, Canada,
T6G 2H1.
 - SPOC Jacques Middlecoff, SDI/Cypress Software, 1450
Koll Circle, Ste. 108, San Jose, California, 95112.
-
- Standby:
- BELLE Ken Thompson, Joe Condon, c/o KT, Bell Laboratories
Room 2C 519, Murray Hill New Jersey, 07974.

COMPUTING SYSTEM INFORMATION

<u>Program</u>	<u>Computing System(Location)</u>	<u>Language</u>	<u>Memory Space</u>	<u>Book Size</u>	<u>Nodes/Sec.</u>
AWIT	Amdahl 5860 (Univ. of Alberta) 24 mb, 32 bits, 13 mips	Algol W	.75 mb	10 k	10
BEBE	Custom Chess Engine, (at site) 65 kb, 16 bits, 10 mips	Assembler	65 kw + tt	3.5 k	20 k
CHAOS	Amdahl 5860 or 1200 (Amdahl Corp, Sunnyvale) 16 mb, 32 bits, 10 mips	FORTRAN	6 mb	10 k	70
CRAY BLITZ	Cray X-MP 48 (Cray Corp., Men. Hts) 8 mw, 64 bits, 420 mips (4-processor machine)	FORT/Assm.	8 mw	50 k	100 k
HITECH	SUN with special chess circuitry 3 mb, 32 bits, .8 mips (Carnegie-Matton Univ.)	C	600 kb	4 k	175 k
INTELLIGENT SOFTWARE	Apple IIE (6502-based) with accelerator (at site)	Assembler	64 kb	3 k	500
LACHEX	Cray X-MP 48 (Mendota Heights) 8 mw, 64 bits, 105 mips	FORT/Assm.	1.16 mb	NA	50 k
OSTRICH	8 DG computers: 1 Eclipse S/120, 6 Nova 4s, 1 Nova 3, (McGill Univ.) 32 kw/comp, 16 bits, 1 mips/comp.	Assembler	24 kw/comp.	2.5 k	1.2 K
PHOENIX	Network of VAX 780s and SUNS (10 in parallel) (Univ. of Alberta)	C	220 k + tt	5 k	540
SPOC	IBM PC (at site) 128 kb, 16 bits, 4.77mhz	8086 Assemb.	80 kb	.5 k	300
BELLE	DEC 11/23 with chess circuitry (Bell Laboratories)	C	NA	NA	160 k

HISTORY OF THE MAJOR TOURNAMENTS

World Championships

<u>Year</u>	<u>City</u>	<u>Winner</u>	<u>Runner-up</u>
1974	Stockholm (at IFIPS-74)	KAISSA; Donskoy, Arlazarov ICL 4/70	CHES 4.0; Slate, Atkin; CDC 6600
1977	Toronto (at IFIPS-77)	CHES 4.6; Slate, Atkin, CDC Cyber 176	DUCHESS; Truscott, Wright, Jensen, IBM 370/165
1980	Linz	BELLE; Thompson, Condon, PDP 11/23 with special hardware	CHAOS; Alexander, Swartz, Berman, O,Keefe, Amdahl 470/V8
1983	New York (at ACM-83)	CRAY BLITZ; Hyatt, Gower, Nelson, Cray X-MP	BEBE; Scherzer, Chess Engine

ACM's North American Championships

1970	New York	CHES 3.0; Slate, Atkin, Gorlen, CDC 6400	Daly Chess Program; Daly, King, Varian
1971	Chicago	CHES 3.5; Slate, Atkin, Gorlen, CDC 6400	TECH; Gillogly, PDP 10
1972	Boston	CHES 3.6; Slate, Atkin, Gorlen, CDC 6400	OSTRICH; Arnold, Newborn, DG Supernova
1973	Atlanta	CHES 4.0; Slate, Atkin, Gorlen, CDC 6400	TECH II, Baisley, PDP 10
1974	San Diego	RIBBIT; Hansen, Crook, Parry, Honeywell 6050	CHES 4.0; Slate, Atkin, CDC 6400
1975	Minneapolis	CHES 4.4; Slate, Atkin, CDC Cyber 175	TREEFROG; Hansen, Calnek, Crook, Honeywell 6080
1976	Houston	CHES 4.5; Slate, Atkin, CDC Cyber 176	CHAOS; Swartz, Ruben, Winograd, Berman, Toikka, Alexander, Amdahl 470

ACM's North American Championships (continued)

1977	Seattle	CHESSE 4.6; Slate, Atkin, CDC Cyber 176	DUCHESS; Truscott, Wright, Jensen, IBM 370/168
1978	Washington	BELLE; Thompson, Condon, PDP 11/70 with chess hardware	CHESSE 4.7; Slate, Atkin, CDC Cyber 176
1979	Detroit	CHESSE 4.9; Slate, Atkin, Cahlander, CDC Cyber 176	BELLE; Thompson, Condon, PDP 11/70 with chess hardware
1980	Nashville	BELLE; Thompson, Condon, PDP 11/70 with chess hardware	CHAOS; Alexander, O'Keefe, Swartz, Berman, Amdahl 470
1981	Los Angeles	BELLE; Thompson, Condon, PDP 11/23 with chess hardware	NUCHESSE; Blanchard, Slate, CDC Cyber 176
1982	Dallas	BELLE; Thompson, Condon, PDP 11/23 with chess hardware	CRAY BLITZ; Hyatt, Gower, Nelson, Cray 1
1983	Not held as the North American Championship that year but as a World Championship. See the information above on these championships.		
1984	San Francisco	CRAY BLITZ; Hyatt, Gower, Nelson, Cray X-MP (4-processor)	BEBE; Scherzer, Chess Engine and FIDELITY EXPERIMENTAL; Spracklen, Spracklen, 6502-based Fidelity machine.



ACM's Fifteenth North American Computer Chess Championship

D. Kopec San Diego State University

M. Newborn McGill University

CRAY BLITZ, the current world champion chess program written by Robert Hyatt, Albert Gower, and Harry Nelson of the University of Southern Mississippi, took first place in the ACM Fifteenth North American Computer Chess Championship held during the Association's 1984 annual conference. Running on a four-processor CRAY X-MP computer, CRAY BLITZ won the four-round Swiss System tournament with a perfect 4-0 score, a full one-point margin over its nearest rival. During the past three years CRAY BLITZ has established itself as the most successful of all the programs, having been runner-up in the 1982 ACM tournament and winner of the 1983 World Championship before its triumph in this event.

The outcome of the competition was far from certain until the contenders were well into the games of the final round. NUCHESS had maintained a strong position against CRAY BLITZ and it seemed possible that no less than four programs of the fourteen competing might tie for first place with identical 3-1 scores: CRAY BLITZ and NUCHESS, FIDELITY EXPERIMENTAL, and the winners of the BEBE versus NOVAG EXPERIMENTAL and CHAOS versus PHOENIX games. Nevertheless, CRAY BLITZ prevailed when NUCHESS failed to press its advantage, leaving three teams one point behind the winner.

BEBE (Tony Scherzer, SYS-10 Inc., Hoffman Estates, Illinois) and FIDELITY EXPERIMENTAL (Dan and Kathe Spracklen, Fidelity Computer Products, San Diego) shared second place with identical 3-1

scores and equal tie-break points. BEBE, playing on a custom-built bit sliced machine, also tied for second place last year. FIDELITY EXPERIMENTAL's tie for second place this year was the best performance by a microcomputer program to date, only losing to CRAY BLITZ in the first round.

CHAOS took fourth place with the same 3-1 score as the two second-place winners but scored lower on tie-break points. One of the oldest and most consistent of the participants, CHAOS, also suffered its only defeat to CRAY BLITZ.

A fifth-place score of 2.5/4 by BELLE (Ken Thompson, Joe Condon, Bell Laboratories) was surprisingly low for the former world champion and the only USCF master-rated program in the event.

Tony Marsland (moderator) along with panel members Robert Hyatt, Monroe Newborn, Tony Scherzer, and Ken Thompson held a panel discussion entitled "Chess on Non-standard Computer Architectures," which focused on special purpose chess hardware (Scherzer, Thompson) and parallel search systems (Hyatt, Marsland, Newborn). By the end of the discussion, a long-familiar discontent was reiterated by several members of the audience: What has happened to the knowledge representation approach and the attempts to model human cognition through chess programming?!

THE GAMES

Following are two annotated games and a listing of moves from a third. Readers interested in the results of

other recent ACM tournaments will find them reported in the September 1983 and August 1984 issues of *Communications*.

Symbols

! = A very good move
! ? = An interesting move
?! = A dubious move
? = A blunder
?? = A losing move

Round 2

BELLE-NUCHESS Sicilian Defense

In chess games between relatively well-matched human opponents a material advantage plays a significant role in the final outcome. This is ordinarily the case in computer chess games as well, where material takes the highest priority. However, there are special cases (positions) wherein the normally accepted relative values of the pieces do not hold true and some knowledge or deep understanding of the position is of much greater importance. In such situations a sacrifice is often required to transform a material advantage into a winning position. We see in the following game that BELLE was not quite ready to make the necessary sacrifice. BELLE managed to win NUCHESS's queen for two minor pieces. However, some material sacrifice (such as a rook for an advanced pawn and knight) was necessary for BELLE to take advantage of its material lead and remove Black's remaining trumps. Instead, BELLE tried to maintain a material advantage at all costs and gradually became entangled in an uncharac-

teristically passive and hopeless position.

