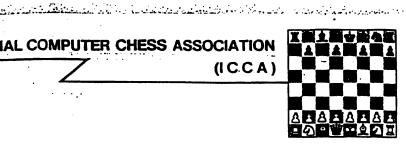


INTERNATIONAL COMPUTER CHESS ASSOCIATION

(ICCA)



ICCA Newsletter

Vol. 3 No. 3 November 1980 Copyright 1980, ICCA

EDITORIAL

Computer chess has come of age! The ICCA has been officially launched, with an approved constitution and bylaws and a set of elected officers; the 3rd World Computer Chess Championship was held in Linz, Austria and produced a new world champion; the Association for Computing Machinery began its second decade of support of the North American Computer Chess Championship; several microchess events have been held and more are scheduled; ICCA is moving toward closer affiliation with FIDE, the World Chess Federation; and the first Fredkin Prize incentive award was split between the human and computer opponents. These and other computer chess activities are reported in this final ICCA Newsletter of 1980.

1981 will see even greater growth of interest in computer chess. Enclosed is the ICCA membership renewal form for current members whose membership expires in December 1980 (totaling just under 400 at the present time). Dues for 1981 will continue at \$10.00 per year. A set of reprints of all previous Newsletters can be purchased for \$5.00. To renew or to apply for membership,

Editor: B. Mittman Editorial Asst.: J. Cesal Northwestern University Evanston, Illinois 60201, USA

or to request reprints, write to:

Ken Thompson Bell Telephone Labs Room 2C423 Murray Hill, New Jersey 07974, USA

During the ICCA Triennial Meeting in Linz on September 28, Monty Newborn suggested that the name of our publication be changed from Newsletter to Bulletin to encourage more serious and scholarly publication. As Editor of the Newsletter, I feel that such a change would be beneficial, but I do not believe that a mere name change will accomplish the desired effect. Therefore, I shall encourage the yet-to-be named chairman of the Publications Committee to make recommendations concerning the content and form of our Newsletter and to set up an editorial board to improve the quality and extend the scope of this publication.

Other ICCA committees specified in the bylaws are to be formed during the coming year. They are listed elsewhere in this $\underline{\text{News}}$ letter. I want to encourage as

EDITORIAL (cont'd)

many members as possible to become involved in the business of the Association. Joining a committee and working is a way to do that. Please send me a letter indicating your interest in one (or more) of the committees so that we can begin forming them without delay. We have also added a check list to the membership renewal form where you can express your interest in working with ICCA.

We congratulate Ken Thompson and Joe Condon for their double victory this year. Read on and enjoy the excitement of the 1980 computer chess events!

B. Mittman Editor

The Pfleger "Turing Test"

With the last Newsletter, we sent a letter from Frederic Friedel and Albrecht Fölsing telling about a simultaneous exhibition in which German International Grandmaster Dr. Helmut Pfleger played 26 opponents, among whom were "hidden" three computers. Five game scores from that exhibition accompanied the letter, along with the question: Which game was played by a computer? Don't feel bad if you couldn't guess which was the computer, since Dr. Pfleger could not tell either. He was astounded to learn that Game Number One was played from moves made in Murray Hill, New Jersey, transmitted over the telephone to Hamburg, and relayed to the player at the board. BELLE, developed by Ken Thompson and Joe Condon, produced one of the two losses for Dr. Pfleger in Hamburg! A letter from Messrs. Friedel and Fölsing follows on page 3.

The Fredkin Prize Incentive Competitions

The first computer chess incentive competition sponsored by the Fredkin Foundation was held at Stanford University in August. CHESS 4.9, developed by David Slate of Northwestern University, Larry Atkin, formerly of Northwestern, and David Cahlander of Control Data Corporation, played a two-game match against Paul Benjamin of New York. Both the program and Benjamin have low expert chess ratings. Benjamin won the first game, which he played conservatively, preventing the computer from opening lines of attack. In the second game, he chose to play aggressively and before long, CHESS 4.9 developed a decisive attack which forced Benjamin to resign after 35 moves. The authors of CHESS 4.9 and Benjamin split the \$1500 incentive prize.

The next Fredkin competition is scheduled to be held between BELLE and another player of expert rating at Carnegie-Mellon University in November. BELLE and CHAOS, the first and second place finishers in the Linz tournament, will play in the 1981 incentive competitions. The eventual goal of the Fredkin Prize is to award \$100,000 to the first computer program to defeat the world chess champion in a match. Details of the competition were published in the July 1980 ICCA Newsletter.

An English Language Bibliography of Computer Chess

Prof. Tony Marsland's excellent bibliography of computer chess is available to ICCA members for \$2.00 (for postage and handling) by writing to:

The Librarian
Computing Science Dept.
University of Alberta
Edmonton, Alberta
T6G 2H1, Canada

Pastlach 540 440, Gazellanhame 57, 2000 Hamburg 54

felelanı Sammelnummer 41 31 Tel. Durchwahlnummer: 413-Jernichteibnummet. 021 1845 Telegramm-Adresses Hardfunk Deutsche Bent BLZ 200 700 00 Kente-Nr. 300711 Pasticheck Homb. 812 208 100 70 Konto-Nr. 2002 00 - 201

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Dear chess friends.

many thanks for the numerous replies to our computer chess test. Of the five yames we published the first one - the game Dr. Pfleger lost - was played by a computer. We used the American programme BELLE (Ken Thompson and Joe Condon), the new version of which was just two days old when it participated in our test. It ran at "only" 30,000 nodes/sek (vs. 180,000 today) and we insisted on BELLE's making a move every time Pfleger approached the board. BELLE had an average of 2 minutes per move and well under a minute in the endgame. In spite of this it played a very pretty game that delighted all participants.

The replies we received to our test were most illuminating. There was a basic tendency for computer experts to pick the right game and for good chess players to guess wrong. The latter were obviously looking for decisive blunders that should betray a computer whereas the former used exactly these blunders to identify the numans! Inspite of the astonishing elegance of the first game it was their only choice since the other four contained short-term blunders that "no decent computer would commit".

There were of course exceptions, Dr. Hans Berliner of Pittshurgh chose (as did Victor Kortschnoi and many others) game 4. And the 17-year-old Russian chess genius Garry Kasparov picked the right yame after reading the five gamescores simultaneously during a dinner party.

