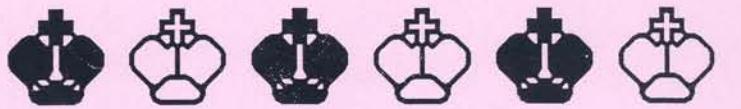


The ACM's Eighteenth North American Computer Chess Championship



Dallas, Texas
October 25-27, 1987

A Special Event at the ACM-IEEE Computer Society's FJCC

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Welcome and Overview

I would like to welcome you all, participants and spectators, to the ACM's 18th North American Computer Chess Championship. Fourteen entries will compete over four rounds of play for the first place prize of a beautiful trophy and \$2000 in cash. Every year the programs improve, and this year is no exception. The current world champion program Cray Blitz is returning to the ACM annual event after being unable to attend last year when Bob Hyatt, the program's chief, was unable to make arrangements for a Cray computer. This year Cray Blitz will be running on a Cray XMP 4/8 from Mendota Heights, Minnesota. Last year's winner, Belle, is likely to give Cray Blitz a real challenge for the title. Belle decisively won the title last year, winning all four of its games. In addition to this strong duo, there will be several other very strong programs including Bebe, Sun Phoenix, Lachex, Novag X, and Chiptest-w. There are also several newcomers, GNU Chess, BP, and Greco, and several veteran performers, Cyrus 68K, Ostrich, and Recom.

The level of play by the best programs is clearly at the Master level, placing the best programs among the top 500-1000 players in the USA. The opening books are getting bigger every year and the hardware faster. It is interesting to note that seven of the programs were written in part in the language C, possibly an interesting new trend. It is also interesting to observe that all the participants are using either assembly language or C, although Cray Blitz and Lachex have parts written in Fortran. There are three programs using special purpose circuitry and four programs using multiprocessing systems, continuing these two trends that began several years ago.

Late Tuesday evening when the order of finish becomes clear, we will have a Wine and Cheese Party for the participants. Trophies will be awarded to the first three finishers (as well as a check to the winner for \$2000). We will also provide a trophy to the best program executing on a computing system at the site that weighs under 25 kilograms.

A Technical Session will be held on Tuesday, October 27th from 3:00 PM until 4:30 PM. Tony Marsland will serve as moderator, and a number of the participants will be on the panel. Short presentations will be made with a theme of trying to find out how well theory has turned out in practice.

The ACM's Computer Chess Committee will meet on Monday, October 26th and all are invited to attend this organizational meeting. It is here that we will make final decisions on next year's event and subsequent ones.

Mike Valvo will serve as Tournament Director. Mike has served for a number of years, taking over from David Levy when the latter decided to compete. Mike is one of the top players in the US and is especially strong at blindfold chess. Every year, though, it becomes more difficult for him to understand the elaborate minds of the participants, but his running commentary on the games is a real treat.

Roger Johnson, of the Dallas Chess Club, helped with the local arrangements, and I would like to thank him and the other member of the club that helped us out. This is the second year running that they have assisted us. The city of Dallas has taken the lead as the host city for the ACM tournaments — there have been three here, and each time the Dallas Chess Club helped us out.

To the spectators, we all hope you enjoy the games. You should feel free to approach Mike Valvo with questions about the programs and suggestions for moves. The computers won't mind a noisy audience one bit!

Monty Newborn Chairman, ACM CCC
Hans Berliner, Tony Marsland, Kathe Spracklen,
and Ken Thompson, Members of the ACM CCC

Important Times and Places

1. Schedule of Rounds (games are in the Wedgewood Room)

Round 1:	1:00 PM	Sunday	October 25
Round 2:	7:00 PM	Sunday	October 25
Round 3:	7:30 PM	Monday	October 26
Round 4:	7:30 PM	Tuesday	October 27

3. **Awards Presentation:** Tuesday evening, October 27th at 11:30 PM, or as soon as the winners of the awards are determined.
4. **Technical Session:** Theory and Practice in Computer Chess, Tuesday, October 27th at 3:00-4:30 in the Wedgewood Room. Moderator: Tony Marsland.
5. **ACM Computer Chess Committee Meeting:** 12:45-2:00 PM, Monday, October 26th.
6. **ICCA Meeting:** 5:00-6:00 PM, Monday, October 26th.

Tournament Director: Mike Valvo

Organizing Committee: Roger Johnson, Monty Newborn

Admissions Committee: Ken Thompson, Hans Berliner, Tony Marsland, Monty Newborn, Kathe Sparcklen.

The ACM Computer Chess Committee

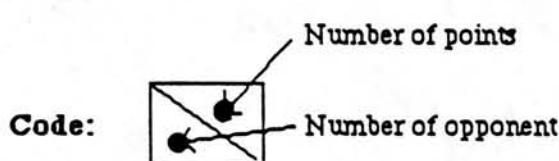
In 1979, the ACM established the Computer Chess Committee as a standing committee on the Management Board. The committee was given the responsibility of organizing computer chess activities with the ACM. In 1984, the committee was transferred to the Conferences Board where it is today. The main function of the committee is to organize the ACM's Annual North American Computer Chess Championship. The tournament has been held annually since 1970. The current committee members are Monty Newborn, Chairman, Hans Berliner, Tony Marsland, Kathe Sparcklen, and Ken Thompson.

The International Computer Chess Association

Established at the Second World Computer Chess Championship in Toronto in 1977, this international association has about seven hundred members from all over the world. The ICCA Journal is the leading publication on the subject of computer chess, and one day may be the world's leading chess publication. It is published four time a year. Authors of articles should send them to Jaap van den Herik, Department of Mathematics and Informatics, Delft University of Technology, 2628 BL Delft, The Netherlands. For information on membership, write to Jonathan Schaeffer, Department of Computing Science, University of Alberta, Edmonton, Alberta, Canada T6G 2H1. Dues are \$20 annually. Current officers are David Levy, President, Tony Marsland, Vice President, and Jonathan Schaeffer, Secretary/Treasurer.

Score Table
ACM's 18th North American Computer Chess Championship

Team	Rounds				Total Points	Final Place
	1	2	3	4		
1 Bebe						
2 Belle						
3 BP						
4 Chiptest-w						
5 Cray Blitz						
6 Cyrus 68K						
7 GNU Chess						
8 Greco						
9 Lachex						
10 Novag X						
11 Ostrich						
12 Recom						
13 Sun Phoenix						
14 Waycool						



Information on Participants

Bebe	Tony Scherzer and Linda Scherzer, SYS-10 Inc., 2117 Stonington Avenue, Hoffman Estates, Illinois 60195.
Belle	Ken Thompson and Joe Condon, c/o KT, Room 2C519, Bell Laboratories, Murray Hill, New Jersey 07974.
BP	Robert Cullum, P. O. Box 111, Prospect Heights, Illinois, 60070.
Chiptest-w	Thomas Anantharamam, Feng-hsiung Hsu, and Murray Campbell, c/o FH, Department of Computer Science, Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213.
Cray Blitz	Robert Hyatt, Harry Nelson, Burt Gower, c/o RH, 1020 Gordon Woods Drive, Birmingham, Alabama 35244.
Cyrus 68K	Mark Taylor and David Levy, c/o DL, Intelligent Chess Software Ltd., 11 Loudoun Road, London NW8 0LP, England.
GNU Chess	Stuart Cracraft, John Stanback, Jay Scott, Jim Aspnes, c/o SC, 3021-B Harbor Blvd., Costa Mesa, California 92626.
Greco	David Stafford, P. O. Box 2536, Denton, Texas 76202.
Lachex	Tony Warnock and Burt Wendroff, c/o BW, MS B284, Los Alamos National Laboratory, Los Alamos, New Mexico 87545.
Novag X	David Kittinger, 18923 Cantara Street, Reseda, California 91335.
Ostrich	Monty Newborn, School of Computer Science, McGill University, 805 Sherbrooke Street West, Montreal, Quebec, Canada H3A 2K6.
Recom	Ed Schroder, Merel 10, 7423 EH Deventer, The Netherlands.
Sun Phoenix	Jonathan Schaeffer and Marius Olaffson, c/o JS, Department of Computing Science, University of Alberta, Edmonton, Alberta, T6G 2H1.
Waycool	Ed Felton, Steve Otto, Rod Morison, Rob Fatland, c/o EF, 206-49 Cal Tech, Pasadena, California, 91125.

Computing System Information

Program	Computing System and Language	Book	Nodes/ Sec
Bebe	SYS-10 Chess Engine*, assembler, 65Kb, 16 bits, 10 mips. (Tony Scherzer, Linda Scherzer)	4K	40K
Belle	PDP 11/23 with special chess circuitry, C+microcode, at Bell Laboratories, Murray Hill. (Ken Thompson, Joe Condon)	400K	150K
BP	Compaq 386*, C+Asm., 1Mb, 32 bits, 3-4 mips. (Robert Cullum)	8K	.5K
Chiptest-w	SUN 3 plus high speed move generator, C, at CMU. (Thomas Anantharamam, Feng-hsiung Hsu, Murray Campbell)	.5K	500K
Cray Blitz	Cray XMP 4/8, Fort.+Assem., 128Mb, 64 bits, 480 mips, at Cray Research, Mendota Height, Minn. (Robert Hyatt, Burt Gower, Harry Nelson)	50K	100K
Cyrus 68K	68020-based micro*, assem, (Mark Taylor, David Levy).	16K	4K
GNU Chess	VAX 8650, C, 8 Mb, 32 ibts, 6 mips, at USC Information Sciences Institute, Marina del Rey, California. (Stuart Cracraft, John Stanback, Jay Scott, Jim Aspnes)	5K	.5-1.0K
Greco	AT Clone, C, 16 bits, 1mips, 640Kb. (David Stafford)	1K	.45K
Lachex	Cray XMP 4/16, Fortran and assembler, 16mwords, 64 bits, 105 mips, at Cray Research, Chippawa Falls, Wisconsin. (Tony Warnock, Burt Wendroff)	4K	50K
Novag X	6502 bit sliced microcomputer*, 6502 assembler, 4Kb RAM, 56 Kb ROM. (David Kittinger)	22K	4K
Ostrich	1 DG Eclipse S/120, 7 DG Nova's 4's, 64 Kb/proc., 16 bits, 1mips/proc., at McGill University. (Monty Newborn)	4K	2K
Recom	6502 gate array processor*, assembler, 8Kb RAM, 8 bits, 4 mips. (Ed Schroder)	7K	1.5K
Sun Phoenix	20 SUN 3 Workstations, C, at SUN Microsystems, Mountain View, Calif. (Jonathan Schaeffer, Marius Olafsson)	8K	20K
Waycool	512 processor N-cube Hypercube, 1/2 Mb/proc., 1mips/proc. C, at Cal Tech. (Ed Felto, Steve Otto, Rod Morison, Rob Fatland)	NA	NA

* indicates computer is at site

Tournament Rules

1. Each entry is a computing system and one or more human operators. A listing of all chess-related programs running on the system must be available on demand to the TD. Each entry requires at least one full-time operator (i.e., one operator cannot assist with more than one entry).
2. Participants are required to attend a meeting at 12:00 PM on October 25 for the purpose of officially registering for the tournament. Rules will be finalized at that meeting. The TD has the right to choose an alternate to replace any entry which fails to appear.
3. The tournament is a four round Swiss style tournament. The first and second rounds will be played Sunday October 25 at 1:00 PM and 7:30 PM. The third round is scheduled for Monday, October 26 at 7:30 PM, the fourth round for Tuesday October 27 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 or more 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, etc., will be used.
5. A trophy will be awarded to the entry running on a computing system that is present in Dallas and finishes highest based on tie-breaking points and weighs under 25 kilograms. That program will receive the title of North American Small Computing System Chess Champion.
5. A prize of \$2000 will be awarded to the program which finishes the tournament with the most points. In the event of a tie, the prize will be divided equally.
6. Unless otherwise specified, rules of play are identical to those of "human" tournament play. If a point is in question, the TD has the right to make the final decision.
7. Games are played at a speed of 40 moves per player in the first two hours and 20 moves per player per hour thereafter.
8. The TD 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. Every effort will be made by the TD to avoid adjudication.
9. A team may request the TD to stop its clock at most twice during the course of a game because of technical difficulties. The clock must be restarted each time after at most 15 minutes. If a team using a remote computer can clearly establish that its problems are not in its own computing system but in the communication network, the TD can permit additional time-outs.
10. Terminals located at the tournament site must communicate directly with remote computers, i.e., there cannot be any human intermediary at the remote location.

11. Each team that uses a terminal must position the terminal on the game table in such a way that the opponent has a good view of it. An operator can only (1) type in moves and (2) respond to request from the computer for clock information. If an operator must type in any other information, it must be approved ahead of time by the TD. (This might happen if there is noise on the communication line and, for example, a CR must be typed to clear the line.) The operator cannot query the system to see if it alive without permission of the TD.

12. If a failure occurs during the course of a game, the program parameters must be reset to thier values at the time the game was interupted. An operator error made when starting a game or when restarting in the middle of a game after a failure cannot be corrected!

13. If an operator types in an incorrect move, the TD must be immediately be notified. The clock will be stopped. The game must then be backed up to the point where the error occurred. The clock of the side which made the error is left unchanged while the TD will back up the clock of the other side an amount equal to that lost. The TD may back up the clock of the side in error if it would otherwise force that side to lose the game on time, or leave it with less than two minutes per move until the next time control. In this case, the TD will back up the clock of the side in error to give it an average of two minutes per move until the next time control. If no record is available, the TD will assume each move by the side not in error required three minutes. Both sides may adjust program parameters after such an error with the consent of the TD. The TD may not allow certain parameters to be changed, e.g., the contempt factor.

14. A team must receive the approval of the TD to change from one computing system to another. The new system cannot be any more powerful than the original.

15. Each game is officially played on a chess board provided by the Tournament Committee. The official clock is provided by the Tournament Committee.

16. At the end of each game, each team is required to turn in a game listing to the TD.

*P.S. It was difficult to enforce Rule #10 at the last ACM event. Every effort will be made to do so this year, however.

Technical Session

On Tuesday afternoon, October 27th, we will hold a technical session in the Wedgewood Room. The theme of the session is to discuss how well some of the theoretical approaches to computer chess have done in practice. Participants include Feng-hsiung Hsu, Robert Hyatt, Danny Kopec, David Levy, Jonathan Schaeffer, Tony Scherzer, and Ken Thompson. Tony Marsland will serve as moderator.