1. e4 c5 2. c3

The "c3 Sicilian" has been in BELLE's library for the past few years and NUCHESS may well have been prepared for it.

2. ... e6 3. d4 cxd4 4. cxd4 d5 5. Bd3 dxe4 6. Bxe4 Nf6 7. Bc2

The game has now transposed in a queen's pawn opening and thus White's isolated queen-pawn represents both a strength (space) and a potential weakness.

7. ... Nc6 8. Nf3 b6

A provocative move in that Black delays castling kingside (e.g., 7. ... Be7) in order to seek the most active deployment of its queen's bishop.

9. 0-0 Ba6 10. Re1 Bb4

11. Nc3 0-0 12. a3 Be7

13. Bg5 Qd6

Well played. NUCHESS develops actively around the queen's pawn.

14. b4?

Before this move both programs have played logically, deploying their forces as two experienced humans might, while refraining from any unnecessarily committal moves. The text is weakening and anti-positional, giving Black potential en-

try points on the queen bishop's file via the c2, c3, and c4 squares.

14. ... Bc4 15. Ne5 b5?!

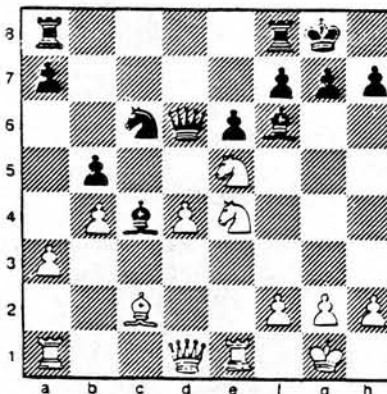
Interesting, although instead Black should now safely liquidate with

15. ... Nxe5 16. dxe5 Qxd1

17. Raxd1 Nd5 etc.; the text is also punishable by 16. Nxc6 Qxc6

17. Ne4.

16. Bxf6 Bxf6 17. Ne4!



Position after 17. Ne4!

Black is now confronted with an attack on its queen (which must guard the queen's knight on c6) and the threat of 18. Nxf6+ and if 18. ... gxf6, then White can force mate starting with 19. Bxh7+! then if 19. ... Kxh7 (or 19. ... Kh8 20. Qh5) 20. Qh5+ Kg7 21. Qg4+ Kh7 (or h8) 22. Re3. Black most

likely saw all this. The only way, however, that Black could have avoided this whole mess was to have played something other than 15. ... b5.

17. ... Bxe5 18. Nxd6 Bxd6

With Black having only a bishop and knight for a queen, White's victory should be a matter of simple technique, but it does require a plan and some smart exchanges.

19. Bd3 Ne7 20. Bxc4?

Better was first 20. Rc1 or 20. Qe2 to avoid giving Black a passed pawn. But BELLE, feeling itself well ahead was anxious to reduce material.

20. ... bxc4 21. Rc1 Rac8

22. Qe2 c3 23. Qa6?

A poor excursion. 23. Qf3 Nd5 24. Re3! Bf4 25. Rc2 would lead to a favorable transition ensuring White's victory. But while ahead, BELLE must have felt no compulsion to sacrifice material.

23. ... Bf4 24. Rc2 Ra8

25. Qb7? Nd5 26. Ree2 Bd2

27. Qa6 g6 28. Re4 Rfc8

During the past nine moves White has completely lost the thread of the game while Black's position has been strengthened.

29. Kh1 Rf8 30. Rh4 Bg5

31. Rh3 Be7

Unwilling to sacrifice, BELLE spurns a number of opportunities to sim-

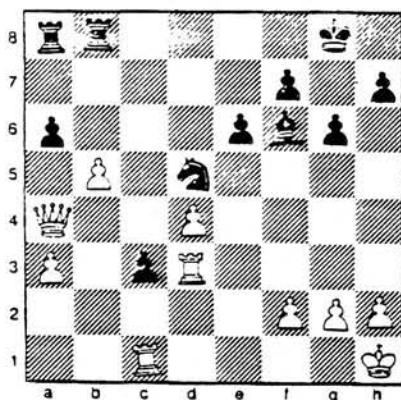
FINAL STANDINGS

Program	Authors	Computer	Points	Place
CRAY BLITZ	Hyatt, Gower, Nelson	Cray X-MP (4 processor)	4	1
BEBE	Scherzer	Custom-built bit-sliced machine	3	2
FIDELITY EXP	Spracklen, Spracklen	6502-based Fidelity machine (at site)	3	2
CHAOS	Alexander, Swartz, O'Keefe, Berman	Amdahl 5860	3	4
BELLE	Thompson, Condon	PDP 11/23 with special hardware	2.5	5
NUCHESS	Slate, Blanchard	Cray 1M	2	6
PHOENIX	Schaeffer	Amdahl 5820	2	7
NOVAG EXP	Kittinger, McDonald	6502-based Novag machine (at site)	2	8
INTELLIGENT SOFTWARE EXP	Taylor, Lang, Levy, O'Connell	Apple II (at site)	2	9
SCHACH 2.7	Engelbach	Burroughs 7900	1.5	10
OSTRICH	Newborn	Mltiproc. sys. (8 Novas)	1	11
AWIT	Marsland	Amdahl 5860/2	1	12
MERLIN	Kaindl, Wagner, Horacek	CDC Cyber 176	1	13
XENARBOR	Miller	IBM 3081	0	14

Note: Teams finishing with an equal number of points were ordered based on the number of points won by their opponents. If a tie remained, their opponents' opponents' points were counted. BEBE and FIDELITY EXP were still tied after this was done.

plify and ease the technical task with Rxc3.

32. Qa4 Bf6 33. Rd3 Rfd8
34. b5 Rdb8 35. Rc1 a6!



Position after 35 ... a6.

Suddenly Black forces a dangerous opening of files on the queenside.

36. bxa6 Rb6 37. a7 Rb7
38. Ra1 Rxa7 39. Qd1 Rb2

White's continuous passive play enables this to be the decisive incursion.

40. f3 c2 41. Qf1 Bg5 42. g3 Rab7
43. f4 Rb1 44. Rf3 Bf6 45. f5 Bxd4
46. Rxb1 cxb1 = Q (0-1).

Round 3

CRAY BLITZ-BEBE Sicilian Defense

1. e4 c5 2. d4

White initiates the Morra Gambit which can lead to a dangerous attack if Black does not know the theoretical replies.

2. ... cxd4 3. Nf3

White mixes play. The standard Morra Gambit continuation is 3. c3 dxc3 4. Nxc3. Now if Black plays 3. ... e5 4. c3 (not 4. Nxe5? Qa5+) transposes into a favorable version of the gambit.

3. ... Nc6 4. Nxd4 Nf6

5. Nc3 d6 6. f4

A very aggressive continuation, which Black meets accordingly with a sharp reply. Other quieter moves for White are 6. Bc4, 6. Be2, and 6. Bg5.

6. ... Qb6 7. Nb3 e5

This move continues the sharp play, although 7. ... e6 was a viable, more solid alternative.

8. Qe2!

A fine move (probably not in CRAY BLITZ's book) preparing to drive Black's queen with 9. Be3.

8. ... Bg4 9. Qb5 Qxb5

10. Bxb5 a6?

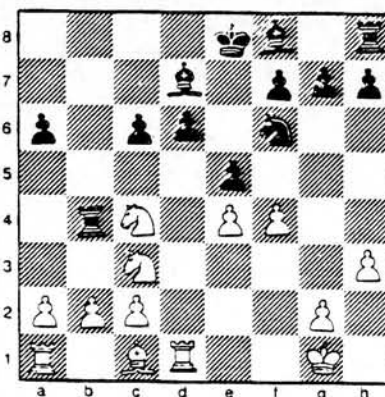
A time-wasting move whose defects will only show up later. Better was 10. ... Bd7 with a sound position. Now the threat of f5 trying to trap the bishop on g4 will persistently loom, although here 11. f5 fails to Nxe4 12. Nxe4 Bxf5, etc., with good compensation for the piece.

11. Bxc6+ bxc6 12. 0-0 Rb8?!

Suddenly Black's position is difficult. Tactical resources still save its bishop now after 13. f5 d5 14. h3 d4, etc. However, because the bishop on g4 is not safely placed, White has a significant lead in development. Black's rook does not really threaten and it should hasten to castle kingside instead.

13. Na5 Bd7 14. Rd1 Ng4?

15. h3 Nf6 16. Nc4 Rb4 17. b3!



Position after 16. ... Rb4

An excellent move that highlights the difficulties in Black's position and illustrates the flaws in BEBE's play.

17. ... d5 18. exd5 Bc5+

In a desperate position, BEBE again tries to find salvation through tactics, but to no avail. There are already too many problems with its position.

19. Kh2 Bd4 20. dxc6 Bxh3

21. Nd6+

White can choose from a number of winning continuations, e.g., 21. Kxh3 Bxc3 22. c7 Ke7 (or 22. ... 0-0 23. Rd8) 23. Ba3, which give Black not even a glimmer of hope.

21. ... Ke7 22. Kxh3 Kxd6

On 22. ... Bxc3 23. Ba3 wins anyway.

23. Ba3 a5 24. Bxb4+ axb4

25. Nb5+ Kxc6 26. Nxd4+ exd4

27. Rxd4

White now simply exploits its big material advantage.

27. ... Nd5 28. a3 bxa3

29. c4 Nb4 30. Rxa3 Re8

If 30. ... Nc2 31. Ra6+ Kb7

32. Rdd6.

31. Ra7 Re3+ 32. Kh4 Kc5

33. Rd8 Rxb3 34. Rc8+ Kd4

35. Rxf7 g6 36. Rxh7 Rc3

37. g3 (1-0).