One of the best replies came from Dr Laszlo Lindner from Budapest, Dr Lindner wrote:

"The experiment was most interesting. The fact that it was not at all easy to answer ... shows that computers are indeed on the way to becoming masters. After playing over the games I found it impossible to decide so I had to employ an elimination process....

In game 2 black plays a strange opening, Strange, too, 18, -Se5 which does not protect the attacked pawn. A computer would probably have played Te6. 30. -Td6: is a decisive mistake.

Nr. 3 was played by a weak player, 19. -Oc877 is a blunder no good computer would make.

In game 4 black overlooks (28, -Dc5;+) the queen, A human may well do this, but a computer?

In game 5 the move 13. -fg3: is more natural than Sd5:, 23, -Dd6+ instead of qh6: is also hardly a computer move.

What about game 1? White played strategically well but black could always equalize. In the endgame white was theoretically ahead,. but with the beautiful tactical combinations 52. -e5;[: 58. -Lh1!!: 63. -Tg11! 67. -h4! black turns the game around and wins. I can well imagine that these tactical combinations could be found by a computer If this is genuinely the case, my congratulations for the computer!"

Six weeks after our test BELLE won the 3rd Computer Chess World Championship in Linz, Austria.

We hope you enjoyed our test.

Yours sincerely

(Frederic A. Friedel) (Albrecht Fölsing)

Page

November

NEWSLE.

TIER

Computer Chess Tournament Results

Ken Thompson of Bell Telephone Laboratories has supplied us with game scores and cross tables for three recent tournaments: the 3rd World Computer Chess Championship in Linz, Austria, ACM's 11th North American Computer Chess Championship in Nashville, Tennessee, and a Microcomputer Chess Championship in San Jose, California. These results were produced from Ken's data base of computer chess tournaments using an automatic typesetting machine at Bell Labs. In order to minimize confusion among the names of commercially available microcomputer chess machines and corresponding experimental versions which might eventually be marketed, Ken adopted the convention of adding an "X" to the commercial name when an experimental version of a commercial machine was entered in a tournament. Thus, "Challenger X" and "Boris X" appear in the cross tables, referring to Chess Challenger Experimental and Boris Experimental. We greatly appreciate Ken's efforts in producing these invaluable records of major computer chess championships.

Microchess Tournament in Paris

The French magazine L'ORDINATEUR INDIVIDUEL is sponsoring a microcomputer chess tournament to be held in Paris in late May or early June of 1981. Mr. Pierre Nolot has requested ICCA recognition for this tournament. We have informed him that one of the newly formed committees of ICCA will be considering questions of sanctioning and sponsoring tournaments. However, in the meantime, we are pleased to recognize their tournament and to publish results when they become available. For further information about the tournament, please (see next column)

New USCF Registration Rules

On September 16, 1980, the United States Chess Federation issued new rules concerning the participation of computers in USCF-rated tournaments. These rules are reproduced on page 5. Ken Thompson of Bell Telephone Laboratories sent us the following communication:

"Attached are letters to registered computer chess programs from the USCF stating the new registration rules. I would like to voice my objections to certain parts of these rules.

- The registration fee is \$30 while regular membership is \$20. It's no big deal, but I guess I object to the discrimination.
- 2) Although not stated, computer registrants do not receive Chess Life. The only excuse for this that I could obtain from USCF headquarters was the tongue-in-cheek "Computers can't read."
- 3) I object to the rules concerning prizes. First, computers should be able to win prizes. If they pay entry fees, they should be able to compete for prizes. Second, the option of returning prizes to the organizers or to special organizations such as ACF or ICCA should be an option. Computers should be able to compete freely for trophies and/or titles. The USCF is treading very heavily on the Tournament Directors' turf with these rules."

contact:

M. Pierre Nolot Appt. 3181 130 Boulevard Massena 75013 Paris, France Telephone: 5842458



UNITED STATES CHESS FEDERATION

186 ROUTE 9W NEW WINDSOR, NEW YORK 12550 PHONE (914) 562 - 8350

September 16, 1980

Dear Computer Owner,

As you may have heard already, the USCF Board of Delegates decided to continue to allow chess-playing machines to compete in rated tournaments, but with more restrictions than prevailed in 1979-80.

The regulations are enclosed. You will note that only program authors or sponsors may register machines and that registration must be in advance of the tournament. The latter point anticipates problems of hardware/software identity that may arise in the future. Also, individual tournaments may have restrictions of one sort or another, so you should check to be sure your machine will be welcome at a particular event.

Thank you for participating in last year's experiment. If you qualify under the new regulations, we hope you will continue to compete in tournaments for our mutual benefit and enjoyment.

Sincerely,

Gerard J Dullea Executive Director

GJD:dkm Encl.



UNITED STATES CHESS FEDERATION

186 ROUTE 9W • NEW WINDSOR, NEW YORK 12550 PHONE (914) 562 • 8350

Computers in USCF-Rated Tournaments

At their August 1980 meeting, the USCF Delegates adopted a series of regulations governing the participation of chess-playing computers in USCF-rated tournaments:

- Computers may participate in USCF-rated tournaments only if registered in advance with the USCF office at a fee of \$10 per year. These computers are not considered members of the USCF.
- Computers may be registered only by program authors or sponsors. Specific identification and registration procedures shall be determined administratively,
- An event in which computers will (or may) participate must be so designated in the "Tournament Life" announcement or any other advance written publicity.
- An organizer is under no obligation to accept the entry of any particular computer.
- 5. By playing in a tournament meeting the above criteria, a player agrees to play the computer if paired. However, a player may indicate before the start of the event that he or she prefers not to play the computer and tournament directors will attempt to avoid such pairings until such time that places or prizes appear to be directly affected by the results of particular games.
- Computers may win only prizes specifically designated for them. Other prizes shall be distributed as though computers were not entered.

Any questions about these regulations should be addressed to the USCF office, 186 Route 9W, New Windsor, New York 12550

GJD;dkm 9/8/80

ICCA Holds its First Triennial Meeting in Linz

The ICCA held its First Triennial Meeting in Linz, Austria on Sunday, September 28, 1980, during the 3rd World Computer Chess Championship. Some 50 ICCA members were in attendance. David Levy presided over the meeting. He first announced that the proposed Constitution and Bylaws, dated June 1980, had been approved by mail ballot. The next order of business was the election of officers. One nominating petition had been received for each position, and since there were no additional nominations, the following officers were elected:

> Benjamin Mittman, President Monroe Newborn, Vice President Kenneth Thompson, Secretary/Treasurer

They were to take office at the conclusion of the First Triennial Meeting and would then serve for a three-year term, until the next triennial meeting.