History of Major Tournaments

World Championships

Year	City	Winner	Runner-up
1974	Stockholm	KAISSA; Donskoy, Arlazarov, ICL 4/70	CHESS 4.0; Slate, Atkin, CDC 6600
1977	Toronto	CHESS 4.6; Slate, Atkin, CDC Cyber 176	DUCHESS; Truscott, Wright, Jensen, IBM 370/165
1980	Linz	BELLE; Thompson, Condon, PDP 11/23 with chess circuitry	CHAOS; Alexander, Swartz, Berman O'Keefe, Amdahl 470/V8
1983	New York	CRAY BLITZ; Hyatt, Gower, Nelson, Cray XMP 48	BEBE; Scherzer, Chess engine
1986	Cologne	CRAY BLITZ; Hyatt, Gower, Nelson, Cray XMP	HITECH; Berliner, et al., SUN workstation with chess circuitry

ACM's North American Computer Chess Championships

Year	City	Winner	Runner-up
1970	New York	CHESS 3.0; Slate, Atkin, Gorlen, CDC 6400	DALY CHESS PROGRAM; Daly, King, Varian 620/i
1971	Chicago	CHESS 3.5; Slate, Atkin, Gorlen, CDC 6400	TECH; Gillogly, PDP 10
1972	Boston	CHESS 3.6; Slate, Atkin, Gorlen, CDC 6400	OSTRICH; Arnold, Newborn, DG Supernova
1973	Atlanta	CHESS 4.0; Slate, Atkin, Gorlen, CDC 6400	TECH II; Baisley, PDP 10
1974	San Diego	RIBBIT; Hansen, Crook, Parry, Honeywell 6050	CHESS 4.0; Slate, Atkin, CDC 6400
1975	Minneapolis	CHESS 4.4; Slate, Atkin, CDC Cyber 175	TREEFROG; Hansen, Calnek, Crook, Honeywell 6080
1976	Houston	CHESS 4.5; Slate, Atkin, CDC Cyber 176	CHAOS; Swartz, Ruben, Winograd, Berman, Toikka, Alexander, Amdahl 470

1977	Seattle	CHESS 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	CHESS 4.7; Slate, Atkin, CDC Cyber 176
1979	Detroit	CHESS 4.9; Slate, Atkin, 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	NUCHESS; Blanchard, Slate, CDC Cyber 17
1982	Dallas	BELLE; Thompson, Condon, PDP 11/23 with chess hardware	CRAY BLITZ; Hyatt, Gower, Nelson, Cray 1
1983		Not held as the ACM's North American Computer Chess Championship that year but as the Fourth World Championship. See information above on this championship.	
1984	San Francisco	CRAY BLITZ; Hyatt, Gower, Nelson, Cray XMP/4	BEBE; Scherzer, Chess Engine, and FIDELITY EXPERIMENTAL; Sparcklen, Spracklen, Fidelity machine
1985	Denver	HITECH; Ebeling, Berliner, Goetsch, Palay, Campbell, Slomer, SUN with chess hardware	BEBE; Scherzer, Chess engine
1986	Dallas	BELLE; Thompson, Condon, PDP 11/23 with chess hardware	LACHEX, Wendroff, Cray X-MP

World Microcomputer Championships

Year	City	Winner	Runner-up
1980	London	CHESS CHALLENGER	BORIS EXPERIMENTAL.
1981	Travemunde	FIDELITY X	CHESS CHAMPION MARK V
1983	Budapest	ELITE A/S	MEPHISTO X
1984	Glasgow	Four way tie: ELITE X, MEPHISTO S/X, PRINCHESS, PSION CHESS	
1985	Amsterdam	MEPHISTO AMSTERDAM I	MEPHISTO AMSTERDAM II
1986	Dallas	MEPHISTO DALLAS 3	FIDELITY "2533"
1987	Rome	MEPHISTO	CYRUS 68K

**ACM's Seventeenth North American
Computer Chess Championship**
RESULTS AND GAMES (Ken Thompson)

Dallas, Texas
November 2-5, 1986

	rate	perf	1	2	3	4	5	total
1 Belle	2200	2507	15+■	2+□	6+■	4+■	7+□ 5	
2 Lachex	0	2249	9+□	1-■	13+□	10+■	4+□ 4	
3 Novag	0	1978	7-□	16+■	12=□	8+■	6+□ 3½	
4 Bebe	2100	2076	11+□	12+■	8+■	1-□	2-■ 3	
5 Phoenix	2000	1873	8-□	9-■	15+□	13+■	10+□ 3	
6 Mephisto	0	1910	13+□	10=■	1-□	9+□	3-■ 2½	
7 Challenger	0	1967	3+■	8-□	9=■	14+□	1-■ 2½	
8 Recom	0	1960	5+■	7+■	4-□	3-□	11=■ 2½	
9 Cyrus	0	1968	2-■	5+□	7=□	6-■	14+□ 2½	
10 Fidelity	0	1862	16+■	6=□	14+■	2-□	5-■ 2½	
11 Chiptest	0	1761	4-■	14-□	16+□	12+■	8=□ 2½	
12 Merlin	0	1676	14=■	4-□	3=■	11-□	15+□ 2	
13 Vaxchess	0	1463	6-■	15+□	2-■	5-□	16+■ 2	
14 Ostrich	1750	1696	12=□	11+■	10-□	7-■	9-■ 1½	
15 Waycool	1000	967	1-□	13-■	5-■	16=□	12-■ ½	
16 Rex	1000	969	10-□	3-□	11-■	15=■	13-□ ½	

Round 1
Bebe — Chiptest
C10/04 06 Nge2

1 e4 e6 2 d4 d5 3 \square d2 dx \square e4 4 \square x \square e4 \square d5 5
 \square c3 \square b4 6 \square ge2 \square d8 7 a3 \square d6 8 g3 \square f6 9
 \square g2 \square c6 10 O-O \square d7 11 \square g5 h6 12 \square x \square f6
 \square x \square f6 13 \square e4 \square f5 14 d5 exd5 15 \square x \square d6+
 \square x \square d6 16 \square f4 O-O-O 17 \square e1 d4 18 \square x \square c6
 \square x \square c6 19 \square x \square d4 g5 20 \square d3 \square f6 21 \square d5
 \square x \square b2 22 \square ab1 \square g7 23 \square e7+ \square c7 24 \square x \square c6
 \square d7 25 \square b5 b6 26 \square x \square a7 \square d4 27 \square c6+
 \square b8 28 \square x \square d7 \square d5 29 \square c6+ \square x \square c6 30 \square x \square c6
d5 31 \square x \square b6+ \square a7 32 \square b7# 1-0

Waycool — Belle
C44/09 12 O-O

1 e4 e5 2 \square f3 \square c6 3 c3 \square f6 4 d4 \square x \square e4 5 d5
 \square b8 6 \square x \square e5 \square c5 7 \square g4 O-O 8 \square x \square e4 d6 9
 \square d3 f5 10 \square c4 b5 11 \square x \square b5 \square e7 12 O-O
dx \square e5 13 \square g5 \square d6 14 \square b3 \square h8 15 \square d2
 \square d7 16 \square c4 h6 17 \square e3 \square x \square e3 18 fx \square e3 \square b8
19 \square a3 \square b6 20 \square f3 \square x \square b2 21 \square x \square b2 \square x \square b2
22 \square f2 \square d8 23 \square f3 \square x \square f2 24 \square x \square f2 e4 25
 \square d4 \square e5 26 \square b3 \square g4+ 27 \square e2 \square x \square h2 28 c4
 \square a6 29 \square b5 \square d7 30 \square d1 \square x \square b5 31 c \square b5 \square g4
32 \square d4 g5 33 \square a4 \square f6 34 \square x \square a7 \square x \square d5 35 a4
 \square c3+ 36 \square f1 \square d3 37 \square c2 \square d2 38 \square b3 \square b2
39 \square a8+ \square g7 40 \square g8+ \square h7 41 \square e6 \square d1 42
 \square g1 \square x \square e3 43 g3 \square g2+ 44 \square h1 \square x \square g3 45

\square c8 \square g6 46 \square x \square c7 \square f6 47 \square c6 \square e5 48 b6
 \square h3+ 49 \square g1 \square f3 50 b7 \square f1+ 51 \square h2 \square b1
52 \square c8 g4 53 \square g3 f4+ 54 \square f2 g3+ 55 \square e2
 \square b2+ 56 \square e1 g2 57 \square g6 \square d4 0-1

Phoenix — Recom
B12/08 06 Be3

1 d4 c6 2 e4 d5 3 e5 \square f5 4 \square c3 e6 5 g4 \square g6
6 \square e3 \square b4 7 \square g2 h5 8 g5 c5 9 dx \square c5 \square d7 10
c6 \square x \square c3+ 11 bx \square c3 \square x \square c6 12 \square f3 \square a5 13 \square d2
 \square e7 14 \square b1 c5 15 \square e1 d4 16 \square x \square d4 c \square d4 17
 \square x \square a8 \square x \square c3+ 18 \square e2 \square c4+ 19 \square f3 \square c8 20
 \square e4 \square x \square e5+ 21 \square g3 \square x \square e4 0-1

Novag — Challenger
A00/00 00 a3

1 a3 a5 2 e4 \square c6 3 d4 d6 4 \square b5 \square d7 5 \square f3
 \square f6 6 \square bd2 e5 7 c3 exd4 8 cx \square d4 d5 9 e5
 \square h5 10 \square b1 \square e7 11 \square x \square d7+ \square x \square d7 12 \square c3
 \square c6 13 O-O h6 14 h3 g6 15 \square b3 O-O-O
16 \square e1 \square g7 17 \square f4 \square e7 18 \square d2 \square e6 19
 \square b5 \square cx \square d4 20 \square x \square d4 \square x \square d4 21 \square x \square a5 \square b8
22 \square ad1 \square b3 23 \square b5 \square x \square b5 24 \square x \square b5 \square xd2
25 \square x \square d2 c6 26 \square d4 c5 27 \square f3 d4 28 e6 f6 29
 \square h4 \square hg8 30 g3 d3 31 \square ed1 c4 32 \square g2
 \square ge8 33 \square h4 \square d6 34 \square x \square g6 \square x \square e6 35 \square h4
 \square de8 36 \square f5 \square e1+ 37 \square g2 \square x \square d1 38 \square x \square d1
 \square c5 39 b4 cx \square b3 40 \square x \square d3 \square e2 41 \square f3 b2 42
 \square d8+ \square a7 43 \square d1 \square x \square f2+ 44 \square e4 \square e2+ 45
 \square f4 \square c2 46 \square b1 \square c4+ 47 \square f3 \square x \square a3 48 \square d6

$\mathbb{Q} \times d6$ 49 $\mathbb{E} \times b2$ $\mathbb{E} c3 \dagger$ 50 $\mathbb{Q} e4$ $\mathbb{Q} \times g3$ 51 $\mathbb{Q} f5$
 $\mathbb{Q} e5$ 52 $\mathbb{E} a2 \dagger$ $\mathbb{Q} b8$ 53 $h4$ $b5$ 54 $\mathbb{Q} g6$ $\mathbb{Q} f4$ 55
 $\mathbb{Q} \times f6$ $b4$ 56 $\mathbb{E} b2$ $b3$ 57 $\mathbb{Q} e6$ $\mathbb{Q} c1$ 58 $\mathbb{E} b1$
 $\mathbb{E} e3 \dagger$ 59 $\mathbb{Q} i7$ $b2$ 60 $\mathbb{Q} f6$ 0-1

Mephisto — Vaxchess
A28/02 06. B:d4

1 $c4$ $e5$ 2 $\mathbb{Q} c3$ $\mathbb{Q} c6$ 3 $\mathbb{Q} f3$ $\mathbb{Q} f6$ 4 $e4$ $\mathbb{Q} c5$ 5
 $\mathbb{Q} \times e5$ $\mathbb{Q} \times e5$ 6 $d4$ $\mathbb{Q} \times d4$ 7 $\mathbb{W} \times d4$ $d6$ 8 $\mathbb{Q} e2$ $\mathbb{Q} c5$
 9 $\mathbb{W} d2$ $\mathbb{Q} e6$ 10 $b3$ O-O 11 O-O $\mathbb{Q} c6$ 12
 $\mathbb{E} d1$ $\mathbb{Q} d4$ 13 $\mathbb{W} d3$ $\mathbb{E} e8$ 14 $\mathbb{Q} e3$ $\mathbb{Q} \times e2 \dagger$ 15
 $\mathbb{Q} \times e2$ $\mathbb{W} e7$ 16 $\mathbb{Q} c3$ $\mathbb{Q} g4$ 17 $\mathbb{Q} f4$ $\mathbb{Q} e5$ 18
 $\mathbb{W} \times d6$ $\mathbb{W} \times d6$ 19 $\mathbb{E} \times d6$ $\mathbb{Q} g6$ 20 $\mathbb{Q} e3$ $\mathbb{E} a8$ 21
 $\mathbb{E} a1$ $\mathbb{Q} e5$ 22 $h3$ $f6$ 23 $f4$ $\mathbb{Q} f7$ 24 $\mathbb{E} d3$ $b6$
 25 $f5$ $\mathbb{Q} e5$ 26 $f \times e6$ $\mathbb{Q} \times d3$ 27 $\mathbb{E} \times d3$ $\mathbb{E} \times e6$ 28
 $\mathbb{E} d7$ $a6$ 29 $\mathbb{Q} f2$ $\mathbb{E} c6$ 30 $\mathbb{Q} f4$ $g5$ 31 $\mathbb{Q} c7$ $h5$
 32 $\mathbb{Q} f3$ $\mathbb{Q} f8$ 33 $g3$ $\mathbb{Q} e8$ 34 $\mathbb{E} h7$ $\mathbb{Q} f8$ 35 $\mathbb{Q} d5$
 $b5$ 36 $h4$ $g \times h4$ 37 $g \times h4$ $b \times c4$ 38 $b \times c4$ $\mathbb{Q} g8$ 39
 $\mathbb{E} d7$ $\mathbb{Q} f8$ 40 $\mathbb{Q} f4$ $\mathbb{Q} e8$ 41 $\mathbb{E} d8 \dagger$ $\mathbb{Q} f7$ 42
 $\mathbb{Q} \times e6$ $\mathbb{Q} \times e6$ 43 $\mathbb{Q} f4$ $a5$ 44 $\mathbb{E} d5$ $\mathbb{Q} f7$ 45 $\mathbb{E} \times h5$
 $\mathbb{Q} e6$ 46 $\mathbb{Q} e3$ $\mathbb{E} b6$ 47 $\mathbb{E} \times c5$ 1-0