Round 4

NUCHESS-CRAY BLITZ English Opening

NUCHESS played a superb final-round game against CRAY BLITZ. NUCHESS maintained a strong initiative deep into the end game before a "breakdown," due to its lack of understanding of the concept of an outside passed pawn, which CRAY BLITZ capitalized on after 45. Rxc6??.

1. c4 e5 2. Nc3 Bb4 3. a3 Bxc3

4. dxc3 Ne7 5. g3 d5 6. cxd5 Qxd5

7. Qxd5 Nxd5 8. Bg2 Nb6 9. a4 0-0

10. a5 Nc4 11. Ra4 Nd6 12. a6 Nd7

13. Be3 Nb6 14. Rh4 Rd8 15. axb7

Bxb7 16. Bxb7 Nxb7 17. Nf3 Rd5

18. c4 Ra5 19. 0-0 Ra2 20. Rd1

Rxb2 21. c5 Nc8 22. Rd7 f6 23. Rg4

g6 24. Rh4 h5 25. Rxc7 Nd8

26. Ra4 Rb7 27. Rxb7 Nxb7

28. Ra6 Kf7 29. Nd2 Nd8 30. Ne4 f5

31. Ng5+ Kg7 32. Nf3 Nf7

33. Nxe5 Nxe5 34. Bd4 Kg8 35. Bxe5

Ne7 36. e3 Kf7 37. Rf6+ Kg8

38. Kg2 Rc8 39. Kf3 Re8 40. Ra6

Ra8 41. Kf4 Kf7 42. Kg5 Rg8

43. Rf6+ Ke8 44. Bd6 Nc8 45. Rxc6??

Rxc6+ 46. Kxc6 Nxd6 47. cxd6 a5

48. g4 hxg4 49. Kxf5 a4 50. e4 a3

51. Kxg4 a2 52. e5 a1 = Q

53. f4 Qg1+ 54. Kf5 Qxh2 55. e6

Qc2+ (0-1).

ACM'S FIFTEENTH NORTH AMERICAN COMPUTER
CHESS CHAMPIONSHIP (NACCC)
San Francisco, California, October 7-9, 1984
RESULTS and GAMES (Ken Thompson)

	rate	perf	1	2	3	4	total
1 Cray Blitz	2200	2459	2+□	4+■	3+□	6+■	4
2 Fidelity X	1900	2041	1-■	11+□	9+■	10+□	3
3 Bebe	2100	2107	12+■	10+□	1-■	8+□	3
4 Chaos	1800	2046	11+■	1-□	13+■	7+□	3
5 Belle	2200	2016	7=■	6-□	12+■	13+□	2½
6 Nuchess	2150	2087	8=□	5+■	7=□	1-□	2
7 Phoenix	0	1981	5=□	9+□	6=■	4-■	2
8 Novag X	1900	1896	6=■	12+□	10=■	3-■	2
9 Intelligent Software X	0	1788	13+■	7-■	2-□	11+□	2
10 Schach 2.7	0	1722	14+□	3-■	8=□	2-■	1½
11 Ostrich	1750	1558	4-□	2-■	14+□	9-■	1
12 Awit	0	1600	3-□	8-■	5-□	14+■	1
13 Merlin	0	1506	9-□	14+■	4-□	5-■	1
14 Xenarbor	1400	1172	10-■	13-□	11-■	12-□	0

Round 1

cray blitz — fidelity x 1 e4 c5 2 d4 cxd4 3
 ♖f3 e5 4 c3 ♗a5 5 ♗b3 f6 6 ♖c4 ♖h6 7
 ♖xh6 gxh6 8 ♖g8 ♖d8 9 ♗f7 ♖xg8 10
 ♗xg8 ♖e8 11 ♗xh7 ♗b5 12 b3 ♗c6 13
 O-O dxc3 14 ♖xc3 b6 15 ♖d5 ♗d6 16 ♖h4
 ♖a6 17 ♖f5 ♗a3 18 ♗g6+ ♖d8 19 ♗xf6+
 ♖c8 20 ♖fc1+ ♖c4 21 ♖xc4+ ♗c5 22 ♗xf8+
 ♖b7 23 ♖xc5 bxc5 24 ♗xc5 ♖c6 25 ♖d6+
 ♖b8 26 ♗b5# 1-0

phoenix — belle 1 d4 d5 2 ♖g5 f6 3 ♖f4
 ♖c6 4 ♖f3 g5 5 ♖g3 g4 6 ♖g1 h5 7 h3 e5 8
 hxg4 ♖xg4 9 c3 exd4 10 cxd4 ♖ge7 11 f3
 ♖e6 12 e3 ♖f5 13 ♖f2 ♗d6 14 ♖d3 ♖b4 15
 g4 ♖xd3+ 16 ♗xd3 ♗b4+ 17 ♖c3 ♖g7 18
 O-O-O O-O-O 19 ♗g6 ♗e7 20 ♖h4 ♖e8
 21 g5 ♖f7 22 ♗d3 fxg5 23 ♗f5+ ♖b8 24
 ♖xg5 ♗d7 25 ♗xd7 ♖xd7 26 e4 ♖g8 27
 ♖h3 dxe4 28 fxe4 ♖e6 29 ♖f4 ♖g4 30 ♖d3
 ♖g7 31 ♖e3 ♖f7 32 ♖g5 ♖ff8 33 ♖d5 ♖h8
 34 ♖b1 ♖d6 35 ♖c1 ♖b5 36 a4 ♖xd4 37
 ♖xd4 ♖xg5 38 ♖xc7 ♖e2 39 ♖a3 ♖g4 40
 ♖e6 ♖fg8 41 ♖xh8 ♖xh8 42 ♖c5 h4 43
 ♖d7+ ♖a8 44 ♖f6 ♖f4 45 e5 ♖d8 46 ♖e3
 ♖f3 47 ♖d3 ♖h8 48 ♖dc3 ♖c6 49 b3 ♖f5 50
 ♖d5 ♖xe5 51 ♖c7+ ♖b8 52 ♖a6+ bxa6 53
 ♖xc6 h3 54 ♖xa6 h2 55 ♖h1 ♖g5 56 ♖c6
 ♖h3 57 ♖b2 ♖gg3 58 ♖c2 ♖xb3+ 59 ♖c1
 ♖a3 60 ♖hx2 ♖xh2 61 ♖xh2 ♖xa4 ½-½

nuchess — novag x 1. c4 e5 2 ♖c3 ♖f6 3
 ♖f3 ♖c6 4 g3 ♖b4 5 ♖g2 O-O 6 O-O ♖e8
 7 a3 ♖xc3 8 dxc3 d6 9 ♖e3 ♖e6 10 ♗a4
 ♖g4 11 ♖g5 ♖xe3 12 ♖xe6 ♖xe6 13 fxe3
 ♗g5 14 ♖xc6 ♗xe3+ 15 ♖f2 ♖f6 16 ♖af1
 ♖xf2 17 ♖xf2 bxc6 18 ♗xc6 ♖f8 19 ♗xc7
 ♗c1+ 20 ♖g2 ♗xb2 21 ♗xd6 ♗xc3 22 c5
 h6 23 c6 ♗d4 24 ♗xd4 exd4 25 ♖f5 ♖c8 26
 ♖c5 ♖f8 27 ♖f3 ♖e7 28 ♖e4 ♖d6 29 ♖a5
 ♖c7 30 ♖a6 ♖c5 31 a4 f6 32 h4 ♖c4 33 ♖a5
 g6 34 ♖a6 h5 35 ♖a5 ♖xc6 36 ♖xa7 ♖e6+ 37
 ♖f3 ♖e3+ 38 ♖f2 ♖c3 39 ♖b7 ♖e6 40 a5
 ♖a6 41 ♖b5 f5 42 ♖b6 ♖xa5 43 ♖xg6 ♖e5
 44 ♖g5 ♖c2 45 ♖f1 ♖xe2 46 ♖xf5 d3 47
 ♖c5+ ♖d1 48 ♖xh5 d2 49 ♖c5 ♖e1+ 50 ♖f2
 ♖e2+ 51 ♖f1 ♖e1+ 52 ♖f2 ♖e2+ 53 ♖f1
 ½-½

awit — bebe 1 c4 e5 2 ♖c3 ♖f6 3 ♖f3 ♖c6
 4 d3 d6 5 g3 g6 6 ♖g2 ♖g7 7 O-O O-O 8
 ♖b1 a5 9 a3 ♖d7 10 ♖g5 h6 11 ♖d2 g5 12
 ♗b3 b6 13 a4 g4 14 ♖e1 ♖d4 15 ♗a2 ♖c6
 16 f3 h5 17 h4 gxh3 18 ♖xh3 ♖d7 19 ♖xd7
 ♗xd7 20 ♖g2 ♖a6 21 ♖h1 ♖fa8 22 b4 axb4
 23 ♖xb4 ♖e6 24 ♖h4 ♖c5 25 ♖c2 ♖xa4 26
 ♖xa4 ♖xa4 27 ♖xa4 ♗xa4 28 ♗xa4 ♖xa4 29
 ♖b4 c5 30 ♖c6 ♖a2 31 ♖g5 ♖xe2+ 32 ♖f1
 ♖b2 33 ♖e7+ ♖h7 34 ♖xf6 ♖xf6 35 ♖xh5+
 ♖g7 36 ♖f5+ ♖g6 37 g4 ♖b1+ 38 ♖g2
 ♖b2+ 39 ♖f1 ♖g7 40 f4 f6 41 ♖xd6 exf4 42
 ♖e4 ♖b1+ 43 ♖e2 ♖h6 44 ♖xc5 bxc5 45
 ♖xc5 ♖g1 46 d4 ♖xg4 47 ♖b5 f3+ 48 ♖d3
 ♖c1 49 ♖b8 ♖xd4+ 50 ♖xd4 f2 51 ♖g8+