Committee reports followed:

Monty Newborn reported that the Bylaws Committee, made up of Kathe Spracklen and Newborn, completed its work with the writing and subsequent ratification of the Constitution and Bylaws.

Tom Truscott, chairman of the Tournament Rules and Organization Committee, made up of Fred Swartz, Michail Donskoy, and Truscott, reported that the rules governing the 3rd World Computer Chess Championship were those developed by his committee and then modified by agreement of the participants during their pretournament meeting held on Wednesday, September 24, at 5 P.M. The major modification to the original set of rules involved adjudication. It was decided that a specific time for adjudication would be agreed upon before each game (to take into account such things as scheduled loss of a remote computer), and that the adjudication decision would be made solely on the basis of the chess position at the time of adjudication. (A general discussion on adjudication was held later in the meeting.) After Linz, the work of the Rules Committee would be transferred to one of the newly formed standing committees.

Several reports were made by members of the External Liaison Committee. David Levy reported that excellent contacts had been made with FIDE. Fridrik Olafsson, President of FIDE, and his wife were invited as special guests to the 3rd World Computer Chess Championship. Mr. Olafsson suggested that the ICCA develop a similar agreement with FIDE as now exists between FIDE and the International Correspondence Chess Federation (ICCF). In that agreement the organizations declare their conviction that a close collaboration in the common interest of development and promotion of chess is useful, and for that purpose they join as partners in an association in which each partner remains legally, economically and technically independent.*

^{*}After Linz, B. Mittman prepared a draft agreement which parallels the ICCF agreement and sent it to Mr. Olafsson for consideration. If agreed to by FIDE, the agreement will be submitted to the ICCA membership for approval.

One additional idea, which was put forth, was the exciting possibility of sending our international team of chess programs to the Chess Olympiad in Lucerne in 1982. This will also be discussed with FIDE.

David Slate reported that a computer chess committee had been formed by the U. S. Chess Federation (USCF). Shate is a member of that committee. Ken Thompson also reported that USCF has issued new rules concerning registration of chess programs (see page 4).

Tony Marsland has made contact with the International Federation for Information Processing (IFIP). It appears that no formal affiliation is possible with IFIP since it is a federation of national computer societies. However, many of the ICCA members present felt that the triennial IFIP conference is an excellent site for the world computer chess championships if appropriate funding can be obtained (which was not the case in 1980). Prof. Marsland has written to the IFIP Secretariat to explore the possibility of resuming the world championship at IFIP'83.

The final liaison report was made by Monty Newborn. He is chairman of the Computer Chess Committee of the Association for Computing Machinery (ACM). ACM sponsors the annual North American Computer Chess Championship. Close contact is being maintained with ACM, since every member of Monty's committee (Kathe Spracklen, Tony Marsland, Ken Thompson, and Ben Mittman) is also a member of ICCA.

No report was available from the <u>Computer Chess Rating Committee</u>, chaired by Allan Gottlieb.

The above committees are no longer in existence since their functions will be taken over by the standing committees which are specified in the new Bylaws: Publications and Publicity, Ranking, Tournament Organizing, Sanctioning, Program Rights and Standards, and Liaison. Members are urged to indicate their willingness to work on these committees by marking their choices on the 1981 membership renewal forms which are enclosed with this Newsletter. These committees will be named in early 1981.

Another issue which generated considerable discussion was the participation of commercial entries and the potential conflict of such participation with the rule which requires possible presentation to the tournament director of a program listing. It was pointed out that the scientific value of the tournaments could be diminished if secrecy were the rule. This issue will have to be considered seriously for future tournaments as more and more commercial interests enter the computer chess world.

Finally, the ICCA adopted a resolution thanking the City of Linz for its generous support of the 3rd World Computer Chess Championship and for its outstanding hospitality during the tournament.

Minutes prepared by B. Mittman

CORRECTION

In the July Newsletter an unfortunate error appeared in the results of the Man-Machine Othello Tournament which was held at Northwestern University on June 19, 1980. The program listed as 6th by Paul Rosenbloom and Hans Berliner of Carnegie-Mellon University should have been listed as 5th with a score of 3-3-1 (W-L-T). The program of Levy, Reeve and Stean, London, should have been 6th with a score of 3-4-0. Sorry!

Stockholm Micro 1980

Page 8

The 2nd annual chess tournament for microcomputers is to be held at the Schackhuset, Hornsgatan, Stockholm, Sweden, December 16-18, 1980.

Organizing Committee: Sven-Gunnar Samuelsson (International Chess Master) Johan Enroth Ulf Rathsman

The tournament is played under the recognition of the ICCA and FIDE.

The closing date for entries is November 30, 1980, although entries may be accepted after that date at the discretion of the organizing committee.

All entries and queries regarding the tournament should be addressed to:

> Stockholm Micro 1980 Johan Enroth Box 96 S-16212 Vallingby, Sweden



ICCA Computer Chess Archive

In order to ensure that an historical record can be kept, the ICCA will try to maintain an archive of source code, object code, and/or documentation of chess programs. If accepted by the Archive, the materials will be preserved under the conditions specified by the authors. However, the intended long-term goal of the archive is to make the materials available to the computer chess community. For large-machine programs, the storage medium will be 9-track magnetic tape. For microcomputer systems, the programs will be preserved in whatever form the authors can supply, e.g., floppy disk.

The following programs have been already stored in the Archive:

BLITZ'79, DUCHESS'79, KAISSA'79, OSTRICH'79, CHAOS'76, CHUTE'76, ETAOIN SHRDLU'76, TREEFROG'76, WITA'76, BELLE'75, COKO'74, and SCHACH'72.

Copies of your archival material should be sent to:

Prof. T. A. Marsland Computing Science Dept. University of Alberta Edmonton, Alberta T6G 2H1, Canada

Prof. Marsland will provide periodic reports on the ICCA Archive in the Newsletter.