Ostrich — Merlin
C42/09 10 Nd4

1 $e4$ $e5$ 2 $\mathbb{Q} f3$ $\mathbb{Q} f6$ 3 $\mathbb{Q} \times e5$ $d6$ 4 $\mathbb{Q} f3$ $\mathbb{Q} \times e4$ 5
 $\mathbb{W} e2$ $\mathbb{W} e7$ 6 $d3$ $\mathbb{Q} f6$ 7 $\mathbb{Q} g5$ $\mathbb{W} \times e2 \dagger$ 8 $\mathbb{Q} \times e2$
 $\mathbb{Q} e7$ 9 $\mathbb{Q} c3$ $c6$ 10 $\mathbb{Q} d4$ $\mathbb{Q} a6$ 11 O-O $\mathbb{Q} c5$ 12
 $b4$ $\mathbb{Q} e6$ 13 $\mathbb{Q} \times e6$ $\mathbb{Q} \times e6$ 14 $\mathbb{Q} f3$ $\mathbb{Q} d7$ 15 $b5$
 $\mathbb{Q} d5$ 16 $\mathbb{Q} \times d5$ $\mathbb{Q} \times g5$ 17 $b \times c6 \dagger$ $b \times c6$ 18 $\mathbb{Q} \times e6 \dagger$
 $f \times e6$ 19 $\mathbb{E} a1$ $\mathbb{E} a8$ 20 $\mathbb{Q} e4$ $\mathbb{Q} f4$ 21 $g3$ $\mathbb{Q} e5$
 22 $\mathbb{Q} g2$ $\mathbb{E} b2$ 23 $\mathbb{E} \times b2$ $\mathbb{Q} \times b2$ 24 $\mathbb{E} e1$ $\mathbb{E} b8$ 25
 $\mathbb{Q} g5$ $\mathbb{Q} c3$ 26 $\mathbb{E} e2$ $e5$ 27 $\mathbb{Q} \times h7$ $\mathbb{E} b2$ 28 $a4$
 $\mathbb{Q} c8$ 29 $\mathbb{Q} g5$ $\mathbb{Q} d7$ 30 $f4$ $e \times f4$ 31 $\mathbb{Q} h7$ $f \times g3$ 32
 $\mathbb{Q} f8 \dagger$ $\mathbb{Q} c7$ 33 $h \times g3$ $\mathbb{Q} b6$ 34 $\mathbb{Q} f3$ $\mathbb{Q} a5$ 35
 $\mathbb{Q} g6$ $\mathbb{E} a2$ 36 $\mathbb{Q} e7$ $\mathbb{Q} b6$ 37 $\mathbb{E} e4$ $\mathbb{Q} f6$ 38 $\mathbb{Q} f5$
 39 $\mathbb{E} b4 \dagger$ $\mathbb{Q} a5$ 40 $\mathbb{E} b7$ $a6$ 41 $\mathbb{Q} \times g7$ $\mathbb{E} \times c2$
 42 $\mathbb{Q} e6$ $\mathbb{Q} e5$ 43 $g4$ $\mathbb{Q} \times a4$ 44 $g5$ $\mathbb{E} c1$ 45 $g6$
 $\mathbb{E} g1$ 46 $d4$ $\mathbb{Q} d6$ 47 $g7$ $\mathbb{E} g3 \dagger$ 48 $\mathbb{Q} e2$ $\mathbb{E} g2 \dagger$
 49 $\mathbb{Q} e3$ $\mathbb{E} g6$ 50 $\mathbb{Q} f8$ $\mathbb{E} g3 \dagger$ 51 $\mathbb{Q} f2$ $\mathbb{Q} \times g7$ 52
 $\mathbb{E} \times g7$ $\mathbb{Q} f8$ 53 $\mathbb{Q} c7$ $\mathbb{Q} b5$ 54 $\mathbb{Q} b7 \dagger$ $\mathbb{Q} c4$ 55
 $\mathbb{E} c7$ $\mathbb{Q} \times d4$ 56 $\mathbb{E} \times c6$ $a5$ ½-½

Lachex — Cyrus
B22/15 05. Nf6

1 $e4$ $c5$ 2 $c3$ $d5$ 3 $\mathbb{W} \times d5$ 4 $d4$ $e6$ 5 $\mathbb{Q} f3$
 $\mathbb{Q} f6$ 6 $\mathbb{Q} b5 \dagger$ $\mathbb{Q} c6$ 7 O-O $\mathbb{c} \times d4$ 8 $c4$ $\mathbb{W} d6$ 9
 $\mathbb{Q} \times d4$ $\mathbb{Q} d7$ 10 $\mathbb{Q} \times c6$ $\mathbb{Q} \times c6$ 11 $\mathbb{Q} c3$ $\mathbb{W} c7$ 12
 $\mathbb{W} f3$ $\mathbb{Q} d6$ 13 $\mathbb{Q} \times c6 \dagger$ $b \times c6$ 14 $\mathbb{Q} b5$ $\mathbb{Q} \times h2 \dagger$ 15
 $\mathbb{Q} h1$ $\mathbb{W} c8$ 16 $\mathbb{Q} \times a7$ $\mathbb{E} a7$ 17 $\mathbb{Q} \times h2$ O-O 18
 $\mathbb{Q} g1$ $\mathbb{W} b7$ 19 $a4$ $\mathbb{E} a5$ 20 $\mathbb{Q} d2$ $\mathbb{E} f5$ 21 $\mathbb{W} a3$
 $\mathbb{E} b8$ 22 $b4$ $\mathbb{Q} e4$ 23 $\mathbb{Q} e1$ $\mathbb{Q} c7$ 24 $a5$ $\mathbb{W} f4$ 25
 $a6$ $\mathbb{Q} d2$ 26 $a7$ $\mathbb{E} a8$ 27 $\mathbb{Q} \times d2$ $\mathbb{W} \times d2$ 28 $\mathbb{E} a1$
 $\mathbb{W} g5$ 29 $b5$ $\mathbb{c} \times b5$ 30 $\mathbb{W} d6$ $\mathbb{E} c8$ 31 $\mathbb{W} b8$

$\mathbb{W} \times g2 \dagger$ 1-0

Rex — Fidelity
B22/14 08 Qd2

1 $e4$ $c5$ 2 $c3$ $\mathbb{Q} c6$ 3 $d4$ $\mathbb{c} \times d4$ 4 $\mathbb{c} \times d4$ $d5$ 5 $\mathbb{W} \times d5$
 $\mathbb{W} \times d5$ 6 $\mathbb{Q} f3$ $e5$ 7 $\mathbb{Q} c3$ $\mathbb{Q} b4$ 8 $\mathbb{W} d2$ $\mathbb{Q} c3$ 9
 $\mathbb{b} \times c3$ $\mathbb{W} \times d4$ 10 $\mathbb{c} \times d4$ $\mathbb{Q} g7$ 11 $\mathbb{Q} e2$ $\mathbb{Q} f5$ 12
 O-O O-O 13 $\mathbb{E} d1$ $b5$ 14 $\mathbb{W} b2$ $a6$ 15 $\mathbb{Q} f4$ $h6$
 16 $\mathbb{E} a1$ $\mathbb{Q} e6$ 17 $a3$ $\mathbb{W} b3$ 18 $\mathbb{W} \times b3$ $\mathbb{Q} \times b3$ 19
 $\mathbb{E} d3$ $\mathbb{Q} c4$ 20 $\mathbb{E} d2$ $\mathbb{Q} a5$ 21 $\mathbb{E} c1$ $\mathbb{Q} d5$ 22 $\mathbb{Q} d6$
 $\mathbb{E} f8$ 23 $\mathbb{Q} d3$ $\mathbb{Q} \times d3$ 24 $\mathbb{E} \times d3$ $\mathbb{Q} c4$ 25 $\mathbb{Q} c5$
 $\mathbb{Q} b2$ 26 $\mathbb{E} d2$ $\mathbb{Q} \times d1$ 27 $\mathbb{E} \times d1$ $f6$ 28 $\mathbb{E} d2$ $\mathbb{E} e4$
 29 $h4$ $g6$ 30 $\mathbb{Q} h2$ $\mathbb{E} a8$ 31 $\mathbb{Q} d6$ $\mathbb{Q} f7$ 32 $\mathbb{Q} b4$
 $\mathbb{Q} \times b4$ 33 $a \times b4$ $\mathbb{E} e2$ 34 $\mathbb{Q} g3$ $h5$ 35 $\mathbb{E} \times e2$ $\mathbb{E} \times e2$
 36 $d5$ $\mathbb{E} e4$ 37 $\mathbb{Q} h3$ $\mathbb{E} \times b4$ 38 $\mathbb{Q} g3$ $\mathbb{E} g4 \dagger$ 39
 $\mathbb{Q} h2$ $\mathbb{Q} e7$ 40 $\mathbb{Q} g1$ $\mathbb{Q} d6$ 41 $g3$ $\mathbb{Q} \times d5$ 42 $\mathbb{Q} f1$
 $a5$ 43 $\mathbb{Q} e2$ $a4$ 0-1

Round 2
Vaxchess — Waycool
E45/14 10 b3

1 $d4$ $\mathbb{Q} f6$ 2 $c4$ $e6$ 3 $\mathbb{Q} c3$ $\mathbb{Q} b4$ 4 $e3$ $b6$ 5 $\mathbb{Q} \times g2$
 $\mathbb{Q} a6$ 6 $a3$ $\mathbb{Q} e7$ 7 $\mathbb{Q} f4$ $d5$ 8 $\mathbb{c} \times d5$ $\mathbb{Q} \times f1$ 9 $\mathbb{Q} \times f1$
 $\mathbb{W} \times d5$ 10 $b3$ O-O 11 $a4$ $\mathbb{Q} b4$ 12 $\mathbb{W} d3$ $g5$ 13
 $\mathbb{Q} f2$ $\mathbb{Q} c6$ 14 $\mathbb{W} f5$ $h6$ 15 $h4$ $\mathbb{Q} a5$ 16 $h \times g5$
 $\mathbb{Q} e4$ 17 $\mathbb{Q} \times d5$ $\mathbb{Q} \times g5$ 18 $\mathbb{Q} \times b4$ $c5$ 19 $\mathbb{Q} d3$
 $\mathbb{Q} \times b3$ 20 $\mathbb{E} b1$ $\mathbb{Q} \times c1$ 21 $\mathbb{E} \times c1$ $c \times d4$ 22 $\mathbb{Q} \times d4$
 $\mathbb{Q} g7$ 23 $\mathbb{W} e5 \dagger$ $f6$ 24 $\mathbb{Q} f5 \dagger$ $\mathbb{Q} g8$ 25 $\mathbb{Q} \times h6 \dagger$
 $\mathbb{Q} h8$ 26 $\mathbb{W} b5$ $\mathbb{Q} h7$ 27 $\mathbb{Q} f5$ $a6$ 28 $\mathbb{W} b3$ $\mathbb{Q} d7$
 29 $\mathbb{Q} d4$ $\mathbb{W} b7$ 30 $\mathbb{E} c6$ $\mathbb{E} a8$ 31 $\mathbb{Q} f4$ $\mathbb{E} f8$ 32
 $\mathbb{Q} f5$ $\mathbb{E} g8$ 33 $\mathbb{E} \times f6$ $a5$ 34 $\mathbb{E} f7$ 1-0

Rex — Novag
B22/01 02. e6

1 $e4$ $c5$ 2 $c3$ $e6$ 3 $d4$ $d5$ 4 $\mathbb{W} \times d5$ $\mathbb{c} \times d5$ 5 $\mathbb{Q} f3$
 $\mathbb{Q} d6$ 6 $\mathbb{Q} e3$ $c4$ 7 $b3$ $\mathbb{c} \times b3$ 8 $\mathbb{Q} b5 \dagger$ $\mathbb{Q} c6$ 9 $a \times b3$
 $\mathbb{Q} d7$ 10 O-O $\mathbb{E} f6$ 11 $\mathbb{Q} a3$ O-O 12 $\mathbb{E} e1$ $a6$
 13 $\mathbb{Q} d3$ $\mathbb{E} e8$ 14 $\mathbb{Q} c2$ $\mathbb{Q} c7$ 15 $h3$ $\mathbb{Q} a5$ 16 $\mathbb{Q} e5$
 $\mathbb{Q} \times b3$ 17 $\mathbb{Q} \times d7$ $\mathbb{Q} \times d7$ 18 $\mathbb{E} a2$ $\mathbb{W} \times c3$ 19 $\mathbb{Q} f5$
 $\mathbb{Q} f6$ 20 $\mathbb{W} b1$ $b5$ 21 $\mathbb{Q} f1$ $\mathbb{Q} e4$ 22 $\mathbb{Q} g1$ $\mathbb{Q} c4$
 23 $\mathbb{W} b2$ $a5$ 24 $\mathbb{Q} a3$ $\mathbb{Q} c3$ 25 $\mathbb{Q} c2$ $b4$ 26 $h4$
 $\mathbb{W} \times b2$ 27 $\mathbb{E} \times b2$ $\mathbb{Q} \times b2$ 28 $\mathbb{Q} d7$ $\mathbb{Q} c4$ 29 $\mathbb{Q} \times e8$
 $\mathbb{Q} \times b2$ 30 $\mathbb{Q} c6$ $\mathbb{E} c8$ 31 $\mathbb{Q} \times d5$ $\mathbb{Q} f6$ 32 $\mathbb{Q} b3$ $a4$
 33 $\mathbb{Q} \times f7 \dagger$ $\mathbb{Q} \times f7$ 34 $\mathbb{E} e2$ $b3$ 35 $\mathbb{Q} e1$ $a3$ 0-1

Challenger — Recom
B13/05 13 Bd2

1 $e4$ $c6$ 2 $d4$ $d5$ 3 $\mathbb{W} \times d5$ $\mathbb{c} \times d5$ 4 $\mathbb{Q} d3$ $\mathbb{Q} c6$ 5 $c3$
 $\mathbb{Q} f6$ 6 $\mathbb{Q} f4$ $g6$ 7 $\mathbb{Q} f3$ $\mathbb{Q} g7$ 8 $\mathbb{Q} \times b2$ $\mathbb{Q} h5$ 9
 $\mathbb{Q} e3$ O-O 10 O-O $f5$ 11 $\mathbb{Q} b3$ $\mathbb{W} d6$ 12 $\mathbb{E} e1$
 $f4$ 13 $\mathbb{Q} d2$ $\mathbb{Q} g4$ 14 $\mathbb{Q} e2$ $\mathbb{E} a8$ 15 $\mathbb{Q} e5$ $\mathbb{Q} \times e2$
 16 $\mathbb{W} \times e2$ $e6$ 17 $\mathbb{Q} f3$ $e5$ 18 $d \times e5$ $\mathbb{Q} \times e5$ 19