♟f5 52 ♟c3 f1 ♟ 0-1

schach 2.7 — xenarbor 1 e4 c5 2 ♞f3 ♞c6 3 d4 cxd4 4 ♞xd4 ♞f6 5 ♞c3 e5 6 ♞db5 d6 7 ♟g5 a6 8 ♟x6 ♟x6 9 ♞a3 b5 10 ♟d5 ♟d7 11 ♞e2 ♟g8 12 ♟d3 ♟e6 13 ♞b1 ♟a5† 14 ♟c3 ♟xc3† 15 ♞bx3 ♟e7 16 O-O-O ♟d7 17 ♞d5 ♟xd5 18 exd5 ♞a7 19 ♞g3 ♟c7 20 ♟d3 ♟h8 21 ♞f5 ♟f8 22 ♟he1 ♟g8 23 ♟e4 h6 24 ♟d3 ♟b7 25 ♟h3 ♟c8 26 ♞xh6 ♟xh6† 27 ♟xh6 ♟h8 28 ♟xf6 ♟xh2 29 ♟xd6 ♟c7 30 ♟f6 ♟d7 31 ♟f3 a5 32 ♟xe5 ♟h1† 33 ♟d2 ♞c8 34 ♟g4 ♟c7 35 d6 ♞xd6 36 ♟xd6 b4 37 ♟f3† ♟b8 38 ♟b5† ♟c8 39 ♟g4† ♟d7 40 ♟xd7 ♟h4 41 ♟c5† ♟b8 42 ♟e5 ♟h3 43 ♟b5† ♟c8 44 ♟xf7† 1-0

ostrich — chaos 1 e4 c5 2 c3 ♞f6 3 e5 ♞d5 4 ♟c4 ♞b6 5 ♟b3 ♞c6 6 ♞f3 d6 7 O-O dxe5 8 ♟e2 f6 9 ♞h4 g6 10 ♞a3 ♟d7 11 d3 e6 12 ♞f3 ♞a5 13 ♟d2 ♞xb3 14 axb3 ♟c6 15 ♞c4 ♞xc4 16 bxc4 ♟e7 17 ♟h6 ♟f7 18 ♞d2 g5 19 ♟h5† ♟g8 20 ♟h3 ♟d7 21 ♟fe1 a6 22 ♞b3 ♟d8 23 ♟e3 ♟f7 24 ♟h5† ♟g8 25 h3 ♟a4 26 ♞c1 ♟e8 27 ♟f3 ♟c6 28 ♟g4 f5 29 ♟e2 ♟g6 30 ♟xg5 ♟xg5 31 ♞b3 ♟xe3 32 fxe3 ♟xd3 33 ♞xc5 ♟xe3 34 ♟d2 ♟xh3 35 ♟d8† ♟f7 36 ♟c7† ♟e8 37 ♟c8† ♟e7 38 ♟c7† ♟e8 39 ♟c8† ♟f7 40 ♟c7† ♟f6 41 ♞d7† ♟xd7 42 ♟xd7 ♟g3 43 ♟f1 ♟e3† 44 ♟f2 ♟h4 45 ♟d2 ♟xd2 46 ♟xd2 ♟xc4 47 ♟d7 b5 48 ♟d6 a5 49 ♟b6 b4 0-1

merlin — intelligent software x 1 e4 c5 2 c3 d5 3 exd5 ♟xd5 4 d4 e6 5 ♞f3 ♞f6 6 ♟e2 ♞c6 7 O-O ♟d7 8 dxc5 ♟xc5 9 ♟c2 e5 10 ♟d1 ♟e6 11 b4 ♟b6 12 ♞g5 ♟e7 13 ♞d2 h6 14 ♞ge4 ♟f5 15 b5 ♞d8 16 ♞d6† ♟xd6 17 ♟xf5 ♟e6 18 ♟d3 e4 19 ♟g3 e3 20 fxe3 ♟xe3† 21 ♟xe3† ♟xe3† 22 ♟h1 ♟xd2 23 ♟xd2 ♞e4 24 ♟e1 O-O 25 ♟d4 ♞c5 26 ♟ad1 ♞de6 27 ♟d5 a5 28 ♟f3 ♟fc8 29 ♟g1 a4 30 ♟g3 a3 31 ♟d6 ♞g5 32 ♟g4 ♟e8 33 ♟d5 ♞ge4 34 ♟f4 ♞xc3 35 ♟f3 ♞xd1 36 ♟xd1 ♟a5 37 b6 ♟a6 38 ♟c7 ♟e6 39 ♟d8† ♟h7 40 ♟d5 ♟e1† 41 ♟f2 ♟e7 42 ♟f3 ♞e6 43 ♟e4† g6 44 ♟xb7 ♞xc7 45 ♟xa6 ♞xa6 46 ♟a8 ♞c5 47 ♟xa3 ♟g7 48 ♟a5 ♞b7 49 ♟b5 f5 50 ♟b3 ♟f6 51 a3 g5 52 ♟e3 ♟xe3† 53 ♟xe3 ♟e5 54 h4 adjudicated 0-1

Round 2

chaos — cray blitz 1 d4 d5 2 c4 e6 3 ♞c3 ♞f6 4 ♟g5 ♞bd7 5 e3 ♟b4 6 cxd5 exd5 7 ♟d3 c5 8 ♞ge2 c4 9 ♟c2 h6 10 ♟h4 ♟b6 11

O-O O-O 12 h3 ♟e8 13 ♟a4 ♟xc3 14 bxc3 ♞e4 15 ♟c2 ♟e6 16 ♞f4 ♟d6 17 f3 ♞g5 18 ♟fe1 a6 19 ♟d2 b5 20 ♟c2 ♞f6 21 ♟ab1 ♟d7 22 ♟b4 a5 23 ♟b2 b4 24 ♟h1 ♟ac8 25 ♟g3 bxc3 26 ♟xc3 ♟a6 27 ♟eb1 a4 28 ♟h4 ♟c7 29 ♟b6 ♟a8 30 ♟b4 ♟cc8 31 ♟c3 ♞gh7 32 ♟g3 a3 33 ♞e2 ♟c6 34 ♟d6 ♞d7 35 ♟b4 ♟e6 36 ♟f4 ♞hf8 37 ♟f5 ♟ee8 38 ♟d6 ♞e6 39 ♟g1 g6 40 ♟xe6 ♟xe6 41 ♟f4 g5 42 ♟g3 ♟ce8 43 ♟f2 ♞f6 44 ♞g3 ♟f8 45 ♞f5 ♞h5 46 g4 ♞g7 47 e4 ♞xf5 48 ♟xf5 ♟d6 49 ♟g3 ♟d7 50 ♟b8 ♟a4 51 exd5 ♟xd5 52 f6 ♟dd8 53 ♟8b4 ♟a7 54 ♟b6 ♟e2 55 ♟b8 ♟ee8 56 ♟8b6 ♟g8 57 ♟e5 ♟d7 58 ♟h2 ♟a8 59 ♟g2 ♟f5 60 ♟b5 ♟e6 61 ♟g1 ♟d3 62 d5 ♟d1† 63 ♟g2 ♟e2† 64 ♟g3 ♟d7 65 d6 ♟xb5 66 ♟xb5 ♟xa2 0-1

bebe — schach 2.7 1 e4 e5 2 ♞f3 ♞c6 3 ♟b5 a6 4 ♟a4 ♞f6 5 O-O ♟e7 6 ♟e1 b5 7 ♟b3 d6 8 c3 O-O 9 h3 ♞b8 10 d3 ♞bd7 11 ♞bd2 ♟b7 12 ♞f1 ♞c5 13 ♟c2 a5 14 ♞g3 c6 15 d4 ♞cd7 16 ♞f5 ♟e8 17 ♟g5 ♟f8 18 dxe5 ♞xe5 19 ♞xe5 ♟xe5 20 ♟f3 ♟b6 21 ♞h6† ♟xh6 22 ♟xf6 ♟g5 23 ♟xg5 hax5 24 ♟f5 ♟g7 25 ♟ad1 g4 26 ♟xg4 ♟c7 27 e5 d5 28 ♟f5 h6 29 e6 fxe6 30 ♟xe6 ♟c8 31 ♟h7† ♟f8 32 ♟de1 1-0