3rd WOALO COMPUTER CHESS CHAMPIONSHIP

Linz, Austria. September 25th - 29th 1980

Report by D. Levy, London, England

- B. Mittman, Northwestern University, Evanston, IL, USA
- M. Newborn, McGill University, Montreal, Quebec, Canada

BELLE is the New World Champion

A new world champion was crowned in Linz, Austria on September 29, 1980 at the 3rd World Computer Chess Championship. BELLE, written (and built) by Kenneth Thompson and Joseph Condon of Bell Telephone Labs in Murray Hill, New Jersey, won the tournament in an exciting playoff game against CHAOS on the fifth day of the tournament. BELLE was run on a newly constructed chess machine tied to a DEC LSI-11 at Bell Labs. CHAOS of the University of Michigan, written by Fred Swartz, Mike Alexander, Jack O'Keefe, and Victor Berman, was run on an Amdahl 470 in Sunnyvale, California. Third place went to DUCHESS of Duke University, written by Tom Truscott, Bruce Wright, and Eric Jensen. They also competed on an Amdahl located at the Triangle Universities Computing Center in North Carolina. A list of participants and their computers appear in Table 1; the complete results of the tournament appear on pages 16-19.

As can be seen from the results and from the game descriptions which follow, there were some surprises, and also a good deal of excellent chess and excitement. The two former world champions, CHESS 4.9 of Northwestern University in Evanston, Illinois (Toronto, 1977) and KAISSA of the Institute for System Science in Moscow (Stockholm, 1974), won only two and one-half and two points, respectively. Other features of the tournament were the fine play shown by several microcomputers and the introduction of special purpose chess hardware.

Support for the tournament was provided by the City of Linz after it became clear that insufficient funds would be made available to hold the tournament as originally planned in Melbourne, Australia as part of IFIP 80, the world computer congress of the International Federation for Information Processing. The Championship was held instead as part of Linz's annual Bruckner Festival and was presented as one of the special

events in the Ars Electronica activities which included seminars on electronics and the arts, computer music, and a microcomputer chess exhibition. In keeping with the Ars Electronica theme, the Linz organizers had a unique first prize designed and built by their college for artistic and industrial design. We quote from the presentation document:

"The prize consists of an aluminum cube, its top surface made up of a three-dimensional chess board of 64 movable aluminum blocks, forming a unique relief-like arrangement.

The interior of the cube houses an electronic control system causing the individual blocks to move up and down. This computer chess prize is intended to symbolize the tremendous possibilities of the game as well as those of the computer. It is programmed so as not to repeat any single pattern during the coming 1.169 trillion years provided the apparatus doesn't stop working before reaching that age."

The tournament organizers were David Levy, Benjamin Mittman, and Monroe Newborn. Commentary was done in German and English by German Grandmaster Dr. Helmut Pfleger. Local arrangements were organized by Dr. Ernst Kubin of the Linz Office of Special Events (LIVA).

Sunny afternoons found the programmers sipping Austrian white wine and analyzing and reanalyzing their games on the Tourotel terrace next to the Brucknerhaus overlooking the Danube. Two special guests had been invited to the tournament - Dr. Claude Shannon, the developer of information theory, and Mr. Fridrik Olafsson, President of the International Chess Federation, FIDE. Chess journalists and radio and television reporters interviewed participants, organizers, and guests. Dr. Shannon, who published a landmark article entitled "Programming a computer to play chess" thirty years ago, stated in an interview that although tremendous progress has been made in those thirty years, the world chess champion has nothing to fear from computers for many more years to come. Mr. Olafsson, a grandmaster, had no problem in defeating CHESS 4.9 in two blitz games. Nevertheless, he felt that computer chess had a great deal to offer in attracting world attention to the game and encouraged the officers of ICCA to pursue some level of affiliation with FIDE. A number of ICCA members have suggested the possibility of entering an international team of chess programs in the Chess Olympiad in 1982 in Lucerne. Negotiations along these, and along other lines, will begin soon, as ICCA continues to promote and encourage computer chess world-wide.

The Play

Surprises began immediately in the first round on Thursday morning, September 25. The reigning world champion, CHESS 4.9, was defeated by L'EXCENTRIQUE, written by Claude Jarry, running on an Amdahl V/7 at McGill University. Mr. Jarry, a former student of Prof. Newborn at McGill, saw his program generate considerable pressure by creating an early passed pawn. After this initial advantage, L'EXCENTRIQUE began to play passively, allowing CHESS 4.9 to recover and even pull ahead (at one point CHESS 4.9 calculated an evaluation of plus two pawns for its side). However, L'EXCENTRIQUE fought back after CHESS 4.9 itself began to play passively, allowing a key bishop, which was protecting a queening square on the main diagonal, to be blocked. L'EXCENTRIQUE queened, and Larry Atkin and David Cahlander resigned for the program. (Programs still do not resign themselves.) The tournament ended with both programs earning 2 1/2 points to tie for fourth place; so in retrospect, L'EXCENTRIQUE was stronger than most people had given it credit, and CHESS 4.9 was weaker than had been expected.

The second round saw BELLE draw against NUCHESS, a new entry by David Slate, one of the original authors of CHESS 4.9, and William Blanchard of Northwestern University. This hard fought game provided winning chances for both sides, but ended in draw by repetition in a very even position.

DUCHESS and KAISSA entered the third round with two points each. KAISSA played the white side of a Ruy Lopez opening and made a strategic error which allowed DUCHESS to infiltrate with a rook on the D-file. KAISSA's position became more and more passive and quickly collapsed. In the NUCHESS-CHAOS game in the third round, history repeated itself. Unexpectedly, David Slate had not modified the openings library which he inherited from CHESS 4.9, and found himself in essentially the same Queen's Gambit Accepted opening which was played against CHAOS by CHESS 4.0 in Stockholm in 1974. That game saw CHAOS sacrifice a knight in what David Levy later described as the first computer chess game in which a program sacrificed material to gain a positional advantage. In Linz, the same sacrifice again led to an easy win for CHAOS.

The fourth and final round of the Swiss-style tournament found DUCHESS with three points, only needing a draw to guarantee a finish no lower than a tie for first place. DUCHESS met BELLE. DUCHESS played an opening variation in which White sacrifices a pawn in return for some pressure. By failing to play sufficiently actively, DUCHESS found "herself" a pawn down for nothing, and after BELLE picked up another pawn, there was no hope for White, although the game dragged on for some time.