\square x e 5 \square x e 5 20 \square d3 \square f6 21 \square d4 \square e4 22 a4
 b6 23 \square b5 \square c5 24 \square e2 a6 25 \square d4 \square x d 2 26
 b4 \square c4 27 \square x d 2 \square f6 28 b5 a5 29 \square f3 \square e4
 30 \square d3 \square c8 31 \square x c 4 \square x c 4 32 f3 \square x d 4 33
 \square x d 4 \square x d 4+ 34 \square x d 4 \square x d 4 35 \square f1 \square d2 36
 \square e1 \square f7 37 \square c1 \square a2 38 \square c6 \square x a 4 39 \square x b 6
 \square b4 40 \square b7+ \square e6 41 g3 fxg3 42 h \times g3 h5 43
 b6 d4 44 \square e2 \square d5 45 \square d7+ \square c5 46 b7 a4
 47 \square c7+ \square d5 48 \square g7 a3 49 \square x g 6 \square x b 7 50
 \square h6 \square c4 51 \square c6t \square b3 52 \square c1 a2 53 \square d3
 \square a3 54 \square a1 \square b1 55 \square x a 2+ \square x a 2 56 \square x d 4
 \square g1 57 \square d3 0-1

Merlin — Bebe
B22/16 09. Qa5

1 e4 c5 2 c3 d5 3 exd5 \square x d 5 4 d4 e6 5 \square f3
 \square c6 6 \square e2 \square f6 7 O-O cxd4 8 cxd4 \square e7 9
 \square c3 \square a5 10 \square f4 O-O 11 \square e5 \square d8 12 \square x c 6
 \square x c 6 13 \square e5 \square d7 14 \square f4 \square f8 15 \square e3 e5 16
 \square f3 exd4 17 \square x d 4 \square f6 18 \square x c 6 \square x d 4 19
 \square x a 8 \square x c 3 20 \square c2 \square f6 21 \square e4 \square e6 22
 \square fd1 \square b8 23 \square d2 \square e5 24 \square d3 \square x b 2 25
 \square d5 \square f4 26 \square g3 \square x g 3 27 h \times g3 \square x d 5 28
 \square x d 5 \square c2 29 \square ad1 \square x a 2 30 \square c1 a5 31 \square f1
 a4 32 \square c8 a3 33 \square a8 \square c3 34 \square b5 \square d4 35
 \square f5 h6 36 g4 g6 37 \square f3 \square c5 38 \square c8 \square a1t 39
 \square e2 \square b4 40 \square e3 a2 41 \square a8 \square e1t 0-1

Belle — Lachex
C24/05 04. Bb4+

1 e4 e5 2 \square c4 \square f6 3 d4 exd4 4 \square f3 \square b4+ 5
 \square c3 dxc3 6 bx c 3 \square c5 7 e5 \square e7 8 \square e3 \square e4 9
 \square d3 \square x e 3 10 \square x e 3 \square c5 11 O-O O-O 12
 \square d1 \square c6 13 \square d5 b6 14 \square d4 \square b7 15 \square x c 6
 \square x c 6 16 \square f5 \square e6 17 \square d4 \square g6 18 f4 \square e4
 19 \square g3 \square e6 20 \square x e 6 fx e 6 21 \square d7 \square f7 22
 \square x f 7 \square x f 7 23 \square d2 \square e2 24 \square f3 \square x e 3+ 25
 \square h1 \square g8 26 \square d1 \square h8 27 \square d7 \square g8 28
 \square x c 7 \square a8 29 \square g1 \square x g 3 30 h \times g3 c5 31 \square x a 7
 h6 32 \square a6 \square b8 33 \square h2 h5 34 \square f3 \square e4 35
 \square g5 \square d5 36 a4 \square c4 37 \square a7 \square g8 38 a5 bx a 5
 39 \square x a 5 \square c8 40 \square e4 \square d5 41 \square x c 5 \square x c 5 42
 \square x c 5 \square f7 43 \square h3 \square e7 44 \square d3 \square d7 45
 \square h4 g6 46 \square g5 \square e7 47 \square b4 \square e4 48 c4
 \square d7 49 c5 \square c7 50 \square f6 \square f5 51 \square e7 \square g4 52
 \square c2 \square c6 53 \square d4+ \square x c 5 54 \square x e 6+ 1-0

Fidelity — Mephisto
D11/03 04 e4

1 d4 d5 2 c4 dx c 4 3 \square f3 c6 4 e4 b5 5 \square f4
 \square f6 6 \square bd2 \square g4 7 \square e3 e6 8 \square e2 \square bd7 9
 O-O \square c7 10 h3 \square h5 11 \square c2 \square b4 12 e5
 \square g6 13 \square c1 \square d5 14 \square h4 \square d3 15 \square x d 3

\square x e 3 16 \square x e 3 cxd3 17 \square hf3 c5 18 a3 \square x d 2
 19 \square x d 2 c4 20 \square ac1 \square b7 21 b3 \square c8 22
 \square b4 \square c6 23 a4 c3 24 ax b 5 \square e4 25 \square x c 3
 \square x e 3+ 26 \square h2 \square x c 3 27 \square x c 3 O-O 28 \square d1
 \square b6 29 \square x d 3 \square e2 30 \square d2 \square f1 31 \square d1
 \square x d 1 32 \square x d 1 \square d8 33 \square a1 \square d7 34 \square c1 f6
 35 \square c5 \square f7 36 \square g3 \square d5 37 \square h4 \square b7 38
 \square d2 \square f4 39 ex f 6 gx f 6 40 g3 \square e2 41 \square f3
 \square d7 42 g4 \square x d 4 43 \square x d 4 \square x d 4 44 \square c7+
 \square g6 45 \square x a 7 \square b4 46 \square b7 e5 47 \square b8 \square x b 3
 48 b6 \square g7 49 \square b7+ \square h6 50 \square b8 \square g6 51 b7
 \square g7 52 g5 f5 53 \square e8 \square b4+ 54 \square h5 \square x b 7 55
 \square x e 5 \square f7 56 \square e3 \square d7 57 \square f3 \square f7 58 \square f4
 \square f8 59 \square f2 \square f7 60 \square f3 \square f8 61 h4 ½-½

Chiptest — Ostrich
A03/07 04 b3

1 f4 d5 2 e3 \square f6 3 \square f3 \square g4 4 b3 \square bd7 5
 \square b2 \square e4 6 \square e2 \square x f 3 7 \square x f 3 e6 8 \square x e 4
 \square x e 4 9 O-O \square h4 10 g4 O-O-O 11 \square c3 f5
 12 gxf5 exf5 13 \square h1 \square c5 14 \square b5 a6 15
 \square d4 \square h3 16 \square g1 \square d5 17 \square x f 5 \square x f 5 18
 \square x g 7 \square x g 7 19 \square x g 7 \square f3+ 20 \square x f 3 exf3 21
 \square x c 7+ \square c7 22 \square f1 \square e4 23 d3 \square d2 24 \square f2
 \square e8 25 \square x d 2 \square x e 3 26 \square g1 \square x f 4 27 \square f2
 \square e5 28 c3 \square h5 29 \square f1 f2 0-1

Cyrus — Phoenix
C10/02 04 e5

1 e4 e6 2 d4 d5 3 \square c3 \square c6 4 e5 \square b4 5 \square e2
 f6 6 \square f3 \square ge7 7 ex f 6 gx f 6 8 \square d2 \square f5 9 a3
 \square f8 10 \square d3 \square x d 4 11 \square x d 4 \square x d 4 12 \square h5+
 \square d7 13 O-O f5 14 \square fe1 h6 15 \square g6 c5 16
 \square b5 \square c6 17 \square x d 4+ cxd4 18 \square x f 5 \square d6 19
 \square x e 6 \square x e 6 20 \square x e 6 \square c7 21 \square x h 6 \square d7 22
 f4 \square ag8 23 \square f6 \square c5 24 \square x e 5+ \square c8 25 \square h1
 \square e8 26 f5 a5 1-0

Round 3
Recom — Bebe
E03/01 09. Bc5

1 d4 \square f6 2 g3 d5 3 \square g2 e6 4 c4 dx c 4 5
 \square a4+ \square bd7 6 \square x c 4 c5 7 \square f3 \square b6 8 \square d3
 \square x d 4 9 O-O \square c5 10 \square d1 O-O 11 e3 \square d5 12
 \square x d 4 \square d8 13 \square g5 \square e7 14 \square e5 \square a5 15 \square c3
 h6 16 \square e3 h5 17 a3 \square bd5 18 \square x d 5 \square x d 5 19
 b4 \square a4 20 \square f3 h4 21 \square d2 h \times g3 22 fx g 3 b6
 23 \square h5 f5 24 \square f7+ \square f8 25 \square e2 \square f6 26
 \square h5 \square d7 27 \square e1 \square x e 5 28 dx e 5 \square e8 29
 \square x e 8 \square x e 8 30 \square h7 \square f7 31 \square h4 \square b5 32
 a4 \square d3 33 \square h5+ \square g8 34 \square ad1 \square d4+ 35
 \square h1 \square x b 4 36 \square x b 4 \square x b 4 37 \square g6 \square e8 38
 \square a1 \square ad8 39 \square h5 \square e7 40 \square ad1 \square ed7 41

Lachex — Vaxchess
B22/15 05. Nf6

1 e4 c5 2 c3 d5 3 e×d5 ♜xg2 4 d4 e6 5 ♜f3 ♜f6 6 ♜b5† ♜d7 7 ♜×d7† ♜b×d7 8 O-O c×d4 9 c×d4 ♜b4 10 ♜a4 a5 11 ♜c3 ♜×c3 12 b×c3 b5 13 ♜a3 e5 14 ♜g5 e4 15 ♜×f6 ♜f6 16 ♜e5 a4 17 ♜ab1 h5 18 ♜b4 ♜×a2 19 c4 b×c4 20 ♜b5† ♜e7 21 ♜b7† ♜e6 22 ♜×f7† ♜f5 23 ♜c4 ♜f4 24 g3† ♜g4 25 ♜×g7† 1-0

Chiptest — Rex
A03/08 04. Nbd7

1 f4 d5 2 e3 ♜f6 3 ♜f3 e6 4 b3 ♜bd7 5 ♜e2 ♜c5 6 ♜b2 O-O 7 O-O ♜e4 8 ♜c3 ♜b6 9 ♜e1 ♜d7 10 ♜×e4 d×e4 11 ♜e5 ♜d5 12 ♜f1 b5 13 c4 b×c4 14 ♜×c4 ♜b8 15 ♜e5 ♜b5 16 ♜×b5 ♜×b5 17 ♜c2 ♜f6 18 a4 ♜b6 19 ♜×c5 ♜×d2 20 ♜c4 ♜c2 21 ♜a3 ♜bb8 22 ♜×c7 ♜fc8 23 ♜×a7 ♜b3 24 ♜acl ♜e2 25 ♜a5 ♜bc3 26 ♜c3 ♜e8 27 ♜c4 ♜d5 28 ♜e5 ♜h8 29 ♜×f7 ♜b8 30 ♜×e6 ♜×f1† 31 ♜×f1 ♜×e3† 32 ♜×e3 h6 33 ♜f7† ♜h7 34 ♜g5† ♜h8 35 ♜b2 h5 36 ♜h6† ♜g8 37 ♜×g7# 1-0

Ostrich — Fidelity
C68/06 10 O-O

1 e4 e5 2 ♜f3 ♜c6 3 ♜b5 a6 4 ♜×c6 d×c6 5 d4 e×d4 6 ♜×d4 ♜×d4 7 ♜×d4 ♜d7 8 ♜c3 O-O-O 9 ♜e3 ♜e8 10 O-O ♜f6 11 f3 h5 12 ♜g5 ♜h7 13 ♜h4 ♜d6 14 ♜ad1 g5 15 ♜f2 ♜f6 16 ♜e3 ♜hg8 17 ♜f2 g4 18 ♜h1 ♜×h2 19 ♜fd2 ♜d6 20 ♜f2 g×f3 21 g×f3 h4 22 ♜e2 ♜h5 23 e5 ♜×e5 24 ♜×h4 ♜h8 25 ♜×e5 ♜e5 26 ♜h2 c5 27 f4 ♜e3 28 ♜g1 ♜×f4 29 ♜f6 ♜g8† 30 ♜f2 ♜gg3 31 ♜f1 c×d4 32 ♜×d4 ♜gf3† 33 ♜g1 ♜e8 0-1

Mephisto — Belle
D31/11 04 Qb3

1 d4 d5 2 c4 e6 3 ♜c3 c6 4 ♜b3 d×c4 5 ♜×c4 b5 6 ♜d3 ♜a6 7 ♜e4 b4 8 ♜d2 ♜d5 9 ♜g3 ♜f6 10 ♜f3 c5 11 e3 ♜×f1 12 ♜×f1 ♜c6 13 b3 c×d4 14 e×d4 ♜d8 15 ♜b2 a5 16 ♜c2 ♜c8 17 ♜c1 ♜c7 18 ♜d3 ♜d6 19 ♜c4 O-O 20 ♜g1 ♜fc8 21 ♜e2 ♜f4 22 ♜f1 ♜f5 23 ♜d3d2 ♜d5 24 ♜e4 ♜g6 25 g3 ♜b6 26 ♜c5 ♜d7 27 ♜c4 ♜h6 28 ♜c2 ♜b6 29 ♜c5

30 ♜d3 ♜f4 31 ♜f3 ♜h3 32 ♜g2 ♜g5 33 ♜×g5 ♜g5 34 ♜e3 ♜e7 35 ♜c4 ♜b1† 36 ♜d1 ♜xa2 37 d5 e×d5 38 ♜g4 g6 39 ♜d3 ♜d8 40 ♜f4 ♜g5 41 ♜g4 ♜c1 42 f4 ♜e8† 43 ♜f1 ♜ce7 44 ♜e5 ♜xe5 45 f×e5 ♜a1 46 ♜f2 ♜xe5 47 ♜g2 f5 48 ♜×f5 ♜×f5 49 ♜×f5 ♜e5 50 ♜×e5 ♜×e5 51 ♜f3 ♜f7 52 ♜d4 ♜e6 53 g4 ♜g5 54 ♜d3 h5 55 ♜f2 ♜d6 56 g×h5 g×h5 57 ♜h3 ♜h6 58 ♜g1 ♜e4 59 ♜e2 ♜e5 60 ♜g3 ♜f4† 61 ♜g2 h4 62 ♜e2 ♜e4 63 ♜f2 ♜f8 64 ♜f3 ♜c5 65 ♜d2 ♜e3† 66 ♜g4 ♜b3 67 ♜f4 d4 68 ♜d3† ♜d5 69 ♜×h4 ♜d6 70 ♜b2 ♜e3 71 ♜g4 ♜e4† 72 ♜h5 ♜e5† 73 ♜g4 ♜e3 74 h3 ♜g3† 75 ♜h4 b3 76 ♜f2 ♜e3 77 ♜f1 ♜a3 78 ♜f5† ♜e6 79 ♜f2 ♜×b2 80 ♜×b2 a4 81 ♜g2 a3 82 ♜g5 a2 0-1