belle — nuchess 1 e4 c5 2 c3 e6 3 d4 cxd4 4 cxd4 d5 5 ♟d3 dxe4 6 ♟xe4 ♞f6 7 ♟c2 ♞c6 8 ♞f3 b6 9 O-O ♟a6 10 ♟e1 ♟b4 11 ♞c3 O-O 12 a3 ♟e7 13 ♟g5 ♟d6 14 b4 ♟c4 15 ♞e5 b5 16 ♟xf6 ♟xf6 17 ♞e4 ♟xe5 18 ♞xd6 ♟xd6 19 ♟d3 ♞e7 20 ♟xc4 bxc4 21 ♟c1 ♟ac8 22 ♟e2 c3 23 ♟a6 ♟f4 24 ♟c2 ♟a8 25 ♟b7 ♞d5 26 ♟ee2 ♟d2 27 ♟a6 g6 28 ♟e4 ♟fc8 29 ♟h1 ♟f8 30 ♟h4 ♟g5 31 ♟h3 ♟e7 32 ♟a4 ♟f6 33 ♟d3 ♟fd8 34 b5 ♟db8 35 ♟c1 a6 36 bxa6 ♟b6 37 a7 ♟b7 38 ♟a1 ♟axa7 39 ♟d1 ♟b2 40 f3 c2 41 ♟f1 ♟g5 42 g3 ♟ab7 43 f4 ♟b1 44 ♟f3 ♟f6 45 f5 ♟xd4 46 ♟xb1 cxb1 ♟ 0-1

novag x — awit 1 e4 c5 2 ♞f3 d6 3 d4 cxd4 4 ♞xd4 ♞f6 5 ♞c3 a6 6 ♟e2 e6 7 O-O ♟e7 8 f4 O-O 9 ♟h1 ♟d7 10 e5 dxe5 11 fxe5 ♞e8 12 ♟f3 ♟c7 13 ♟e2 ♟c5 14 ♞b3 ♟b4 15 ♟f2 f5 16 ♟d2 ♞c6 17 ♞d5 ♟xe5 18 ♞xb4 ♟xb2 19 ♞xc6 bxc6 20 ♟xc6 ♟xc6 21 ♟xe6† ♟h8 22 ♟xc6 ♞f6 23 ♟c3 ♟ac8 24 ♟xc8 ♟xa1† 25 ♞xa1 ♟xc8 26 ♟xf6 ♟b8 27 ♞b3 ♟xf6 28 ♟xf5 ♟e8 29 ♟g1 ♟c8 30 ♟xf6 ♟xc2 31 ♟xa6 ♟b2 32 ♟a7 h5 33 ♟f1 h4 34 ♟g1 ♟b1† 35 ♟f2 ♟g8 36 ♞d2 ♟b2 37 ♟e3 ♟f8 38 a4 ♟a2 39 a5 ♟a3† 40 ♟f2 ♟e8 41 a6 ♟d8 42 ♞c4 ♟a2† 43 ♟f3 h3 44

♖e3 ♗c8 45 ♗g3 ♗b8 46 ♖b7+ ♗a8 47
♗xh3 ♖a3 48 ♖e7 ♖xa6 49 g4 ♖h6+ 50 ♗g3
♖g6 1-0

phoenix — intelligent software x 1 d4 d5 2
♗g5 ♖c6 3 e3 h6 4 ♖h4 ♖f6 5 c4 ♗g4 6 f3
♗f5 7 cxd5 ♗xd5 8 ♖c3 ♗e6 9 e4 ♖xe4 10
fxe4 ♗xe4 11 ♖ge2 O-O-O 12 ♗b3 ♗g4 13
♗f2 e6 14 ♖g3 ♗b4 15 ♗e2 ♗xc3+ 16 bxc3
♗f4 17 O-O ♗d5 18 ♗a3 ♖d7 19 c4 ♗xg2
20 ♗xg2 ♗d6 21 ♗xd6 ♖xd6 22 ♖e4 ♖dd8
23 ♖ad1 f5 24 ♖c3 b6 25 d5 exd5 26 cxd5
♖e7 27 ♗a6+ ♗b8 28 ♗g3 ♖c8 29 ♖xf5
♖d6 30 ♗xd6 ♖xd6 31 ♖f7 ♖g6+ 32 ♗f3
♖f6+ 33 ♖xf6 gxf6 34 ♖e1 h5 35 ♖e7 ♖g8 36
♖b5 ♖c8 37 ♗xc8 ♗xc8 38 ♖xc7+ ♗d8 39
d6 ♗e8 40 ♖d4 1-0

xenarbor — merlin 1 d4 d5 2 c4 c6 3 ♖f3
♖f6 4 ♖c3 dxc4 5 a4 ♗f5 6 ♖e5 ♖bd7 7
♖xc4 ♗c7 8 g3 e5 9 dxe5 ♖xe5 10 ♗f4 ♖d8
11 ♗xd8+ ♗xd8 12 ♗xe5 ♗c2 13 ♗xf6 ♗xf6
14 ♖e3 ♗b3 15 ♗h3 ♗b4 16 ♖ed1 ♗xd1 17
♖xd1 ♗xc3+ 18 bxc3 ♗xc3+ 19 ♗f1 ♗b4 20
♗d7+ ♗e7 21 ♗f5 ♗xa4 22 ♗g2 ♗f6 23
♗b1 ♗e6 24 h4 a5 25 h5 ♗g4 26 f3 ♗c4 27
♗f2 b5 28 e3 ♗c3 29 h6 ♗b2+ 30 ♗g1
♗e2 31 hxg7 ♗xd1+ 32 ♗f2 ♗d2+ 33 ♗f1
♖g8 34 ♖h6+ f6 35 ♗f5+ ♗xf5 36 e4+ ♗e5
37 ♖h5+ ♗d4 38 e5 ♗e3 39 ♗g1 ♗f2+
time forfeit 0-1

fidelity x — ostrich 1 e4 d5 2 exd5 ♖f6 3
d4 ♖xd5 4 c4 ♖b6 5 ♖f3 ♗g4 6 ♗e2 ♖c6 7
d5 ♗xf3 8 ♗xf3 ♖e5 9 b3 g6 10 ♗b2 ♗g7 11
♖c3 O-O 12 ♗e2 ♖ed7 13 O-O ♗xc3 14
♗xc3 e5 15 ♗b4 ♖e8 16 c5 ♖c8 17 ♗c2 ♖f6
18 ♗b5 ♖e7 19 c6 ♖d6 20 cxb7 ♖b8 21 ♗c6
♗f8 22 ♗c5 ♗d8 23 ♗xa7 ♖xb7 24 ♗xb7
♖xb7 25 ♗c6 ♖d6 26 a4 ♖de8 27 ♖ad1
♖d7 28 ♖fe1 e4 29 ♗c5 ♗b8 30 f3 exf3 31
♖d3 ♗d8 32 gxf3 ♖g7 33 ♖e5 ♖ge8 34
♗f2 h5 35 ♗e1 ♖h7 36 ♖d2 ♖ef6 37 ♖de2
♗g7 38 ♗e7 ♗b8 39 b4 h4 40 h3 ♗a7 41
♗c5 ♗b8 42 a5 ♗c8 43 ♗e7 ♗g8 44 ♖d2
♗h8 45 ♖d4 ♗c8 46 ♖e2 g5 47 f4 ♗g6 48
fxg5 ♗xg5 49 ♖g4+ ♗h5 1-0

Round 3

cray blitz — bebe 1 e4 c5 2 d4 cxd4 3 ♖f3
♖c6 4 ♖xd4 ♖f6 5 ♖c3 d6 6 f4 ♗b6 7 ♖b3
e5 8 ♗e2 ♗g4 9 ♗b5 ♗xb5 10 ♗xb5 a6 11
♗xc6+ bxc6 12 O-O ♖b8 13 ♖a5 ♗d7 14
♖d1 ♖g4 15 h3 ♖f6 16 ♖c4 ♖b4 17 b3 d5
18 exd5 ♗c5+ 19 ♗h2 ♗d4 20 dxc6 ♗xh3 21
♖d6+ ♗e7 22 ♗xh3 ♗xd6 23 ♗a3 a5 24

♗xb4+ axb4 25 ♖b5+ ♗xc6 26 ♖xd4+ exd4
27 ♖xd4 ♖d5 28 a3 bxa3 29 c4 ♖b4 30 ♖xa3
♖e8 31 ♖a7 ♖e3+ 32 ♗h4 ♗c5 33 ♖d8
♖xb3 34 ♖c8+ ♗d4 35 ♖xf7 g6 36 ♖xh7 ♖e3
37 g3 1-0

nuchess — phoenix 1 f4 d5 2 ♖f3 ♗g4 3 e3
♖d7 4 ♗e2 e6 5 O-O ♗d6 6 c4 ♖g6 7 ♖c3
dxc4 8 ♗xc4 ♖b6 9 ♗e2 O-O 10 ♗b3 ♖fd5
11 d4 ♖xc3 12 bxc3 c5 13 ♗d2 ♗c7 14 a4 c4
15 ♗h5 a6 16 ♗b2 ♖d5 17 h3 ♗f5 18 ♖e5
♗xe5 19 fxe5 f6 20 ♗a2 fxe5 21 ♗xc4 ♗b6
22 a5 ♗d6 23 ♗b3 exd4 24 cxd4 ♗e4 25
♗d3 ♗xd3 26 ♗xd3 ♖ad8 27 ♖xf8+ ♖xf8 28
♖f1 ♖f6 29 ♗b3 ♗d5 30 ♗b2 ♖c8 31 ♖c1
♖c6 32 ♗a3 e5 33 ♗b4 ♖xc1+ 34 ♗xc1 exd4
35 exd4 ♗b5 36 ♗a3 ♗xb4 37 ♗xb4 ♗f7 38
♗f2 g5 39 ♗e2 ♖d5 40 ♗d2 h6 41 ♗d3
♗e6 42 ♗c4 ♗d6 43 h4 g4 44 ♗xh6 b5+
45 axb6 ♖xb6+ 46 ♗d3 a5 47 ♗g5 a4 48
♗xh4 ♖d5 49 ♗g5 a3 50 ♗c2 ♖b4+ 51 ♗b1
♗d5 52 ♗e7 a2+ 53 ♗b2 ♖c2 54 ♗xa2 ♖e3
55 g3 1/2-1/2