The championship was decided in the most exciting game of the tournament between BELLE and CHAOS on Monday. In an unusual variation of Alekhine's Defense, CHAOS twice failed to find the most active move. (David Levy's annotations, which were prepared as the game progressed, are found on pages 14 - 15.) Instead of reaching a position in which it would have had good chances, it was soon a piece down without any real compensation. BELLE's king found itself stuck in the center and was subjected to a few harassing checks. But by careful parrying of Black's simple threats, BELLE insured that the result was never in doubt. It ended the game decisively with an announced mate at move 34.

Special purpose chess hardware permitted BELLE to examine about 160,000 chess positions per second. This immense brute force search capability represents the best of today's level of play by a chess computer. Even so, most observers, including Ken Thompson, feel that brute force alone is insufficient to play at the grand master level, let alone to defeat the World Chess Champion. Nevertheless, by winning the tournament, BELLE has earned the right to participate, with CHAOS, in the two 1981 incentive competitions of the Fredkin prize. The Fredkin Foundation of Massachusetts has established a prize of \$100,000 to the first program to defeat the World Chess Champion in an official contest. Before a serious threat by a computer can become feasible, Dr. Hans Berliner of Carnegie-Mellon University and a committee of trustees of the Fredkin prize will be organizing a series of incentive competitions matching the best programs in the world against human players of comparable chess ratings to these programs. The first such competition earlier this year saw CHESS 4.9 split two games with Mr. Paul Benjamin, a player with a low expert rating.

Other programs appeared with special chess hardware and microcomputers. BEBE and ADVANCE 1.0, as well as BELLE, use specialized circuitry for such functions as move generation, positional evaluation, or transpositions table management to speed up analysis. Among the microcomputer participants were MYCHESS and CSC. Even the last place finisher played at a level which would have been respectable three years earlier in Toronto. The microcomputers at the tournament site participated in a speed-chess competition on Sunday against six Austrian chess players. MYCHESS was impressive in winning five of its six games.

TABLE 1

Participants

	· · · · · · · · · · · · · · · · · · ·	2	
Program Name	Author(s)	Affiliation	Computer (Location)
ADVANCE 1.0	Mike Johnson Dave Wilson	Private Entry London, England	6502 plus chess hardware (at tournament site)
AWIT	T. A. Marsland	University of Alberta Edmonton, Canada	Amdahl 470 V/7 (Edmonton, Canada)
ВСР	Don Beal	Queen Mary College London, England	PDP 11/70 (London, England)
BEBE	Tony Scherzer	SYS-10, Inc. Hoffman Estates, IL, USA	BEBE Chess Machine (at tournament site)
BELLE	Ken Thompson Joe Condon	Bell Telephone Labs Murray Hill, NJ,USA	DEC LSI-11 with chess hardware (Murray Hill, NJ, USA)
CHAOS	Fred Swartz, Mike Alexander, Jack O'Keefe, Victor Berman	University of Michigan Ann Arbor, MI, USA	Amdahl 470 (Sunnyvale, CA, USA)
CHESS 4.9	Lavrencé Atkin David Cahlander	Northwestern University Evanston, IL, USA and Control Data Corp. Minneapolis, MN, USA	CDC Cyber 176 (Arden Hills, MN, USA)
csc	Dan and Kathe Spracklen, Ron Nelson, Frank Duason, Ed English	Fidelity Electronics Miami, FL, USA	Champion Sensory Challenger (at tournament site)
DARK HORSE	Ulf Rathsman	Private Entry Stockholm, Sweden	Univac 1100/81 (Stockholm, Sweden)
DUCHESS	Tom Truscott, Bruce Wright, Eric Jensen	Duke University Durham, NC, USA	Amdahl V/8 (Research Triangle, NC, USA)
L'EXCENTRIQUE	Claude Jarry	McGill University Montreal, Canada	Amdahl V/7 (Montreal, Canada)
KAISSA	V. L. Arlazaroff M. V. Donskoy	Institute for Systems Studies Moscow, USSR	IBM 370/168 (Pisa, Icaly)
MASTER	Peter Kent John Birmingham	Atomic Energy Research Establishment Harvell, England	IBM 3033 (Harwell, England)
MYCHESS	David Kittinger	Privace Encry Anchorage, AK, USA	Cromenco (ac tournament site)
NUCÆESS	David Slate William Blanchard	Northwestern University Evanston, IL, USA	CDC Cyber 176 (Sunnyvale, CA, USA)
OSTRICH	Monroe Newborn	McGill University Montreal, Canada	Data General Nova 4 (at tournament site)
PARWELL	Thomas Nitsche, Elmar Henne, Wolfram Wolff	PI-Gesellschaft fur Informatik MBH Munich, Germany	Siemens SMS 2 (Munich, Germany)
SCHACH 2.3	Marthias Engelbach	Bundeswehrhochschule Neuhiherg bei München Germany	Burroughs 7800 (Neubiberg/Munich, Germany

Playoff Game, September 29, 1980

White: BELLE (USA) Black: CHAOS (USA)

Notes written by David Levy while the game was in progress.

1 e2-e4 Ng8-f6 2 e4-e5 Nf6-d5 3 d2-d4 d7-d6 4 Ng1-f3 d6xe5 5 Nf3xe5 g7-g6 6 g2-g3

More usual is 6 Bfl-c4. The text move is rarely played and now CHAOS was out of its openings book.

6 Bc8-f5 7 c2-c4

Black must be careful. If 7.....Bf5-e4?, White wins a piece with 8 f2-f3, while if 7.....Nd5-b4? 8 Qd1-a4+ Nb8-c6 9 Ne5xc6 Nb4xc6 10 d4-d5, again winning a piece.

7 Nd5-b4?

Having written the above note, I was naturally taken aback when CHAOS played this move. What had I overlooked?

8 Qdl-a4+ Nb4-c6

CHAOS had probably been under the same illusion as I, but in fact, it could have played 8.....Nb8-c6 quite safely, as 9 Ne5xc6 Nb4xc6 10 d4-d5 can be met by 10.....Bf5-d7 11 d5xc6 Bd7xc6, forking White's queen and rook.

Another possibility after 8....Nb8-c6 is 9 d4-d5 Bf5-c2!, when 10 b2-b3 Bf8-g7 l1 Bc1-b2 can be met by 11....0-0, and if 12 d5xc6?? Qd8-d1 is mate! White may also try 10 Qa4-b5, but then 10....a7-a6 l1 Qb5xb7 Nc6xe5 l2 Qb7xb4 Ne5-f3+ l3 Ke1-e2 Nf3-d4+ gives Black good play for the pawn.