Phoenix — Waycool
A45/10 11 Kh1

1 d4 ♜f6 2 ♜g5 ♜e4 3 ♜h4 g5 4 f3 g×h4 5 f×e4 c5 6 e3 ♜b6 7 ♜f3 ♜×b2 8 ♜bd2 ♜c3 9 ♜d3 ♜h6 10 O-O ♜×e3† 11 ♜h1 ♜×d2 12 ♜d2 c×d4 13 ♜b3 O-O 14 ♜g4† ♜h8 15 ♜×h4 f6 16 e5 ♜f7 17 e×f6 e×f6 18 ♜ael ♜×d3 19 ♜×f6 1-0

Cyrus — Challenger
A18/13 10. Nc6

1 c4 ♜f6 2 ♜c3 e6 3 e4 d5 4 e5 d4 5 e×f6 d×c3 6 b×c3 ♜×f6 7 d4 c5 8 ♜f3 c×d4 9 ♜g5 ♜f5 10 c×d4 ♜c6 11 c5 ♜d7 12 ♜d3 ♜d5 13 ♜b3 b6 14 ♜c1 f6 15 ♜×d5 e×d5 16 ♜d2 b×c5 17 d×c5 ♜b8 18 O-O ♜g4 19 ♜f4 ♜b2 20 ♜fe1† ♜e7 21 ♜e2 ♜b4 22 ♜d6 ♜f7 23 ♜e7 ♜×f3 24 g×f3 ♜×e7 25 c6 g6 26 c7 ♜c8 27 ♜d2 ♜e6 28 ♜dc2 ♜d7 29 ♜c5 ♜d6 30 ♜c6† ♜e7 31 ♜g2 ♜b2 32 ♜c5 ♜b6 33 ♜c2 ♜×c6 34 ♜×c6 ♜e8 35 ♜c1 ♜d6 36 ♜b5 ♜g8 37 ♜g3 d4 38 ♜c6† ♜e7 39 ♜c4 ♜f8 40 ♜a6 ♜d7 41 ♜c1 ♜d6 42 ♜f4 ♜e8 43 h4 ♜d5 44 h5 ♜d6 45 h×g6 h×g6 46 ♜g4 ♜h8 47 f4 ♜d7 48 ♜b5† ♜e7 49 f5 g×f5† 50 ♜f4 ♜h4† 51 ♜g3 ♜g4† 52 ♜f3 ♜g7 53 ♜a6 ♜d7 54 ♜e2 ♜g2 55 a3 ♜h2 56 ♜d3 ♜f2 57 ♜×d4 ♜h2 58 ♜b5† ♜d6 59 ♜c6† ♜e7 60 ♜d3 ♜h5 61 ♜e3 ♜h3† 62 ♜d2 ♜h2† 63 ♜e1 ♜d7 64 ♜c3 ♜e6 65 ♜a6 ♜h8 66 ♜d3 ♜e7 67 ♜f2 ♜f8 68 ♜c3 ♜d7 69 ♜b5† ♜d6 70 ♜c6† ♜d5 71 ♜c1 ♜d6 72 ♜a6 ♜e6 73 ♜d1 ♜e7 74 ♜e3 ♜h8 75 ♜b7 ♜b6 76 ♜c1 ♜c8 77 ♜g2 ♜h4 78 ♜f2 a5 79 ♜c5 a4 80 ♜c3 ♜d6 81 ♜b7 ♜d7 82 ♜g3 ♜h8 83 ♜f4

$\square d6$ 84 $\square d5$ $\square c8$ 85 $\square c6t$ $\square x c7$ 86 $\square x a4t$
 $\square b6$ 87 $\square x c8$ $\square x c8$ 88 $\square x f5$ $\square d6t$ 89 $\square x f6$
 $\square c4$ 90 $\square c2$ $\square x a3$ ½-½

Novag — Merlin
C30/13 11 Bd3

1 e4 e5 2 f4 $\square c5$ 3 $\square f3$ d6 4 c3 $\square f6$ 5 $f \times e5$
 $\square x e5$ 6 $\square x e5$ $\square e7$ 7 d4 $\square d6$ 8 $\square f3$ $\square x e4$ 9
 $\square e2$ O-O 10 O-O c5 11 $\square d3$ $\square d7$ 12 $\square e1$
f5 13 $\square c4t$ $\square h8$ 14 $\square e3$ $\square b6$ 15 $\square b2d2$ cxd4
16 cxd4 $\square x c4$ 17 $\square x c4$ $\square b4$ 18 $\square d2$ $\square e6$ 19
 $\square c1$ $\square x d2$ 20 $\square f \times d2$ b5 21 $\square x e4$ $f \times e4$ 22 d5
 $b \times c4$ 23 $d \times e6$ 24 $\square x d4$ $\square f e8$ 25 $\square x c4$ e3
26 $\square c7$ $\square e5$ 27 $\square x e5$ $\square x e5$ 28 $\square f7$ $\square g8$ 29
 $\square d7$ a5 30 $\square e2$ $\square c8$ 31 g3 $\square c6$ 32 $\square g2$ $\square b6$
33 h3 $\square f8$ 34 g4 h5 35 $\square g3$ $\square x g4$ 36 $\square x g4$
g5 37 $\square d3$ $\square x b2$ 38 $\square x b2$ e2 39 $\square b1$ e1 $\square t$
40 $\square x e1$ $\square x e1$ 41 $\square f3$ $\square e5$ 42 $\square d7$ $\square e8$ 43
 $\square c7$ $\square f8$ 44 a3 $\square e8$ 45 $\square b7$ $\square f8$ 46 $\square d7$
 $\square e8$ 47 $\square c7$ $\square d8$ 48 $\square b7$ $\square e8$ 49 $\square a7$ ½-½

Round 4
Vaxchess — Phoenix
A44/11 05 Nf3

1 d4 c5 2 d5 e5 3 e4 d6 4 $\square c3$ g6 5 $\square f3$
 $\square g7$ 6 $\square g5$ $\square f6$ 7 $\square e3$ $\square e7$ 8 $\square b5t$ $\square d7$ 9
O-O O-O 10 $\square h6$ $\square g7$ 11 $\square x g7$ $\square x g7$ 12
 $\square d3$ $\square b6$ 13 a4 f5 14 $\square f1$ $f \times e4$ 15 $\square x e4$ a6
16 $\square f1$ $\square f4$ 17 $\square d3$ $\square f5$ 18 $\square d2$ $\square g4$ 19
 $\square e2$ $\square b4$ 20 b3 h6 21 a5 $\square d7$ 22 h3 $\square x f3$ 23
 $\square x f3$ $\square d4$ 24 $\square e2$ $\square f6$ 25 $\square d3$ $\square d7$ 26 $\square e1$
 $\square c7$ 27 $\square a1$ c4 28 $b \times c4$ $\square x c4$ 29 $\square a3$ $\square c5$ 30
 $\square e3$ $\square x a5$ 31 $\square x a5$ $\square x a5$ 32 $\square d2$ $\square a1t$ 33
 $\square h2$ $\square f5$ 34 g4 $\square d4$ 35 $\square e2$ $\square x f3t$ 36 $\square x f3$
a5 37 $\square c3$ $\square f8$ 38 f4 $\square e4$ 39 $\square c7$ $\square f7$ 40
 $\square x f7t$ $\square x f7$ 41 $\square e3$ $\square a4$ 42 $f \times e5$ $\square x c2$ 43
e6t $\square e7$ 44 $\square g1$ $\square d1t$ 45 $\square h2$ $\square x d5$ 46
 $\square x h6$ $\square x e6$ 47 $\square g7t$ $\square f7$ 48 $\square d4$ $\square f3$ 49
 $\square g7t$ $\square d8$ 50 $\square g8t$ $\square c7$ 51 $\square g7t$ $\square b8$ 52
 $\square h8t$ $\square a7$ 53 $\square d4t$ b6 54 $\square c4$ $\square f2t$ 55
 $\square h1$ $\square x e2$ 56 $\square x e2$ $\square g3t$ 57 $\square g2$ $\square x e2$ 58
 $\square f3$ a4 59 $\square x e2$ a3 60 $\square e3$ 0-1

Mephisto — Cyrus
D14/05 08 Bd3

1 d4 d5 2 c4 c6 3 cxd5 cxd5 4 $\square f3$ $\square f6$ 5
 $\square c3$ $\square c6$ 6 $\square f4$ $\square f5$ 7 e3 e6 8 $\square d3$ $\square x d3$ 9
 $\square x d3$ $\square h5$ 10 $\square g5$ f6 11 $\square h4$ g5 12 $\square g3$ g4
13 $\square d2$ $\square x g3$ 14 $h \times g3$ f5 15 a3 h5 16 $\square e2$
 $\square g5$ 17 $\square f4$ $\square h6$ 18 $\square b5$ O-O-O 19 $\square c1$
 $\square d6$ 20 $\square b3$ a6 21 $\square x c6t$ $b \times c6$ 22 $\square x c6t$
 $\square b8$ 23 $\square a5$ $\square g7$ 24 $\square b6t$ $\square c8$ 25 $\square x a6t$
 $\square d7$ 26 $\square b7t$ $\square c7$ 27 $\square c6t$ $\square c8$ 28 $\square x e6$

$\square x e6$ 29 $\square x e6t$ $\square d7$ 30 $\square a6t$ $\square d8$ 31 $\square c6t$
 $\square e8$ 32 $\square c8t$ $\square d8$ 33 $\square e5$ 1-0

Recom — Novag
D34/16 11. Bb4

1 d4 $\square f6$ 2 g3 e6 3 $\square g2$ d5 4 c4 c5 5 cxd5
 $\square x d5$ 6 $\square f3$ $\square c6$ 7 $\square c3$ $\square e7$ 8 O-O O-O 9
 $\square g5$ cxd4 10 $\square x d4$ h6 11 $\square e3$ $\square b4$ 12 $\square b3$
 $\square x c3$ 13 $\square x c3$ $\square g4$ 14 $\square f1$ $\square c8$ 15 $\square x c6$
 $\square x c6$ 16 $\square d3$ $\square e7$ 17 h3 $\square h5$ 18 $\square d2$ $\square e4$
19 $\square x e4$ $d \times e4$ 20 $\square d5$ $\square g6$ 21 $\square x a7$ $\square f8$ 22
 $\square a1$ b6 23 $\square d7$ $\square b4$ 24 $\square d6$ $\square e6$ 25
 $\square g4$ h5 26 $\square g5$ $\square x a7$ 27 $\square e5$ $\square a5$ 28 a3
 $\square x e5$ 29 $a \times b4$ $\square c2$ 30 $\square x b6$ $\square x e2$ 31 $\square b8t$
 $\square h7$ 32 $\square d8$ $\square f5$ 33 h4 $\square x b2$ 34 $\square f1$ e3
0-1

Fidelity — Lachex
C80/03 07 Kh1

1 e4 e5 2 $\square f3$ $\square c6$ 3 $\square b5$ a6 4 $\square a4$ $\square f6$ 5
d4 exd4 6 O-O $\square x e4$ 7 $\square h1$ $\square c5$ 8 $\square b2d2$
 $\square x d2$ 9 $\square x d2$ O-O 10 $\square f4$ $\square e8$ 11 $\square g5$ $\square f6$
12 $\square f3$ d5 13 $\square g3$ h6 14 $\square f3$ $\square d6$ 15 $\square x d6$
cxd6 16 $\square a1$ $\square e4$ 17 $\square d2$ $\square f4$ 18 $\square d e1$
 $\square e6$ 19 $\square a3$ $\square x f2$ 20 $\square x d6$ $\square e7$ 21 $\square x e7$
 $\square x f1t$ 22 $\square x f1$ $\square x e7$ 23 $\square f3$ b5 24 $\square b3$ a5
25 a4 $b \times a4$ 26 $\square a4$ $\square f5$ 27 $\square d1$ $\square b8$ 28
 $\square b1$ $\square b4$ 29 b3 $\square e3$ 30 $\square c1$ $\square f8$ 31 $\square e5$
 $\square f5$ 32 $\square c6$ $\square x c2$ 33 $\square x b4$ $a \times b4$ 34 $\square e1$ $\square e4$
35 $\square e2$ d3 36 $\square d2$ $\square x g2$ 37 $\square g1$ $\square e1$ 38
 $\square f1$ $\square f3$ 39 $\square a2$ d2 40 $\square e2$ f5 41 $\square d1$ d4
42 $\square b5$ $\square d5$ 43 $\square c4$ $\square x c4$ 44 $b \times c4$ g5 45 h3
 $\square e8$ 46 $\square b2$ g4 47 $h \times g4$ $f \times g4$ 48 $\square x b4$ g3 49
 $\square b8t$ $\square d7$ 50 $\square b1$ g2 51 $\square e2$ g1 52 $\square x g1$
 $\square x g1t$ 53 $\square x d2$ h5 0-1

Bebe — Belle
C80/01 12 Nd3

1 e4 e5 2 $\square f3$ $\square c6$ 3 $\square b5$ a6 4 $\square a4$ $\square f6$ 5
O-O $\square x e4$ 6 $\square e1$ $\square c5$ 7 $\square x e5$ $\square e7$ 8 $\square x c6$
dxc6 9 d4 $\square e6$ 10 $\square e3$ O-O 11 $\square c3$ f6 12
 $\square d3$ $\square e8$ 13 $\square h5$ g6 14 $\square a5$ $\square x d4$ 15
 $\square x d4$ $\square x d4$ 16 $\square x c7$ $\square d7$ 17 $\square x d7$ $\square x d7$
18 $\square e2$ $\square d8$ 19 $\square c5$ $\square x e2$ 20 $\square x e2$ $\square c8$ 21
 $\square d1$ $\square e7$ 22 $\square d7$ $\square a7$ 23 h3 $\square f7$ 24 b3 b5
25 $\square b6$ $\square e6$ 26 $\square d4$ $\square b7$ 27 $\square x e6$ $\square x e6$ 28
 $\square e1t$ $\square f7$ 29 $\square c8$ $\square c5$ 30 $\square d1$ $\square e6$ 31 c3
a5 32 a3 $\square x a3$ 33 $\square a1$ b4 34 $c \times b4$ $\square x b4$ 35
 $\square d1$ $\square c5$ 36 $\square c1$ $\square b5$ 37 g3 $\square d7$ 0-1