schach 2.7 — novag x 1 e4 e5 2 ♖f3 ♖c6 3
♗b5 a6 4 ♗xc6 dxc6 5 ♖c3 f6 6 d4 exd4 7
♗xd4 ♗d6 8 O-O ♖e7 9 ♗c4 b5 10 ♗b3
c5 11 ♖d5 c4 12 ♗c3 O-O 13 ♖d1 ♗h8 14
♗f4 ♖xd5 15 ♖xd5 ♗b7 16 ♖d4 ♗e7 17
♗xd6 cxd6 18 ♖ad1 ♗xe4 19 ♖xd6 ♖ad8 20
♖6d4 ♗b7 21 ♖e1 ♗f7 22 ♗a5 ♖xd4 23
♖xd4 ♗d5 24 ♖f3 ♗f5 25 ♗a3 ♗g8 26
♖d4 ♗g4 27 ♖f3 b4 28 ♗e3 ♗xf3 29 ♗xf3
♗xf3 30 gxf3 a5 31 ♖e4 ♖c8 32 c3 ♗f7 33
♗f1 g6 34 ♗g2 bxc3 35 bxc3 h6 36 a4 ♖c6
37 f4 ♖c5 38 h4 ♖c6 39 f3 ♖c7 40 ♗f2 ♖c8
41 ♗e2 ♖c7 1/2-1/2

merlin — chaos 1 e4 c5 2 c3 ♖f6 3 e5 ♖d5
4 d4 cxd4 5 ♖f3 ♖c6 6 cxd4 d6 7 ♗c4 ♖b6
8 ♗b5 e6 9 O-O ♗e7 10 ♖c3 d5 11 ♗c2
♗d7 12 ♗f4 ♖c8 13 ♖ac1 ♖xe5 14 ♗xe5
♗xb5 15 ♗xg7 ♗xf1 16 ♖xf1 ♖g8 17 ♗xh7
♗d7 18 ♖e5+ ♗c7 19 ♖b5+ ♗b8 20 ♖x7
♖xg7 21 ♗xg7 ♗d7 22 ♗g3+ ♗a8 23 ♖c3
♗b4 24 ♖e5 ♗c7 25 ♗h3 ♗xc3 26 ♖c1
♗xd4 27 ♖xc7 ♖xc7 28 ♖d3 e5 29 ♗g3 ♖c8
30 ♗g7 ♗xb2 31 ♗f1 ♗d4 32 ♖xe5 ♖c1+ 33
♗e2 a6 34 ♗g8+ ♖c8 35 ♗e6 ♗xe5 36
♗xe5 ♖c2+ 37 ♗f3 ♖xa2 38 ♗d6 ♗a7 39
h4 ♖c2 40 g4 a5 41 h5 ♖c3+ 42 ♗f4 a4 43 f3
a3 44 ♗e5 ♖c4+ 45 ♗f5 ♖a4 46 ♗a1 ♖c4
47 h6 ♖e3+ 48 ♗e6 ♖c2 49 ♗a2 ♖a6+ 50
♗d7 ♖b4 51 ♗f2+ ♗a8 52 ♗c5 a2 53
♗xb4 a1 ♗ 54 ♗f8+ ♗a7 55 h7 ♗a4+ 56
♗d8 ♗a5+ 57 ♗e8 ♗c7 58 ♗f7 ♗e5+ 59
♗f8 ♖f6 60 h8 ♖ ♗g5 61 ♗xf6 ♗xf6+ 62

△f7 ♀x3 63 g5 ♀f5 64 ♀g8 d4 0-1

intelligent software x — fidelity x 1 △f3 c5 2 g3 △c6 3 △c3 d5 + d3 d4 5 △e4 e5 6 △g2 f5 7 △ed2 △f6 8 △c4 e4 9 △fe5 △xe5 10 △xe5 ♀a5+ 11 △d2 ♀b6 12 △c4 ♀a6 13 e3 △e6 14 ♀e2 △e7 15 O-O O-O 16 a4 ♀c6 17 dx4 fx4 18 f4 ♀a6 19 b3 △d6 20 △fb1 △f5 21 exd4 cx4 22 a5 △c5 23 ♀h1 e3 24 △e1 △d7 25 ♀d3 △ad8 26 △e5 △b5 27 ♀f5 △d5 28 ♀h3 △fe8 29 b4 △f8 30 △f3 △f6 31 c4 △xc4 32 △xc4 ♀xc4 33 △xb7 d3 34 b5 d2 35 △c6 dx1△ 36 △xe1 △e7 37 △ac1 ♀b4 38 a6 △d2 39 ♀f5 ♀b2 40 ♀h3 △g4 41 △d5+ ♀h8 42 ♀g1 △xh2 43 ♀g2 ♀t2+ 44 ♀x2 ex2+ 45 ♀f1 fx1△+ 46 △xe1 △f2+ 47 ♀g1 △xe1# 0-1

awit — belle 1 c4 e6 2 △c3 d5 3 cx5 exd5 + d4 △e7 5 e3 △f6 6 △d3 O-O 7 △f3 b6 8 O-O △b7 9 △e1 △e4 10 △e5 f5 11 ♀b3 a5 12 a3 △xc3 13 ♀xc3 △b4 14 axb4 axb4 15 △xa8 bxc3 16 △a3 cx2 17 △xb2 △d7 18 △a7 △xe5 19 dx5 ♀b8 20 △eal c6 21 h3 g6 22 △7a4 △c8 23 △c3 b5 24 △b4 ♀c7 25 g4 fxg4 26 hxg4 △a8 27 △xa8+ △xa8 28 f4 ♀a7 29 △d2 ♀a2 30 △e1 ♀a3 31 △xb5 cx5 32 △xb5 ♀xe3+ 33 △f2 ♀c1+ 34 ♀h2 ♀xf4+ 35 △g3 ♀d2+ 36 ♀h3 ♀h6+ 37 ♀g2 d4+ 38 ♀f1 ♀c1+ 39 ♀e2 ♀c4+ 40 ♀f2 ♀xb5 0-1

ostrich — xenarbor 1 e4 c5 2 c3 △f6 3 e5 △d5 4 △c4 e6 5 △xd5 exd5 6 d4 ♀b6 7 dx5 △xc5 8 ♀d2 ♀e6 9 △f3 h6 10 b4 △e7 11 O-O O-O 12 △d1 △c6 13 ♀xd5 ♀xd5 14 △xd5 f5 15 b5 △d8 16 △a3 △xa3 17 △xa3 △e6 18 △c4 △c7 19 △c5 △e8 20 △d6 △xd6 21 exd6 a6 22 b6 △f6 23 △e1 ♀f8 24 △d5 a5 25 △ee5 g6 26 a4 f4 27 △d2 ♀g7 28 △c4 f3 29 g3 △e6 30 △xe6 dx6 31 △c5 ♀f7 32 △e5+ ♀e8 33 △xc8+ △xc8 34 d7+ ♀d8 35 dx8♀+ ♀xc8 36 h4 g5 37 hxg5 hxg5 38 ♀h2 ♀d8 39 g4 ♀e7 40 △xf3 ♀f6 41 ♀g3 e5 42 △d2 ♀e6 43 △b3 ♀d5 44 △xa5 ♀c5 45 △xb7+ ♀xb6 46 △d6 ♀a5 47 △e4 ♀xa4 48 △xg5 ♀b3 49 △e4 ♀b2 50 g5 ♀b3 51 g6 ♀c4 52 ♀g4 △d3 53 ♀f5 1-0

Round 4

nuchess — cray blitz 1 c4 e5 2 △c3 △b4 3 a3 △xc3 4 dx3 △e7 5 g3 d5 6 cx5 ♀xd5 7 ♀xd5 △xd5 8 △g2 △b6 9 a4 O-O 10 a5 △c4 11 △a4 △d6 12 a6 △d7 13 △e3 △b6 14 △h4 △d8 15 axb7 △xb7 16 △xb7 △xb7 17 △f3 △d5 18 c4 △a5 19 O-O △a2 20 △d1