The conclusion is that Black's 7th move is probably playable.

9 **d4-d5** Bf5-c2 10 Qa4-b5 Qd8-d6?

In view of Black's difficulties it would have been better to try 10.....a7-a6 11 Qb5xb7 Nc6xe5 12 Qb7xa8 Ne5-f3+ 13 Ke1-e2 Nf3-d4+, when it is not clear who stands better.

11 Ne5xc6 Nb8xc6

And here Black could try 11....b7xc6 12 Qb5-b7 Qd6-e5+ 13 Ke1-d2 Bc2-f5.

The complications following 14 Qb7xa8 Bf8-h6+ are extremely unclear.

```
12 Nb1-c3-
```

White cannot yet capture on c6 because of mate on dl.

```
Bf8-g7
12
     Qb5xb7
                 0-0
13
                 Qd6-b4
14
     Qb7xc6
                 Bc2-e4
15
     Kel-d2
                 Rf8-b8
16
     Rhl-gl
     Bf1-h3
                 Bg7-h6+
17
      £2-£4
18
```

Black's counter threats have now been repulsed and White can play to consolidate its material advantage.

```
Qb4-a5
18
                  f7-f5
19
     Rgl-el
                Kg8-f8
20
     Qc6-e6+
      ъ2-ъ3
                 Bh6-g7
21
                 Bg7-d4
22
     Bc1-b2
23
                 Rb8-b6
      g3-g4
24
     Qe6-d7
                 Rb6-d6
     Qd7-a4
                 Qa5-b6
```

Black's only hope is to keep the queens on and play for an attack against the white king.

```
26 Bb2-a3 Bd4xc3+
27 Kd2xc3 Rd6-d8
28 Ral-d1 Qb6-f2
```

Although White is a piece ahead, his task is not easy. The exposed king gives rise to all sorts of tactical possibilities.

```
29 g4xf5 Qf2-c2+
30 Kc3-d4 g6xf5
31 Qa4-c6 Qc2-f2+
32 Kd4-e5 Kf8-g8
33 Rel-gl+
```

Black's king now comes under attack.

```
33 .... Kg8-h8
34 Ba3xe7
```

With this move Belle announced that it had found a forced mate. The threat is 35 Be7-f6 or 35 Qc6-f6.

```
Qf2-g2
34
     Qc6-f6+
°35
                 Kh8-g8
                 Rd8xd5+
36
     Bh3xg2
37
     Ke5-e6
                  h7-h6
38
     Qf6xh6
                 Rd5-e5+
                 Ra8-f8
39
      f4xe5
40
     Bg2-f3 mate
```

Third World Computer Chess Championship Linz, Austria

September 25-29, 1980

	rate	perí	1	2	3	4	total
1 Belle (USA)	2150	Ž189	8+0	6=■	4+0	3+≡	34
2 Chaos (USA)	1800	2026	17+0	4==	6+0	7+0	34
3 Duchess (USA)	1900	1948	18+0	12+0	7+≡	1-0	3
4 L'Excentrique (CAN)	0	2031	5+0	2=0	1	12+=	21/2
5 Chess 4.9 (USA)	2050	1902	4-=	9=0	11+=	10+0	21/2
6 Nuchess (USA)	0			1=0			
7 Kaissa (USSR) 8 BCP (UK)	0	1637	14+=	13+0	3-0	2-=	2
8 BCP (UK)	0	1608	1	10=0	14==	15+0	2
9 BeBe (USA)	0	1781	10=■	5=■	12=0	6=■	2
10 Schach 2.3 (FRG)	0	1710	9=0	8==	13+0	5- 	2
11 Awit (CAN)	1400	1334	13-=	17+=	5-0	18+■	2
12 Master (UK)	0	1654	15+0	3-■	9=■	4-0	14
13 Ostrich (CAN)	1450	1438	11+0	7-■	10-■	14=0	1%
14 Mychess (USA)	0	1407	7-0	15==	8=0	13=■	1%
15 Parwell (FRG)	0	1334	12	14=0	16+■	8-■	1%
16 Advance 1.0 (UK)	0	1103	6-0	18==	15-0	17+0	1%
17 Dark Horse (SWÉ)	0	1013	2-■	11-0	18+0	16-	1
18 Challenger X (USA)	1000	900	3-■	16=0	17-=	11-0	0%

Round 1 September 25

L'Excentrique — Chess 4.9 1 e4 e5 2 Nf3 Nf6 3 d4 N×e4 4 Bd3 d5 5 N×e5 Bd6 6 c4 B×e5 7 d×e5 Nc6 8 Bc2 N×e5 9 Q×d5 Q×d5 10 c×d5 Bf5 11 O-O c6 12 f4 Ng4 13 h3 Ngf6 14 g4 Nd2 15 Re1t Kf8 16 Bd1 B×b1 17 B×d2 Bd3 18 Re3 Bc4 19 Bb4t Kg8 20 d6 Nd5 21 Re4 Bd3 22 Rd4 N×b4 23 R×b4 b6 24 Rd4 Bb5 25 a4 c5 26 Rd2 Bc6 27 a5 Rd8 28 a6 h5 29 g×h5 Rh6 30 Bg4 Rh×d6 31 R×d6 R×d6 32 Kf2 Rd2t 33 Ke3 R×b2 34 Rd1 Rb3t 35 Kf2 Be4 36 Rd8t Kh7 37 Rf8 f6 38 Rf7 Ra3 39 R×a7 f5 40 Be2 R×h3 41 Rd7 Rh2t 42 Ke3 Rh1 43 Rd8 Rh3t 44 Kd2 Rb3 45 Bc4 Rb4 46 Bf7 Rd4t 47 R×d4 c×d4 48 a7 Kh6 49 Bg6 Bg2 50 Kd3 b5 51 B×f5 g5 52 Be4 Bf1t 53 K×d4 K×h5 54 f5 g4 55 a8(Q) Kh4 56 Ke3 Kh3 57 Kf2 1-0