Challenger — Ostrich
B31/15 08. a6

1 e4 c5 2 d5 b5 g6 4 O-O g7 5
 c3 f6 6 e1 O-O 7 d4 cxd4 8 cxd4 a6 9
 d3 d6 10 c3 g4 11 e3 f3 12 xf3
 d7 13 d5 b4 14 xe2 xc3 15 bxc3 dxd3
 16 xd3 e5 17 xd4 xd7 18 f4 f6 19
 ab1 f7 20 b6 c8 21 eb1 g4 22 g3
 c4 23 xd2 xe4 24 xb7 d7 25 e1
 f5 26 f3 c5 27 d1 c4 28 h1 a5 29
 a7 a4 30 b2 c5 31 b8t f8 32 xc7
 c2 33 xe7 xd1t 34 e1 xe1t 35
 xe1 a2 36 h3 a4 37 e7 1-0

Merlin — Chiptest
C02/01 05 Be3

1 e4 e6 2 d4 d5 3 e5 b6 4 c3 xd7 5 xe3
 c6 6 d2 f6 7 d3 xe5 8 dx5 e5 9
 h5t f7 10 g3f3 f6 11 h4 e5 12 d5
 e4 13 dxf7 xf7 14 b5t d7 15 dxd7
 xd7 16 g5 e7 17 xf6 xf6 18 h5t
 g6 19 xe2 O-O 20 xe3 a4 21 O-O c2
 22 ab1 ae8 23 b3 e5 24 fc1 xd3 25
 xd3 exd3 26 d4 c5 27 b5 e2 28 e1
 f7 29 xe2 dx2 30 e1 e7 31 a4 d4 32
 cxd4 cxd4 33 a3 d3 34 b1 g5 35 f4
 xf4 36 g3 e3t 37 g2 f7 38 c3 f2t
 39 h3 d2 40 xe2 e2 41 a5 bxa5 0-1

Waycool — Rex
B03/03 05. N8d7

1 e4 d6 2 e5 d5 3 d4 d6 4 c4 b6 5 exd6
 d8d7 6 dx7 xe7t 7 xe2 c5 8 d3 cxd4 9
 xe7t e7 10 b3 b4t 11 d2 c5 12 b4
 d6 13 a4 O-O 14 a5 e8t 15 d1 xc4
 16 xc4 e5 17 e1 f8 18 g5 h6 19
 xf7 xh2 20 xe8t xe8 21 a3 e5 22
 d6t e7 23 dxc8t xc8 24 d5 c7 25
 b5 d7 26 a2 a6 27 a3 g4 28 g5t
 hg5 29 e1 g1 30 f3 e3 31 d2 f2 32
 g4 g6 33 h1 f6 34 h8 d3 35 f8t e5
 36 c4t d4 37 b6 f1t 38 d1 d6 39
 g8 e3t 40 d2 c2 41 c8 e1t 42
 d1 b4 43 e8 e3t 44 xe3 xe3 45
 xd6 xd6 d5 b4 47 e4 1-0

Round 5
Chiptest — Recom
A44/11 05 Nf3

1 d4 c5 2 d5 e5 3 e4 d6 4 c3 g6 5 d3
 g7 6 g5 f6 7 e3 e7 8 b5t d7 9
 O-O O-O 10 h6 g7 11 xg7 xg7 12
 xd3 b6 13 a4 f5 14 fd1 xe4 15 xe4 a6
 16 f1 f4 17 d3 f5 18 xd2 g4 19
 e2 b4 20 b3 h6 21 a5 d7 22 h3 xf3 23

xf3 d4 24 xe2 d6 25 d3 xd7 26 e1
 c7 27 a1 c4 28 bxc4 xc4 29 a3 c5 30
 e3 xa5 31 xa5 32 xd2 al 33
 h2 f5 34 g4 d4 35 e2 xf3t 36 xf3
 a5 37 c3 f8 38 f4 e4 39 c7t f7 40
 xf7t xf7 41 xe3 a4 42 xe5 xc2 43
 e6t e7 44 g1 d1t 45 h2 xd5 46
 xh6 xe6 47 g7t f7 48 d4 xf3 49
 g7t d8 50 g8t c7 51 g7t b8 52
 hb8t a7 53 d4t b6 54 c4 xf2t 55
 h1 xe2 56 xe2 g3t 57 g2 xe2 58
 f3 a4 59 xe2 a3 60 e3 1-0

Phoenix — Fidelity
D00/05 04. Bd6

1 d4 d6 2 g5 d5 3 xf6 xf6 4 e3 d6 5
 c4 dx4 c5 7 dx5 a5t 8 d2 xc5
 9 d6f3 d6 10 O-O d5 11 dxe5 xe5 12
 b3 c7 13 b5t e7 14 c1 b6 15 dxc5
 bxc5 16 b4 d6 17 xd6t xd6 18 f1t
 e7 19 xc5 e6 20 xe5 f6 21 f4 xa2
 22 d6t e6 23 f2 hc8 24 c5 ab8 25
 d3 g6 26 e4 e7 27 e5 f6 28 a6 xb4 29
 xe6t xe6 30 xc8 xf4t 31 e3 xe5 32
 c6t d5 33 a6 f7 34 e4t c5 35
 c6t b4 36 e6 a5 37 xe5 c7 38 f3
 d7 39 e4t b3 40 d4 xd4 41 d4
 a4 42 d1t b4 43 d3 h6 44 c2 a3 45
 b1 c3 46 a2 h5 47 b3 g5 48 xa3
 h4 49 h3 d3 50 b4 d4 51 b5 e4 52
 c2t d5 53 d1 d6 54 f3 e6 55
 c6 e5 56 g4 f4 57 d6 g3 58 f3
 1-0

Cyrus — Ostrich
B22/01 02. b6

1 e4 c5 2 c3 b6 3 d4 b7 4 d3 cxd4 5 cxd4
 d6 6 c3 e6 7 e3 b4 8 f3 xc3t 9 bxc3
 e7 10 d2 11 e5 fd7 12 a4 h4t
 13 g3 h5 14 O-O g5 15 f4 h6 16 ad1 a6
 17 a3 c6 18 f5 exf5 19 xf5 d7 20 f2
 h3 21 df1 f8 22 f3 c6 23 h1 a5 24
 d6 b5 25 c7 a4 26 a3 g4 27 d6
 h3 28 f3f2 h5 29 f6 h3 30 g1
 g4 31 h6 b8 32 h3 c8 33 c5
 e7 34 xg5 d7 35 xe7 a6 36 xc6
 xc6 37 xc6 xe7 38 xb5 b8 39 c5
 a7 40 xd5 b7 41 c4 1-0

Belle — Challenger
B39/04 17 Rad1

1 e4 c5 2 d3 c6 3 d4 cxd4 4 dxd4 g6 5
 c4 g7 6 e3 d6 7 c3 d4 8 xg4

$\mathbb{Q} \times d4$ 9 $\mathbb{W}d1$ e5 10 $\mathbb{Q}b5$ O-O 11 $\mathbb{W}d2$ $\mathbb{W}h4$
 12 $\mathbb{Q}d3$ d5 13 cxd5 $\mathbb{Q} \times b5$ 14 $\mathbb{Q} \times b5$ $\mathbb{W} \times e4$ 15
 O-O $\mathbb{E}d8$ 16 d6 $\mathbb{Q}e6$ 17 $\mathbb{E}ad1$ $\mathbb{Q} \times a2$ 18 $\mathbb{Q}g5$
 f6 19 $\mathbb{Q}e3$ $\mathbb{Q}b3$ 20 $\mathbb{W}d3$ $\mathbb{W} \times d3$ 21 $\mathbb{E} \times d3$ $\mathbb{Q}e6$
 22 $\mathbb{E}a1$ a6 23 d7 $\mathbb{Q}f8$ 24 $\mathbb{Q}a4$ e4 25 $\mathbb{E}d2$ b5
 26 $\mathbb{Q} \times b5$ axb5 27 $\mathbb{E} \times a8$ $\mathbb{E} \times a8$ 28 d8 $\mathbb{W} \times t$ $\mathbb{E} \times d8$
 29 $\mathbb{E} \times d8t$ $\mathbb{Q}f7$ 30 $\mathbb{E}b8$ $\mathbb{Q}d7$ 31 $\mathbb{Q}d4$ h5 32
 h4 $\mathbb{Q}e8$ 33 $\mathbb{E}b7t$ $\mathbb{Q}f8$ 34 $\mathbb{Q}h2$ $\mathbb{Q}h8$ 35 $\mathbb{Q}g3$
 $\mathbb{Q}g7$ 36 $\mathbb{Q}c3$ e3 37 $\mathbb{W} \times e3$ $\mathbb{Q}g8$ 38 e4 $\mathbb{Q}c6$ 39
 $\mathbb{E}b6$ $\mathbb{Q} \times e4$ 40 $\mathbb{Q} \times f6$ $\mathbb{Q} \times f6$ 41 $\mathbb{E} \times f6$ $\mathbb{Q}g7$ 42
 $\mathbb{E}b6$ $\mathbb{Q}d3$ 43 b3 $\mathbb{Q}e2$ 44 $\mathbb{E}d6$ $\mathbb{Q}f7$ 45 $\mathbb{Q}f4$
 $\mathbb{Q}g4$ 46 $\mathbb{E}d5$ b4 47 $\mathbb{E}b5$ $\mathbb{Q}e6$ 48 $\mathbb{E} \times b4$ $\mathbb{Q}f6$
 49 g3 $\mathbb{Q}f7$ 50 $\mathbb{E}b6t$ $\mathbb{Q}e7$ 51 $\mathbb{Q}e5$ 1-0

Merlin — Waycool
 B22/09 14 Ne2

1 e4 c5 2 c3 $\mathbb{Q}f6$ 3 e5 $\mathbb{Q} \times d5$ 4 d4 cxd4 5 $\mathbb{Q}f3$
 $\mathbb{Q}c6$ 6 cxd4 d6 7 $\mathbb{Q}c4$ $\mathbb{Q}b6$ 8 $\mathbb{Q}b5$ d5 9 $\mathbb{Q}c3$
 $\mathbb{Q}g4$ 10 h3 $\mathbb{Q} \times f3$ 11 $\mathbb{W} \times f3$ e6 12 O-O $\mathbb{Q}e7$ 13
 $\mathbb{W}g3$ $\mathbb{Q}f8$ 14 $\mathbb{Q}e2$ $\mathbb{E}c8$ 15 $\mathbb{Q}f4$ $\mathbb{Q}b4$ 16 $\mathbb{Q}d2$
 $\mathbb{Q}c2$ 17 $\mathbb{E}ac1$ a6 18 $\mathbb{Q}d3$ $\mathbb{Q}b4$ 19 $\mathbb{E} \times c8$ $\mathbb{W} \times c8$
 20 $\mathbb{E}c1$ $\mathbb{Q}c4$ 21 b3 $\mathbb{Q} \times a2$ 22 $\mathbb{E}c2$ b5 23 $\mathbb{E} \times a2$
 $\mathbb{Q} \times d2$ 24 $\mathbb{E} \times d2$ $\mathbb{Q}g8$ 25 $\mathbb{E}c2$ $\mathbb{W}a8$ 26 $\mathbb{Q}f4$
 $\mathbb{W}d8$ 27 $\mathbb{Q}h5$ g6 28 $\mathbb{E}c6$ $\mathbb{W}a8$ 29 $\mathbb{E}c7$ $\mathbb{W}d8$
 30 $\mathbb{E}a7$ $\mathbb{Q}f8$ 31 $\mathbb{Q}f6$ $\mathbb{Q} \times f6$ 32 $\mathbb{E} \times f6$ $\mathbb{W} \times f6$ 33
 $\mathbb{W}d6t$ $\mathbb{Q}g7$ 34 $\mathbb{W}c5$ $\mathbb{W}f4$ 35 $\mathbb{E} \times a6$ e5 36 $d \times e5$
 $\mathbb{W} \times e5$ 37 $\mathbb{Q} \times b5$ $\mathbb{E}b8$ 38 b4 $\mathbb{W} \times e1t$ 39 $\mathbb{Q}h2$
 $\mathbb{W}e4$ 40 $\mathbb{E}a7$ $\mathbb{W}e5t$ 41 g3 $\mathbb{W}f6$ 42 $\mathbb{Q}g2$ $\mathbb{W}b6$
 43 $\mathbb{W} \times b6$ $\mathbb{E} \times b6$ 44 $\mathbb{E}a5$ d4 45 $\mathbb{Q}f3$ f5 46 $\mathbb{Q}e2$
 h5 47 $\mathbb{Q}d3$ $\mathbb{E}d6$ 48 $\mathbb{E}a6$ $\mathbb{E}d8$ 49 $\mathbb{Q}c4$ g5 50
 $\mathbb{E}a7t$ $\mathbb{Q}f6$ 51 $\mathbb{E}f7t$ $\mathbb{Q}g6$ 52 b5 h4 53 b6
 $\mathbb{W}g3$ 54 $f \times g3$ f4 1-0

Lachex — Bebe
 B22/17 06. Bd7

1 e4 c5 2 c3 d5 3 exd5 $\mathbb{W} \times d5$ 4 d4 e6 5 $\mathbb{Q}f3$
 $\mathbb{Q}c6$ 6 $\mathbb{Q}a3$ $\mathbb{Q}d7$ 7 $\mathbb{Q}c4$ $\mathbb{W} \times e4t$ 8 $\mathbb{W}e2$ $\mathbb{W} \times e2t$
 9 $\mathbb{Q} \times e2$ cxd4 10 $\mathbb{Q}b5$ O-O-O 11 cxd4 $\mathbb{Q}b4t$
 12 $\mathbb{Q}c3$ $\mathbb{Q}e8$ 13 $\mathbb{Q}e3$ $\mathbb{Q} \times e7$ 14 O-O $\mathbb{Q}g6$ 15
 $\mathbb{E}ad1$ $\mathbb{Q}b8$ 16 a3 $\mathbb{Q}d6$ 17 d5 exd5 18 $\mathbb{E} \times d5$
 $\mathbb{Q}f4$ 19 $\mathbb{E} \times d6$ $\mathbb{Q} \times e2t$ 20 $\mathbb{Q} \times e2$ $\mathbb{E} \times d6$ 21 $\mathbb{Q}f4$
 $\mathbb{Q}c8$ 22 $\mathbb{Q} \times d6$ $\mathbb{Q}d7$ 23 $\mathbb{E}c1$ $\mathbb{Q}g4$ 24 $\mathbb{Q}ed4$
 $\mathbb{Q}c8$ 25 $\mathbb{W} \times f3$ $\mathbb{Q}d7$ 26 $\mathbb{Q} \times c6$ bxc6 27 $\mathbb{E}d1$
 $\mathbb{Q}c8$ 28 $\mathbb{Q}f4$ $\mathbb{E}d8$ 29 $\mathbb{E} \times d8t$ $\mathbb{Q} \times d8$ 30 b4 a6
 31 $\mathbb{Q}f1$ $\mathbb{Q}e7$ 32 $\mathbb{Q}e2$ $\mathbb{Q}e6$ 33 $\mathbb{Q}d3$ $\mathbb{Q}d5$ 34
 $\mathbb{Q}e3$ g6 35 a4 h5 36 h4 f6 37 f4 f5 38 $\mathbb{Q}b6$
 $\mathbb{Q}e6$ 39 $\mathbb{Q}c4$ $\mathbb{Q}d6$ 40 f3 1-0