△xb2 21 c5 △c8 22 △d7 f6 23 △g4 g6 24 △h4 h5 25 △xc7 △d8 26 △a4 △b7 27 △xb7 △xb7 28 △a6 ♀f7 29 △d2 △d8 30 △e4 f5 31 △g5+ ♀g7 32 △f3 △f7 33 △xe5 △xe5 34 △d4 ♀g8 35 △xc5 △e7 36 e3 ♀f7 37 △f6+ ♀g8 38 ♀g2 △c8 39 ♀f3 △e8 40 △a6 △a8 41 ♀f4 ♀f7 42 ♀g5 △g8 43 △f6+ ♀e8 44 △d6 △c8 45 △xg6 △xg6+ 46 ♀xg6 △xd6 47 cx6 a5 48 g4 hxg4 49 ♀xf5 a4 50 e4 a3 51 ♀xg4 a2 52 e5 a1♀ 53 f4 ♀g1+ 54 ♀f5 ♀xh2 55 e6 ♀c2+ 0-1

bebe — novag x 1 e4 e5 2 △f3 △c6 3 △b5 a6 4 △a4 △f6 5 O-O b5 6 △b3 d6 7 △g5 d5 8 exd5 △d4 9 d6 △xb3 10 dx7 ♀xc7 11 axb3 h6 12 △f3 e4 13 △e1 △e7 14 △c3 exf3 15 △xb5 ♀c5 16 ♀xf3 ♀xb5 17 ♀xa8 ♀b7 18 ♀xb7 △xb7 19 d4 ♀d7 20 c4 △b4 21 △e2 △d8 22 d5 △xd5 23 cx5 △xd5 24 △xa6 △xb3 25 △e4 △c5 26 △e3 ♀c7 27 △a1 △d5 28 △f4+ ♀c6 29 △ea4 △e6 30 △e5 △d2 31 △xg7 △xf2+ 32 ♀h1 △d5 33 △c3 △c2 34 △a6+ ♀c7 35 △6a5 ♀c6 36 △a6+ ♀c7 37 △6a5 ♀c6 38 △a8 △b6 39 △g8 f5 40 △g6+ ♀b5 41 △d1 △e4 42 △d2 △xb2 43 △xh6 f4 44 △g5+ ♀c6 45 △c1+ ♀d6 46 △g7 △f2 47 △d1+ ♀c6 48 △e5 △e3 49 △g4 △c2 50 △a1 ♀d5 51 △b8 f3 52 gx3 △xf3 53 △e1+ ♀e6 54 h4 △f5 55 △ga4 ♀f7 56 ♀g2 △f2+ 57 ♀g3 △f1 58 △f4 △f2+ 59 ♀g2 △d3 60 △d5 △e2 61 △d7+ ♀g6 62 h5+ ♀xh5 63 △d2 △b6 64 △xe2 △g1+ 65 ♀h2 △b1 66 △g2 △b5 67 △a6 △f5 68 ♀g3 △f6 1-0

chaos — phoenix 1 d4 c5 2 d5 e5 3 e4 d6 4 c4 g6 5 △c3 △g7 6 △d3 △e7 7 △ge2 O-O 8 △d2 f5 9 f3 △a6 10 △g5 △b4 11 △b1 h6 12 △h4 g5 13 △f2 fx4 14 △xe4 △f5 15 O-O ♀d7 16 a3 △a6 17 ♀b3 △c7 18 △xf5 △xf5 19 ♀xb7 △fb8 20 ♀c6 ♀xc6 21 dx6 △xb2 22 △ab1 △ab8 23 △g3 △xb1 24 △xb1 △xb1+ 25 △xb1 △e7 26 △e4 △e8 27 △xd6 △xd6 28 △xc5 △ec8 29 △d2 ♀f7 30 ♀f2 ♀e6 31 ♀e3 △xc4+ 32 △xc4 ♀d5 33 △b4 ♀xc4 34 ♀e4 ♀b5 35 c7 ♀b6 36 ♀f5 a5 37 △c3 ♀xc7 38 ♀g6 △f8 39 △xa5+ ♀c6 40 △b4 △xb4 41 axb4 △e7+ 42 ♀xh6 g4 43 ♀g5 gx3 44 gx3 ♀b5 45 ♀f6 △d5+ 46 ♀xe5 △xb4 47 h4 △d3+ 48 ♀f5 △c5 49 f4 ♀c6 50 h5 △d7 51 h6 △f8 52 ♀f6 ♀d7 53 ♀f7 △h7 54 ♀g7 ♀e7 55 ♀xh7 ♀f7 56 f5 ♀f6 57 ♀g8 1-0

fidelity x — schach 2.7 1 e4 e5 2 △c4 △f6 3 d3 c6 4 △f3 d5 5 △b3 △d6 6 △c3 △e6 7 △g5 ♀a5 8 O-O △bd7 9 exd5 △xd5 10 △e4 △c7 11 △d2 ♀a6 12 △fg5 O-O 13

♖e6 fxe6 14 ♗g4 ♠a8 15 ♗h3 ♕d8 16 a4
 ♜c7 17 ♜d6 ♠e7 18 ♕c4 ♗b6 19 ♜c8
 ♗xb2 20 ♠a2 ♗d4 21 c3 ♗c5 22 ♕e3 ♗a5
 23 ♜xe7+ ♕xe7 24 ♕xe6+ ♜xe6 25 ♗xe6+
 ♠f7 26 ♗xd7 ♕f8 27 ♗h3 ♗xc3 28 ♕xa7
 ♗b3 29 ♠aa1 ♗b4 30 ♗e6 ♗a5 31 ♕b8
 ♗d8 32 ♕xe5 ♗xd3 33 ♠ab1 ♗a6 34 ♠b3
 c5 35 ♠b6 ♗a8 36 ♠fb1 ♕e7 37 ♠xb7 ♗d8
 38 ♠xe7 ♗xe7 39 ♠b8+ 1-0

belle — merlin 1 e4 e5 2 ♕c4 ♜f6 3 d4
 exd4 4 ♜f3 d5 5 exd5 ♕b4+ 6 c3 ♗e7+ 7
 ♕e2 dxc3 8 bxc3 ♕c5 9 O-O O-O 10 c4
 ♕g4 11 ♜c3 ♜a6 12 h3 ♕f5 13 ♜d4 ♕g6 14
 ♕e3 ♜b4 15 a3 ♜a6 16 ♗c1 ♠ad8 17 ♠d1
 ♕b6 18 ♕d3 ♕xd3 19 ♠xd3 ♜e4 20 ♜f5
 ♗e5 21 ♕xb6 axb6 22 ♜xe4 ♗xf5 23 ♗e1
 ♠a8 24 ♠b1 ♠fb8 25 ♠e3 ♠c8 26 ♠bb3 ♗f4
 27 ♠g3 ♗e5 28 ♠be3 ♗d4 29 ♗d2 ♗xd2
 30 ♜xd2 ♜c5 31 ♠e7 ♗f8 32 ♠e1 ♠a4 33
 ♠c3 ♠ca8 34 ♜b1 f6 35 f3 f5 36 g4 f4 37
 ♗g2 ♗f7 38 h4 ♠e8 39 ♠xe8 ♗xe8 40 ♜d2
 ♗e7 41 ♜e4 ♜xe4 42 fxe4 ♗d6 43 ♗f2
 ♗e5 44 ♗f3 ♠a8 45 ♠d3 ♠a5 46 ♠b3 g6 47
 g5 ♠a4 48 ♠c3 ♠a8 49 ♠b3 ♠d8 50 ♠b2
 ♠e8 51 ♠b4 ♠h8 52 ♠b5 ♠f8 53 ♠b1 ♠c8 54
 ♠b2 ♠d8 55 ♠b4 ♠c8 56 ♠a4 c6 57 dxc6
 bxc6 58 ♠a7 ♠h8 59 a4 ♗d4 60 ♠b7 ♗c5 61
 ♗xf4 ♠f8+ 62 ♗e3 ♠h8 63 ♠c7 h6 64 ♠g7
 hxg5 65 hxg5 ♠a8 66 ♠xg6 ♠xa4 67 ♠f6
 ♠xc4 68 ♠f5+ ♗d6 69 g6 ♠c3+ 70 ♗f4 ♠c1
 71 g7 ♠f1+ 72 ♗g5 ♠g1+ 73 ♗f6 ♠xg7 74
 ♗xg7 ♗e6 75 ♠f6+ 1-0

intelligent software x — ostrich 1 ♜f3 e6 2
 d4 d5 3 ♕f4 ♕d6 4 ♕xd6 ♗xd6 5 ♜c3 ♜c6
 6 e3 a6 7 ♕e2 ♜f6 8 a3 O-O 9 ♗d3 ♠b8 10
 O-O ♕d7 11 ♠fd1 b5 12 ♗f1 ♠be8 13 h3
 e5 14 dxe5 ♜xe5 15 ♜xe5 ♠xe5 16 f4 ♠e6
 17 ♜xd5 ♜xd5 18 ♗xd5 ♠xe3 19 ♗xd6
 cxd6 20 ♠xd6 ♠fe8 21 ♕d3 ♕c8 22 a4 bxa4
 23 ♠xa4 ♠3e6 24 ♠xe6 ♕xe6 25 ♠xa6 g6 26
 c3 ♠b8 27 b4 ♠c8 28 ♠a3 ♕c4 29 ♕xc4 ♠xc4
 30 g3 ♗g7 31 ♗e2 ♠e4+ 32 ♗d3 ♠e1 33 c4
 ♠g1 34 ♗d4 ♠g2 35 b5 ♠b2 36 ♗e5 ♠c2 37
 ♗d5 ♠b2 38 g4 ♗f6 39 ♠a6+ ♗g7 40 b6
 ♠b3 41 h4 h5 42 g5 ♠d3+ 43 ♗c5 1-0

xenarbor — awit 1 d4 ♜f6 2 c4 g6 3 ♜c3
 d5 4 ♕f4 ♕g7 5 e3 c6 6 cxd5 ♜xd5 7 ♜xd5
 ♗xd5 8 ♜f3 ♕f5 9 ♕e2 O-O 10 h3 ♠d8 11
 ♕c7 ♠c8 12 ♕xb8 ♠cx8 13 O-O ♠d8 14
 ♗b3 ♗xb3 15 axb3 ♕f6 16 ♠fc1 a5 17 ♜d2
 ♕g5 18 ♠c5 ♠d5 19 ♠xd5 cxd5 20 b4 ♠c8
 21 f4 ♕h4 22 ♜f3 ♕g3 23 ♕b5 axb4 24 ♜e1
 ♕e4 25 ♕d7 ♠c7 26 ♕g4 ♕xe1 27 ♠xe1 h5
 28 ♕f3 ♕xf3 29 gxg3 ♠c2 30 b3 ♠b2 31 ♠c1