Schach 2.3 — BeBe 1 e4 c5 2 Nf3 d6 3 d4 c×d4 4 N×d4 Nf6 5 Nc3 g6 6 Be2 Bg7 7 O-O O-O 8 Be3 Bd7 9 Qd3 Na6 10 Nb3 Nb4 11 Qd2 Ng4 12 Bg5 Rc8 13 h3 Nf6 14 Be3 a5 15 Nd4 e5 16 Ndb5 d5 17 e×d5 B×b5 18 B×b5 Nb×d5 19 N×d5 Q×d5 20 Qe2 e4 21 c3 Qe6 22 Rad1 Nd5 23 a3 N×e3 24 Q×e3 Rfd8 25 R×d8† R×d8 26 Re1 Qb3 27 Qb6 Rd1 28 R×d1 Q×d1† 29 Kh2 Bf8 30 Bc4 Qd6† 31 Q×d6 B×d6† 32 Kg1 Bf4 33 Bd5 b6 34 b4 a×b4 35 c×b4 e3 36 Kf1 e×f2 37 K×f2 b5 38 Bc6 Bc1 39 a4 b×a4 40 B×a4 Kf8 41 b5 Ba3 42 Bb3 Ke7 43 Bd5 f6 44 Kg3 Bc5 45 Kf4 Ke8 ½-½

Advance 1.0 — Nuchess 1 e4 d5 2 e×d5 Q×d5 3 Nc3 Qd6 4 d4 Nf6 5 Nb5 Qb6 6 Bf4 Nd5 7 Bg3 c6 8 c4 a6 9 c×d5 a×b5 10 d×c6 b×c6 11 Nf3 g6 12 Be5 Qa5† 13 Qd2 Q×d2† 14 N×d2 f6 15 B×b8 R×b8 16 O-O-O Be6 17 b3 Ra8 18 Kb2 Bh6 19 Re1 Bd5 20 Nb1 Kf7 21 f3 b4 22 Bd3 f5 23 a4 Bg7 24 Kc2 B×d4 25 Nd2 Rhd8 26 Rd1 e6 27 h3 c5 28 Rhf1 Rab8 29 a5 Ra8 30 a6 Bc3 31 Rf2 Rd6 32 h4 Rad8 33 Re2 h5 34 f4 Bf6 35 g3 B×b3† 36 N×b3 c4 37 B×c4 R×d1 38 Nd2 Rg1 39 R×e6 Kg7 40 Nf1 Rc8 41 Kb3 R×c4 42 K×c4 R×f1 43 K×b4 Bd4 44 Re7† Kh6 45 Kc4 Bf2 46 Re8 Ra1 47 Ra8 B×g3 48

Kd3 B×f4 49 a7 Kg7 50 Ke2 Bg3 51 Rd8 R×a7 adjudicated 0-1

Master — Parwell 1 Nf3 Nf6 2 g3 Na6 3 Nc3 Nc5 4 d4 Nce4 5 N×e4 N×e4 6 Ng5 N×g5 7 B×g5 f6 8 Bd2 e6 9 Bg2 Be7 10 e4 O-O 11 O-O d6 12 Bc3 c6 13 a4 b6 14 d5 Ba6 15 Re1 Bc8 16 a5 b5 17 d×c6 Qc7 18 Bb4 Rb8 19 Re3 Ra8 20 Rc3 g6 21 a6 Qd8 22 Ba5 Qe8 23 Bc7 b4 24 Rc4 B×a6 25 R×a6 Qc8 26 Ra1 Q×c7 27 Ra6 Rfb8 28 Qg4 e5 29 Qe6† Kh8 30 Qf7 Rf8 31 Qd5 Rfb8 32 Qe6 Rb5 33 Qd7 Q×d7 34 c×d7 Rc5 35 R×c5 d×c5 36 Re6 b3 37 R×e7 b×c2 38 Re8† Kg7 39 R×a8 c1(Q)† 40 Bf1

Mychess — Kaissa 1 d4 Nf6 2 c4 c5 3 d5 d6 4 Nc3 g6 5 Nf3 Bg7 6 e4 O-O 7 Bg5 h6 8 Bxf6 Bxf6 9 Qd2 h5 10 O-O-O Bg4 11 Be2 Nd7 12 h3 Bxf3 13 Bxf3 Qa5 14 g4 Bd4 15 Kb1 Ne5 16 Be2 Bxf2 17 gxh5 Bd4 18 hxg6 fxg6 19 Nb5 Qxd2 20 Rxd2 Be3 21 Rdd1 Rf2 22 Nc3 Raf8 23 h4 Bd4 24 Rde1 R2f4 25 Rc1 Bxc3 26 Rxc3 Rxe4 27 Rc2 Rf2 28 Bd1 Rxc2 29 Kxc2 Rxc4+ 30 Kd2 Rd4+ 31 Ke3 Nc4+ 32 Ke2 Nxb2 33 Bc2 c4 34 Rb1 c3 35 Rc1 Rd2+ 36 Kf3 Nd3 37 Bxd3 Rxd3+ 38 Ke4 Rh3 39 Kd4 b5 40 Re1 c2 41 Rg1 Kf7 42 Rc1 Rxh4+ 43 Kd3 Rh5 44 Kd4 Rh2 45 Kd3 Kf6 46 Re1 a6 47 a3 g5 48 Re6+ Kf5 49 Re1 g4 50 Kc3 g3 51 Kb2 g2 52 Rg1 Rh1 0-1

Chaos — Dark Horse 1 d4 d5 2 c4 e6 3 Nc3 c5 4 c×d5 e×d5 5 Nf3 Nf6 6 Bg5 Be6 7 B×f6 g×f6 8 e4 d×e4 9 N×e4 c×d4 10 Bb5† Bd7 11 B×d7† N×d7 12 Q×d4 Qb6 13 Q×b6 a×b6 14 O-O Rg8 15 Rfd1 Rg6 16 Nd6† B×d6 17 R×d6 f5 18 Re1† Kd8 19 Rd5 Ra5 20 Red1 R×d5 21 R×d5 Rc6 22 h3 Rc5 23 R×c5 b×c5 24 Ng5 Ne5 25 N×h7 Nd3 26 Ng5 f6 27 Nf7† Ke7 28 Nh6 N×b2 29 N×f5† Ke6 30 Ne3 Nd3 31 a4 Kd7 32 g3 Nb2 33 a5 Nd3 34 h4 Ne5 35 Kf1 Nc6 36 Nc4 Ke6 37 h5 Kd5 38 h6 Ne5 39 N×e5 b6 40 a×b6 K×e5 41 b7 Ke6 1-0

Duchess — Challenger X 1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 Nf6 5 O-O N*e4 6 d4 b5 7 Bb3 d5