Novag — Mephisto
 B14/09 06. Bb4

1 e4 c6 2 d4 d5 3 exd5 cxd5 4 c4 $\mathbb{Q}f6$ 5 $\mathbb{Q}c3$
 e6 6 $\mathbb{Q}f3$ $\mathbb{Q}b4$ 7 $\mathbb{Q}d2$ O-O 8 $\mathbb{Q}d3$ dxc4 9
 $\mathbb{Q} \times c4$ $\mathbb{Q}c6$ 10 a3 $\mathbb{Q}e7$ 11 $\mathbb{Q}f4$ $\mathbb{Q}d6$ 12 $\mathbb{Q} \times d6$

$\mathbb{W} \times d6$ 13 O-O $\mathbb{E}d8$ 14 $\mathbb{Q}b5$ $\mathbb{W}e7$ 15 $\mathbb{E}c1$ a6
 16 $\mathbb{Q}c3$ $\mathbb{W}d6$ 17 $\mathbb{Q}e2$ b6 18 $\mathbb{W}c2$ $\mathbb{Q}b7$ 19
 $\mathbb{E}fe1$ $\mathbb{Q}a5$ 20 $\mathbb{Q}e5$ $\mathbb{E}ac8$ 21 $\mathbb{W}a4$ $\mathbb{Q} \times c4$ 22
 $\mathbb{Q} \times c4$ $\mathbb{W}d5$ 23 $\mathbb{Q}e3$ $\mathbb{W}g5$ 24 $\mathbb{E} \times c8$ $\mathbb{E} \times c8$ 25
 $\mathbb{E}c1$ $\mathbb{E} \times c1t$ 26 $\mathbb{Q} \times c1$ $\mathbb{W}f4$ 27 $\mathbb{Q}e2$ $\mathbb{W}d6$ 28
 $\mathbb{W}c4$ $\mathbb{Q}f8$ 29 h3 h6 30 $\mathbb{W}d3$ h5 31 $\mathbb{Q}c3$ b5 32
 b4 $\mathbb{Q}e7$ 33 $\mathbb{W}e2$ g6 34 $\mathbb{W}d2$ $\mathbb{Q}c7$ 35 $\mathbb{W}c2$
 $\mathbb{W}c6$ 36 $\mathbb{W}d3$ $\mathbb{Q}f8$ 37 $\mathbb{Q}f1$ $\mathbb{W}c7$ 38 $\mathbb{Q}g1$
 $\mathbb{W}d6$ 39 $\mathbb{W}d2$ $\mathbb{Q}g7$ 40 $\mathbb{W}d3$ 1-0

Rex — Vaxchess
 B22/15 05. Nf6

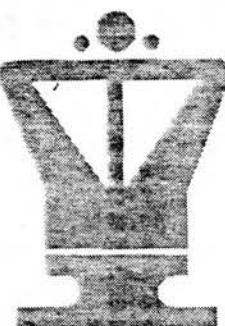
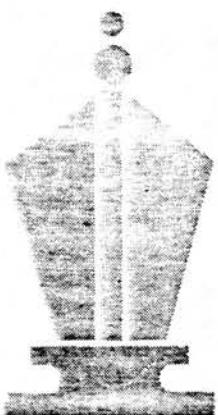
1 e4 c5 2 c3 d5 3 exd5 $\mathbb{W} \times d5$ 4 d4 e6 5 $\mathbb{Q}f3$
 $\mathbb{Q}f6$ 6 $\mathbb{Q}a3$ $\mathbb{Q}c6$ 7 $\mathbb{Q}b5$ $\mathbb{Q}d6$ 8 dxc5 $\mathbb{W} \times d1t$
 9 $\mathbb{Q} \times d1$ $\mathbb{Q}b8$ 10 $\mathbb{Q}e3$ O-O 11 $\mathbb{Q}c1$ a6 12
 $\mathbb{Q}bd4$ $\mathbb{Q}d7$ 13 $\mathbb{Q}c4$ $\mathbb{Q} \times d4$ 14 cxd4 $\mathbb{Q}c6$ 15 h3
 $\mathbb{Q} \times f3$ 16 $\mathbb{W} \times f3$ $\mathbb{E}d8$ 17 $\mathbb{E}e1$ $\mathbb{Q}f8$ 18 h4 $\mathbb{Q}h2$ 19
 h5 b5 20 cxb6 $\mathbb{E}ac8$ 21 b3 h6 22 $\mathbb{Q}b2$ $\mathbb{Q}d6$
 23 $\mathbb{Q} \times a6$ $\mathbb{E}c6$ 24 $\mathbb{Q}c4$ $\mathbb{E} \times b6$ 25 $\mathbb{E}h1$ $\mathbb{E}c8$ 26
 $\mathbb{E}ac1$ $\mathbb{E}a8$ 27 $\mathbb{Q}b1$ $\mathbb{E}bb8$ 28 $\mathbb{Q}d2$ $\mathbb{E}a4$ 29
 $\mathbb{E}c2$ $\mathbb{E}a3$ 30 f4 $\mathbb{Q}e4$ 31 $\mathbb{Q}c1$ $\mathbb{E}a5$ 32 $\mathbb{Q}e3$ $\mathbb{Q}f6$
 33 $\mathbb{Q}e2$ $\mathbb{Q}d5$ 34 $\mathbb{E}h4$ $\mathbb{Q}b4$ 35 $\mathbb{Q}c4$ $\mathbb{Q}e7$ 36
 $\mathbb{E}h1$ $\mathbb{Q}f6$ 37 $\mathbb{Q}e2$ $\mathbb{Q}d6$ 38 $\mathbb{E}c6$ $\mathbb{Q}e7$ 39 $\mathbb{E}hc1$
 $\mathbb{E}d8$ 40 $\mathbb{E}c8$ $\mathbb{Q} \times h5$ 41 $\mathbb{E}ic7$ $\mathbb{Q}f6$ 42 $\mathbb{Q}c4$ $\mathbb{Q}e8$
 43 $\mathbb{E} \times d8$ $\mathbb{Q} \times d8$ 44 $\mathbb{E}c8$ $\mathbb{Q}e7$ 45 $\mathbb{Q}d2$ $\mathbb{E}h5$ 46
 a4 $\mathbb{Q}b6$ 47 $\mathbb{Q}e3$ $\mathbb{Q}d6$ 48 $\mathbb{E}c6$ $\mathbb{Q}a5$ 49 $\mathbb{E}c5$
 $\mathbb{E} \times c5$ 50 dxc5 $\mathbb{Q} \times c4$ 51 bxc4 h5 52 $\mathbb{Q}b2$ h4
 53 f3 h3 54 $\mathbb{Q}g1$ $\mathbb{Q}d2$ 55 $\mathbb{Q}h2$ $\mathbb{Q}d7$ 56 f5
 $\mathbb{E} \times f5$ 57 $\mathbb{Q}b3$ $\mathbb{Q}e3$ 58 $\mathbb{Q}b4$ $\mathbb{Q}c6$ 59 $\mathbb{Q}c3$ $\mathbb{Q} \times c5$
 60 a5 g5 61 $\mathbb{Q}b3$ g4 62 $\mathbb{W} \times g4$ $\mathbb{Q}d6$ 63 $\mathbb{Q}g1$
 $\mathbb{W}g4$ 64 a6 h2 65 $\mathbb{Q} \times h2$ $\mathbb{Q} \times h2$ 0-1

MEETING REPORT

Belle and Mephisto Dallas Capture Computer Chess Titles at the FJCC

Danny Kopec San Diego State University

Monty Newborn McGill University



BELLE, a computer program developed by Ken Thompson and Joseph Condon of AT&T Bell Laboratories, captured first-place in this year's Seventeenth North American Computer Chess Championship and MEPHISTO DALLAS, developed by Richard Lang took first-place honors at the Sixth World Microcomputer Chess Championship.

The two major computer chess championships were held at the ACM/IEEE Computer Society's Fall Joint Computer Conference in Dallas. The ACM's NACCC was held in the Anatole Hotel and the WMCC took place in the Dallas Infomart. The two tournaments together made this the world's largest computer chess event: a total of 40 games in the NACCC and 49 games in the WMCC were played for a total of 89 games over a six day period. The WMCC took place during the days, while the evenings were devoted to the ACM's NACCC. Some programs participated in both tournaments.

Chess trees averaging 1,000,000 positions were searched on each move. With games lasting an average of fifty moves, a total of approximately $50 \times 2 \times 1,000,000 \times (40 + 49) = 890,000,000,000$ chess positions were searched by the programs during the course of the approximately 8900 moves played, making this event one of the great experimental efforts in computer science. Robert Tarjan, when receiving the Turing Award at the conference, noted the need for more such experimental work to complement the efforts being made in the theoretical analysis of complex algorithms.

The Seventeenth North American Computer Chess Championship

Ken Thompson and Joe Condon's BELLE came out of retirement and won all five of its games to capture first place at the NACCC's tournament. All games went to the endgame where BELLE outplayed its opponents, even in positions where it was behind in material. It is not clear how much the program was either improved, or had bugs eliminated which hurt it in tournaments in 1983-4. Thompson and Condon spent little time working on BELLE over the last two years. Thompson, in particular, devoted his energies instead to developing databases for chess endgames such as KQ vs. KR, KBB

vs. KN, KQP vs. KO, etc. His findings have surprised the chess world and have forced FIDE, the world's governing chess organization to change the rules of chess.

Thompson, an avid pilot, flew to the conference from his home base at AT&T Bell Laboratories in Murray Hill, New Jersey. He simply planned to enjoy watching the event. But at the urging of the other participants, he entered BELLE at the last minute when CRAY BLITZ withdrew because it was unable to get computer time. Earlier in the year, CRAY BLITZ won the Fifth World Computer Chess Championship in Cologne, West Germany. HITECH, the winner of last year's ACM tournament, also skipped this year's event. Hans Berliner, preoccupied with making major revisions in his HITECH program, passed up this year's tournament. Thus, the showdown expected between CRAY BLITZ and HI-TECH failed to materialize, but BELLE's excellent play made one almost forget their absence.

BELLE won the \$2000 first place prize, the winner's trophy, and possession for the year of the CDC Plaque. Finishing in second place was LACHEX, the work of Burt Wendorff and Tony Warnock of Los Alamos National Laboratory. Third place went to David Kittinger's program, NOVAG EXPERIMENTAL.

A total of sixteen teams participated, including entries from Canada, England, Holland, West Germany, Denmark, and the United States; all used computers located in North America. Four multiprocessing systems participated: PHOENIX used 20 SUN-3 workstations located at SUN Microsystems, in Mountain View, Calif., FIDELITY EXPERIMENTAL used 28 6502's and one Z-80. OSTRICH ran on an 8-processor Data General system, and WAYCOOL, a new program developed at Cal Tech, used a 128-processor N-cube. Three programs, BELLE, BEBE, and CHIPTEST, took advantage of specially designed circuitry that generated moves and scored positions at high speeds. Six entries used single microprocessors. At the other extreme, LACHEX used a Cray X/MP.

The Sixth World Microcomputer Chess Championship

The level of play at this year's microcomputer chess championships was very strong, approximately equivalent to that of the NACCC just a few years ago. MEPHISTO DALLAS 3 captured the \$2000 first place prize, winning six of seven points. Fidelity International's FIDELITY "2533" won the runner-up position with a score of five and one half points. MEPHISTO DALLAS 2 was third with five and one half points.

1987 TOURNAMENT RESULTS ACM's Seventeenth North American Computer Chess Championship

	1	2	3	4	5	total
1 BELLE	15+■	2+□	6+■	4+■	7+□	5
2 LACHEX	9+□	1-■	13+□	10+■	4+□	4
3 NOVAG	7-□	16+■	12=□	8-■	6+□	3½
4 BEBE	11+□	12+■	8+■	1-□	2-■	3
5 PHOENIX	8-□	9-■	15+□	13+■	10+□	3
6 MEPHISTO	13+□	10-■	1-□	9+□	3-■	2½
7 CHALLENGER	3+■	8-□	9-■	14+□	1-■	2½
8 RECOM	5+■	7+■	4-□	3-□	11-■	2½
9 CYRUS	2-■	5+□	7=□	6-■	14+□	2½
10 FIDELITY	16+■	6-□	14+■	2-□	5-■	2½
11 CHIPTEST	4-■	14-□	16+□	12+■	8-□	2½
12 MERLIN	14-■	4-□	3=■	11-□	15+□	2
13 VAXCHESS	6-■	15+□	2-■	5-□	16+■	2
14 OSTRICH	12-□	11+■	10-□	7-■	9-■	1½
15 WAYCOOL	1-□	13-■	5-■	16-□	12-■	½
16 REX	10-□	3-□	11-■	15-■	13-□	½

The Sixth World Microcomputer Chess Championship

	1	2	3	4	5	6	7	total
1 MEPHISTO 3	11+■	7+□	4+□	2+■	8+□	9+■	6-□	6
2 FIDELITY A	14+□	3+■	5+■	1-□	6-■	8+□	12-■	5½
3 MEPHISTO 2	10+□	2-□	6=■	11+■	7-□	13+■	4+■	5
4 FIDELITY C	9+□	6+□	1-■	8-■	5+□	12+■	3-□	4½
5 MEPHISTO 1	8+□	10+■	2-□	7+□	4-■	11+■	9-□	4½
6 RECOM A	12+□	4-■	3-□	10+■	2-□	7-■	1-■	4
7 FIDELITY B	13+□	1-■	12+□	5-■	3-■	6+□	10-□	3½
8 RECOM C	5-■	14+□	11+■	4-□	1-■	2-■	13+□	3½
9 RECOM B	4-■	11-□	14+■	12+■	10+□	1-□	5-■	3½
10 CYRUS B	3-■	5-□	13+■	6-□	9-■	14+□	7+■	3
11 CYRUS A	1-□	9+■	8-□	3-□	13=■	5-□	14+■	2½
12 CYRUS C	6-■	13+□	7-■	9-□	14+■	4-□	2-□	2
13 CHESS MONSTER	7-■	12-■	10-□	14+■	11=□	3-□	8-■	1½
14 KEMPELEN	2-■	8-■	9-□	13-□	12-□	10-■	11-□	0