♠xb3 32 ♠c7 ♠xe3 33 ♠xb7 ♠xf3 34 ♠b8+
 ♗g7 35 ♠xb4 ♠xh3 36 ♗g2 ♠d3 37 ♗f2
 ♗f6 38 ♗e2 ♠a3 39 ♠b2 ♗f5 40 ♗f1 ♠a4
 41 ♠e2 ♠xd4 42 ♠e5+ ♗e4 43 ♠xe7 ♠x4+
 44 ♗g1 f5 45 ♠e2 g5 46 ♠d2 d4 47 ♠c2 h4
 48 ♗h2 ♗f3 49 ♗g1 ♗e3 50 ♠c7 d3 51
 ♠c3 ♗e2 0-1

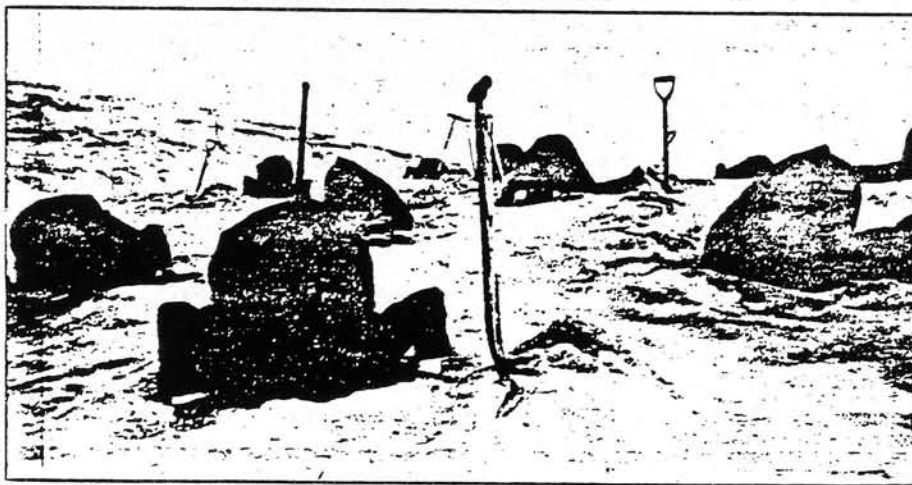
1985 TOURNAMENT RULES

1. Participants are required to attend a meeting at 12 noon on Sunday, October 13, for the purpose of officially registering for the tournament. Rules will be finalized at the meeting. The Tournament Director has the right to choose an alternate to replace any entry which fails to appear.
2. Each entry is a computing system. A listing of all programs running on that system should be available on demand to the Tournament Director. Any computing system can be used. Permission to change from one system to another may be granted by the Tournament Director.
3. The tournament is a four round Swiss style tournament. The first and second rounds will be played Sunday, October 13th, at 1 PM and 7:30 PM. The third round is scheduled for Monday, October 14th, at 7:30 PM, and the fourth round on Tuesday, October 15th at 7:30 PM.
4. Trophies will be awarded to the first three finishers. The order of finish will be determined by the total number of points earned. If two teams have an equal number of points, the sum of the opponents' points will be used as a second factor. If a tie still remains, the opponents' opponents' points will be used as a third factor.
5. Unless otherwise specified, rules of play are identical to those of regular "human" tournament play. If a point is in question, the Tournament Director has the authority to make the final decision. Games are played at a speed of 40 moves per player in the first two hours and then 20 moves every hour thereafter. The Tournament Director has the right to adjudicate a game after five hours of total clock time. The adjudication will be made on the premise that perfect chess will be played by both sides from the final position.
6. A team may request the Tournament Director to stop its clock at most twice during the course of a game because of technical problems. The clock must be restarted each time after at most 15 minutes. If a team can clearly establish that its problems are not in its own computing system but in the telephone network or in the communication facilities provided by the Tournament Committee, the Tournament Director can permit additional time-outs.
7. There is no manual adjustment of program parameters during the course of a game. In the case of failures, the program parameters must be reset to their original settings if it is at all possible. Information regarding castling status, en passant status, etc., may be typed in after a failure. If at any time during the course of a game a computer asks for the time remaining on either its or its opponent's clock, this information may be provided. The computer must initiate the request for information.

1985 TOURNAMENT RULES (continued)

8. Each game is officially played on a chess board provided by the Tournament Committee. An electronic chess board used by one side can be substituted if the other side is agreeable. The official clock is provided by the Tournament Committee. If both sides agree, another clock can be used.
9. At the end of each game, each team is required to turn in a game listing to the Tournament Director.

Counteract the ostrich factor



There's no point burying your head to escape

COMPUTER CHESS LITERATURE

Books:

- Bell, A., (1978) The Machine Plays Chess?, Pergamon Press, Oxford.
- Botvinnik, M. M., (1970) Computers, Chess, and Long Range Planning, Springer-Verlag, New York.
- Clarke, M. R. B., (1977,1980,1982) Editor, Advances in Computer Chess I,II, and III, Edinburgh University Press and Pergamon Press.
- Frey, P., (1977,1983) Editor, Chess Skill in Man and Machine, Springer-Verlag, New York.
- Hayes, J. and Levy, D., (1976) The World Computer Chess Championship, University of Edinburgh Press.
- Levy, D., (1976) 1975 U.S. Computer Chess Championship, Computer Science Press, Potomac Maryland.
- Levy, D., (1976) Chess and Computers, Computer Science Press, Potomac, Maryland.
- Levy, D. (1976) 1976 Computer Chess Championship, Computer Science Press, Potomac, Maryland.
- Levy, D. and Newborn, M., (1980) More Chess and Computers, Computer Science Press, Potomac, Maryland.
- Levy, D. and Newborn, M., (1981) All About Chess and Computers, Computer Science Press, Potomac, Maryland.
- Newborn, M., (1975) Computer Chess, Academic Press, New York.
- Newborn, M., (1979) "Recent Progress in Computer Chess", Advances in Computers, Volume 19, Academic Press, New York.
- Spracklen, D. and Spracklen, K., SARGON: A Computer Chess Program, Hayden Book Company, Rochelle Park, New Jersey (1978)

Magazines:

In recent years, articles on computer chess have appeared in many magazines and technical journals including Abacus, Sports Illustrated, Scientific American, Science Magazine, Nature, The Mathematical Intelligencer, Chess Life, ACM's SIGART Newsletter, The Journal of Artificial Intelligence, Graduate Engineer, Discoverer, and many others.

THE ACM COMPUTER CHESS COMMITTEE

In 1979, the ACM established the Computer Chess Committee as a standing committee on the Management Board responsible for organizing computer chess events within the ACM. In 1984, the Committee was transferred to the Management Board. The Committee's main responsibility is organizing the annual ACM North American Computer Chess Championship. This event has been held annually since 1970. Currently, the Committee Members are Monty Newborn (Chairman), Ken Thompson, Tony Marsland, Kathe Spracklen, and Hans Berliner. Ben Mittman, former President of the ICCA and "Manager" of the Northwestern University chess program, CHESS 4.9 (and other versions) was a member of the Committee until several months ago when he resigned and was replaced by Hans Berliner.

THE INTERNATIONAL COMPUTER CHESS ASSOCIATION

Established at the Second World Championship in Toronto in 1977, this international organization has about seven hundred members. It was formed by the programmers and is an organization primarily intended to serve them. The ICCA Journal publishes technical and non-technical articles on computer chess and is the foremost publication of its kind. Authors of articles should send them to Jaap van den Herik, Delft University of Tech., Dept. of Math and Informatics, 2628 BL Delft, Neth. The Journal publishes four times a year. Individuals interested in becoming members should write to William Blancjard, 360/253 Blackthorn Lane, Warrenville, Illinois 60555, USA. Dues are \$10 plus a \$5 surcharge annually. Officers are Monty Newborn, President, Johann Enroth, Vice President, and William Blanchard, Secretary/Treasurer.

1985 Computer Chess Turing Test

Can one tell, just by examining the quality of the chess game, whether a chess player is computer or human? That is the question we will ask during the Monday, October 14 Computer Chess Turing Test. This will be a 'hidden room' test, where the information coming from the hidden room will be used to detect the identity, computer or human, of a chess player. Some efforts will be made to hide computer and human traits which we don't want examined, such as timing of the moves and the rapid typewriter response of the computer. 1985 is our first year at such a test. We are not conducting a rigorous scientific experiment, but it could be used to lay a foundation for one.

We will run eight tests in parallel. Alex Fishbein will play eight opponents, all rated below master level. Moves will be transmitted back and forth using computer terminals.

There will be efforts to hide some properties of the chess playing computers. All chess moves made in the hidden room will be passed to a computer terminal operator, who will in turn send the move to the master in a standardized chess notation (White's opening move N-KB3 would be transmitted as "G1 F3".) Special efforts will be made to assure accuracy of chess moves.

We hope to use only the qualities of the chess moves to differentiate between computer and human opponents. The hidden room players will be instructed to play their normal chess style, and not attempt to 'emulate' how a computer might perform.

There will be audience participation. A prize will be awarded to the first audience member who correctly identifies all eight hidden-room opponents within a limited number of guesses. The following is the test entry form.

Turing Test Selection Form

Name	phone
BOARD OPPONENT (circle one)	BOARD OPPONENT (circle one)
Board 1 computer human	Board 5 computer human
Board 2 computer human	Board 6 computer human
Board 3 computer human	Board 7 computer human
Board 4 computer human	Board 8 computer human