Computing System Information ACM's
Seventeenth North American Computer Chess Championship

Program	Computing system and language	Book	Nodes per second
BEBE	SYS-10 Chess Engine*, assembler, 65Kb, 16 bits, 10 mips. (Tony Scherzer, Linda Scherzer)	4K	40K
BELLE	PDP 11/23 with special chess circuitry, at AT&T Bell Laboratories, Murray Hill, New Jersey. (Ken Thompson, Joe Condon)	400K	150K
CHESS CHALLENGER EXPERIMENTAL	28 6502-based microprocessors controlled by a Z-80. (Ron Nelson, Dan Spracklen, Kathe Spracklen, Danny Kopec, Boris Baczynskyj)	16K+	NA
CHIPTEST	SUN 3 plus high speed move generator, assembler, at Carnegie-Mellon Univ. (Thomas Anantharamam, Feng-hsiung Hsu)	NA	150K
CYRUS 68K	68020-based microcomputer*, assembler. (Mark Taylor, David Levy, Kevin O'Connell)	16K	4K
FIDELITY EXPERIMENTAL	68020-based microcomputer*, assembler. (Dan Spracklen, Kathe Spracklen, Danny Kopec)	30K	NA
LACHEX	Cray X-MP 48, Fortran and assembler, at Cray Research, Chippewa Falls, Minnesota. (Tony Wamock, Burt Wendroff)	4K	50K
MEPHISTO MOTOROLA	68020-based microcomputer*, assembler, 64 Kb RAM, 32 bits, 4 mips. (Richard Lang)	NA	NA
MERLIN	IBM 3081, Pascal, 12 mips, at IBM Dallas. (Hermann Kaindl, Marcus Wagner, and Helmut Horacek)	6K	0.6K
NOVAG EXPERT EXPERIMENTAL	6502-based microcomputer*, assembler, 56 Kb ROM. (David Kittinger)	22K+	2-3K
OSTRICH	8 DG computers: 1 Eclipse S/120, 6 Nova 4's, 1 Nova 3, on high speed DMA bus, 64 Kb/computer, 16 bits, 1mips/computer. at McGill University. (Monty Newborn)	4K+	2K
RECOM-REBEL 87	6502 gate array processor*, assembler. (Ed Schroder)	NA	NA
REX III	Intel 80286-based microcomputer*, Pascal. (Don Dailey)	0.1K+	0.3K
SUN PHOENIX	20 SUN 3 Workstations, C, at SUN Microsystems, Mountain View, California. (Jonathan Schaeffer, Marius Olaffson)	0.8K	20K
VAXCHESS	Microvax 2*, C + assembler. (Tony Guifoyle, Richard Hooker)	14K	1K
WAYCOOL	N-cube (128 processors @ 128Kb/proc., 1 mips/proc), at Cal Tech. (Ed Felton, Rod Morrison, Steve Otto)	15K	14K

* Computer was at site.

A total of fourteen teams representing six commercial concerns participated in the seven round Sixth World Microcomputer Chess Championship. This included three entries from Hegener and Glaser AG of West Germany, which used a program developed by Richard Lang, three from Fidelity International, Inc., of Miami, Florida (Dan Spracklen, Kathe Spracklen, Ron Nelson, with book openings by Danny Kopec and Boris Baczynskyj), three from E. G. H. Schroeder of The

Netherlands, three from Intelligent Chess Software Ltd., of London, England, and one each from Enlightenment, Inc., of the United States, and Andromeda Software, Inc., of the United States. The program used by Andromeda Software was developed in Hungary by Gyula Horvath. There was a limit of three entries from any single commercial concern.

The Dallas chess club provided assistance during the tournament. Glenn Sharpe and Kermit Poulaas helped

Computing System Information
Sixth World Microcomputer Chess Championship

Program	Computing system	Organization
ATARI KEMPELEN	Atari ST, 68000-based microcomputer	Andromeda Software, Inc.
CHESS MONSTER	IBM PC, 8086-based microcomputer	Enlightenment, Inc.
CYRUS 68K A	68020-based microcomputer	Intelligent Chess Software Ltd.
CYRUS 68K B		
CYRUS 68K C		
FIDELITY "2533" A	68020-based chess machine	Fidelity International Inc.
FIDELITY "2533" B		
FIDELITY "2533" C		
MEPHISTO DALLAS 1	68020-based chess machine	Hegener and Glaser
MEPHISTO DALLAS 2		
MEPHISTO DALLAS 3		
RECOM-DEVENTER A	6502-based microcomputer	E. Schroder
RECOM-DEVENTER B		
RECOM-DEVENTER C		

with local arrangements. Mike Valvo served as tournament director for both events and Tony Marsland acted as assistant director.

Data on the participants in both tournaments, the results of both tournaments, as well as other major tournaments in past years, are given following the presentation of some of BELLE's play.

Next Year

The eighteenth NACCC will be held next year at the

FJCC. Plans are for a four round event, with the first two rounds on Sunday, October 25, one on Monday, October 26, with the final round on Tuesday, October 27. The winning entry will receive a \$2000 prize. Tony Marsland will be the moderator at a technical session. For further information or application forms, please write to Monty Newborn, School of Computer Science, McGill University, 805 Sherbrooke Street West, Montreal, Quebec, Canada H3A 2K6 (514-398-7979).

BELLE
In winning the tournament with a perfect 5-0 score, BELLE played three particularly interesting games. Below, we annotate fully its game with runner-up LACHEX, and present two endgames which BELLE won from seemingly inferior positions or material deficits.

Round 5 ACM's Seventeenth NACCC

BELLE versus LACHEX C24/05

04.Bb4

1. e4 e5 2. Bc4 Nf6 3. d4
BELLE's second move defined the Bishop's Opening which usually leads to tamer play in modern tournament practice. Recent practitioners, including grandmasters Nunn and Larsen, prefer a slow central and a queen-side buildup for White with 3. d3, 4. Nf3, O-O, c3, followed by d4 or b4. Instead with the text move BELLE enters

an open game, which nonetheless should not lead to any advantage for White.

3. ... exd4 4. Nf3 Bb4+?!

This move takes the game out of theory, and is inferior because White can now force play. Normal here are 4. ... d5 and 4. ... Nxe4.

A continuation after the former move leading to equality according to the Encyclopedia of Chess Openings, Vol C/col. 24, pg. 130, is: 4. ... d5 5. exd5 Bb4+ 6. c3 Qe7+ 7. Kf1 dxc3 8. Nxc3

O-O 9. Bg5 h6 10. Bh4 Bf5 11. Qxd4 Nbd7 which occurred in Estrin-Vataikov, USSR, 1961.

5. c3 dxc3 6. bxc3 Bc5 7. e5 Qe7

8. Be3??

A clever move, but not the best. Black would be hard pressed after simply 8. O-O; then on 8. ... Ne4 9. Bd5 (or 9. Qd3) would be strong for White; on 8. ... Ng4 9. Bg5; finally on 8. ... Ng8 9. Bg5 is still very strong. Underlying BELLE's choice, (and probably most com-

puter programs in this position) is the chance for Black to make the trade of B+N for R+2p's, after the suggested 8. O-O Ne4 9. Bd5 Nxg2 10. Rxf2 Bxf2+ 11. Kxf2, but more than 100 years of tournament praxis by humans have demonstrated this to be a poor trade in such positions.

8. ... Ne4

Not 8. ... Bxe3? 9. exf6 winning for White.

9. Qd3 Bxe3 10. Qxe3 Nc5

11. O-O O-O 12. Rd1

For the pawn deficit, White enjoys some space. The text prevents the liberating ... d6.

12. ... Nc6 13. Bd5!

This move continues to apply pressure, and takes the sting out of 13. ... Re8.

13. ... b6 14. Nd4 Bb7 15. Bxc6 dxc6?

A poor choice, as the B/b7 never comes to life.

16. Nf5 Qe6 17. Nd4

Now 17. Qg5 g6 18. Nh6+ Kh8

19. Ng4 looks like a promising attacking continuation for White. A key question here is, would BELLE have settled for a draw after 17.... Qe7? 18. Nf5 etc.?

17. Qg6 18. f4 Qe4 19. Qg3 Ne6

20. Nxe6 fxe6 21. Rd7

White finally finds some semblance of an attack. Black's best bet here is 21.... g6 with counterplay on f4.

21. ... Rf7 22. Rxf7 Kxf7 23. Nd2
White keeps an initiative just sufficient to pose Black with continuous problems. Given a free move or two, Black would quickly win with ... c5 and ... Rd8.

23. ... Qe2 24. Nf3 Qe3+

25. Kh1 Kg8 26. Rd1! (Figure 1)

Bringing White's last piece into the attack by seizing the only open file. White threatens to win:
27. Rd7 Rf7 28. Rxf7 Kxf7??
29. Ng5+ wins for White, but Black's best defense may entail this line with 28.... Qc1+!
29. Ng1 Kxf7. The intermediary check with 28. Rd8+ Rf8 29. Rd7 extending the variation to 10 ply may have caused LACHEX's search to miss this defense.

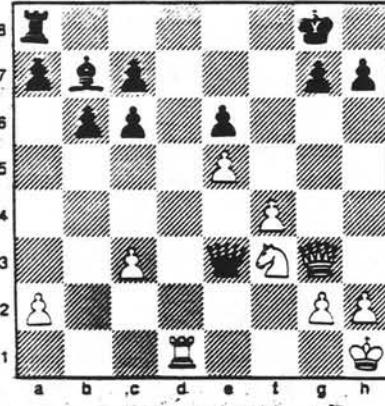


FIGURE 1. Position after 26! Rd1!

26. ... Kh8 27. Rd7 Rg8 28. Rxc7.
BELLE finally recoups the pawn sacrificed in the opening.

28. ... Ba8 29. Ng1!

White eliminates Black's only active piece, solves the back rank problem, and prepares for the endgame.

29. ... Qxg3 30. hxg3 c5

31. Rxa7 h6 32. Ra6 Rb8 33. Kh2 h5?

This eases White's technical problems by weakening g5. Indicated is 33.... Bd5.

34. Nf3 Be4 35. Ng5 Bd5 36. a4 Bc4
37. Ra7 Kg8 38. a5 bxa5
39. Rxa5 Rc8 40. Ne4 Bd5 41. Rxc5 Rxc5 42. Nxc5 Kf7 43. Kh3 Ke7
44. Nd3 Kd7 45. Kh4 g6 46. Kg5 Ke7 47. Nb4 Be4 48. c4 Kd7 49. c5 Kc7 50. Kf6 Bf5 51. Ke7 Bg4
52. Nc2 Kc6 53. Nd4+ Kxc5
54. Nxe6+ 1-0.

Round 4: ACM's NACCC BEBE versus BELLE

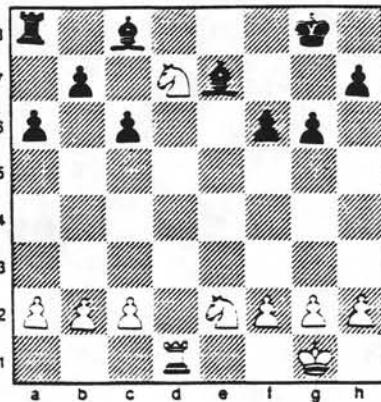


FIGURE 2. Position with Black to play on move 22

In this critical 4th Round game, BELLE (Black) played 22.... Ra7? instead of 22.... Bxd7 23. Rxd7 Rd8! forcing the theoretically favorable ending of bishop vs. knight with pawns on both sides of the board.

White misses a golden opportunity to punish the error on Black's previous move, and prevent the extrication of Black's rook with 23. Nb6! Black's only viable continuation is then 23.... Bg4 (if 23.... Be6? 24. Nd4 Kf7 [24.... Bg4 25. f3 Bc5 26. Na4Bxd4+ 27. Rxd4 Bf5 etc. is probably Black's best; 24.... Bxa2? 25. Nc8 wins] 25. Nxe6 Kxe6 26. Nc8! wins) 24. Rd2 Bc5 25. Nd7 (or 25. Na4) and Black has still not succeeded in extricating his rook. Play continued: 23. h3? Kf7 24. b3 b5 25. Nb6 Be6 26. Nd4 Rb7 27. Nxe6 Kxe6 28. Re1+ Kf7 29. Nc8 Bc5 30. Rd1 Ee6 31. c3 a5 when White soon had to resign.

Round 5: ACM's NACCC BELLE versus CHALLENGER

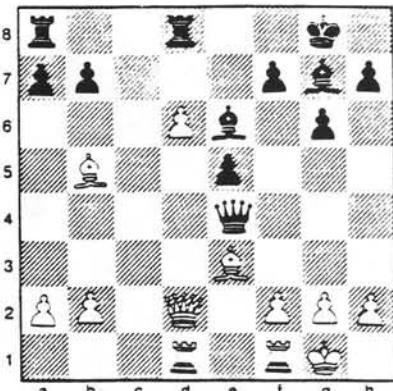


FIGURE 3. Position with Black to play on move 17

The diagrammed position at Black's seventeenth move is a critical one from the BELLE (W) vs. CHALLENGER (B) encounter. It is important to note that in this position the Black queen is threatened by 18. f3 Qf5 19. g4 Qf6 20. Bg5. The text move 17.... Bxa2 steals a pawn and at the same time frees the square e6 for the Black queen. Play continued: 18. Bg5 f6 19. Be3 Bb3 20. Qd3 Qxd3 21. Rxd3 Be6 22. Ra1! whereby BELLE went on to win the ending by demonstrating the power of the advanced passed d-pawn which cost Black an exchange (rook for bishop). It is difficult to suggest an improvement for Black here over 22.... a6 as played.

23. d7! Kf8 24. Ba4 e4 25. Rd2 b5?

Here CHALLENGER should play 25.... Bc4 with good chances to win the P/d7 eventually and/or shut out the R/d2 with ... Bd3. A sample continuation could now go: 26. Bc5+ Kf7 27. Rd4 b5 (or 27. Bb6 Bd3 28. Bb3+ Ke7 etc.; or 28. Bd8 Rxd8 with excellent chances for full equality for Black).

26. Bxb5 axb5 27. Rxa8 Rxa8

28. d8 = Q+ Rxd8 29. Rxd8 + Kf7
30. Rb8 Bd7?

A passive move which contributes to Black's downfall; better is 30.... Bc4 with some drawing chances.

31. Bd4! h5 32. h4 Be8

Black gradually runs out of moves. BELLE went on to win the ending and the tournament with a perfect score of 5-0.