8 d×e5 Be6 9 c3 Bc5 10 Qe2 O-O 11 Be3 B×e3 12 Q×e3 Na5 13 Nbd2 N×b3 14 a×b3 N×d2 15 Q×d2 c5 16 Qe3 Qc8 17 Ríc1 f6 18 b4 c×b4 19 c×b4 Qd7 20 Nd4 f×e5 21 Q×e5 Bg4 22 f3 Rae8 23 Qg3 B×f3 24 Rc7 Qg4 25 N×f3 Q×g3 26 h×g3 Re4 27 R×a6 R×b4 28 Raa7 Rg4 29 Kh2 h5 30 Rd7-Rf5 31 Rd8+Kh7 32 Raa8 g5 33 Rd7+ Kg6 .34 Ra67 Rf6 35 Rdd6 R×d6 36 R×d6+ Kg7 37 R×d5 Rb4 38 R×g5+Kh6 39 Rc5 R×b2 40 Nd4 b4 41 Rb5 Rb1 42 Nc6 b3 43 Na5 Re1 44 N×b3 Re2 45 Nd4 Re8 46 Rb6+Kh7 47 Nf5 Rh8 48 Rh6+Kg8 49 Rf6 Rh7 50 Rd6 adjudicated 1-0

Belle — BCP 1 e4 c5 2 c3 Nf6 3 e5 Nd5 4 d4 cxd4 5 cxd4 d6 6 Nf3 Nc6 7 Bc4 e6 8 Bb3 dxe5 9 dxe5 Bb4† 10 Bd2 O-O 11 O-O b5 12 Bxd5 Qxd5 13 Bxb4 Qxd1 14 Rxd1 Nxb4 15 Nc3 Ba6 16 a4 bxa4 17 Rxa4 Rfb8 18 Rd4 Nc6 19 Rxa6 Nxd4 20 Nxd4 Rb4 21 Nc6 Rxb2 22 f4 Rb7 23 Kf2 h5 24 Ke3 Rb2 25 Ne2 Rb3† 26 Ke4 Rb2 27 Kf3 Rb3† 28 Kf2 Rb7 29 h3 Rd7 30 Ned4 Rb7 31 g4 hxg4 32 hxg4 Rb2† 33 Ke3 Rb7 34 f5 exf5 35 Nxf5 Rd7 36 Nd6 Kh8 37 Nb5 Rd1 38 Ncxa7 Rad8 39 Rd6 R8xd6 40 exd6 f6 41 Nc6 g5 42 Nbd4 Rxd4 43 Nxd4 Kg7 44 d7 1-0

Ostrich — Awit 1 e4 d5 2 exd5 Nf6 3 Bb5t Bd7 4 Bc4 g6 5 Ne2 Bg7 6 Nbc3 O-O 7 d4 Re8 8 Be3 Ng4 9 Qd2 Nxe3 10 fxe3 Na6 11 O-O-O Rf8 12 Rhe1 Bg4 13 h3 Bd7 14 Kb1 Bf6 15 Ka1 Kg7 16 Kb1 Nb4 17 a3 Na6 18 Bxa6 bxa6 19 e4 c6 20 e5 Bh4 21 g3 cxd5 22 gxh4 Bxh3 23 Qg5 f6 24 exf6t exf6 25 Qxd5 a5 26 Qxd8 Raxd8 27 d5 Rd6 28 Ne4 Rb6 29 c4 Rfb8 30 Rd2 Rd8 31 c5 Rb3 32 Nd4 Rb7 33 Nc6 Re8 34 Nxa5 Rbe7 35 Nc6 Rxe4 36 Rxe4 Rxe4 37 Nxa7 Rxh4 38 c6 Bf5t 39 Kc1 Rc4t 40 Kd1 Bg4t 41 Ke1 Re4t 42 Kf2 Re7 43 d6 Rxa7 44 d7 Rxd7 45 Rxd7t Kf8 46 Rd8t Ke7 47 c7 Bd7 48 b4 h5 49 b5 f5 50 b6 g5 51 b7 Bc6 1-0

Round 2 September 26

Duchess — Master 1 e4 d6 2 d4 Nf6 3 Nc3 g6 4 Nf3 Bg7 5 Be2 O-O 6 O-O b6 7 e5 Nfd7 8 Bf4 Nc6 9 Bb5 Bb7 10 Bxc6 Bxc6 11 d5 Bb7 12 Re1 dxe5 13 Nxe5 Nxe5 14 Bxe5 f6 15 Bf4 g5 16 Bc1 Re8 17 Re6 f5 18 Bxg5 Bxc3 19 bxc3 Qxd5 20 Qxd5 Bxd5 21 Re5 e6 22 g3 Kg7 23 a3 h6 24 Bh4 Bf3 25 Re3 Bc6 26 Rae1 Bd5 27 f3 c5 28 Kg2 a5 29 Rb1 Rab8 30 Ra1 c4 31 Rd1 Kg6 32 Rd4 a4 33 Re1 b5 34 Rd2 Rf8 35 Rb1 Rf7 36 Rd4 Rd7 37 h3 Rb6 38 Re1 Rbd6 39 g4 fxg4 40 Rxg4+ Kh7 41 Bg3 Rb6 42 Bf4 h5 43 Rh4 Rg7+ 44 Kf2 Kg8 45 Rxh5 Rf7 46 Rg5+ Kf8 47 Kg3 Rf6 48 h4 Rb7 49 h5 Rh7 50 Kg4 Kf7 51 Re3 Bc6 52 Rg6 Bd7 53 Rxf6+ Kxf6 54 Bg5+ Kg7 55 Re1 e5+ 56 Kh4 Be8 adjudicated 1-0

BCP — Schach 2.3 1 e4 e5 2 Nf3 Nc6 3 d4 exd4 4 Nxd4 Bc5 5 Nb3 Bb6 6 Nc3 Nf6 7 Bb5 O-O 8 O-O Ne5 9 Bg5 c6 10 Be2 d6 11 Qc1 Be6 12 Kh1 h6 13 Bh4 g5 14 Bg3 c5 15 f4 gxf4 16 Qxf4 Bxb3 17 axb3 Nfd7 18 Qxh6 f6 19 Bc4t Rf7 20 Bxe5 Nxe5 21 Rxf6 Qxf6 22 Qxf6 Nxc4 23 Qg6t Rg7 24 Qe6t Kh7 25 bxc4 Rf8 26 Qxd6 Rf2 27 Qd3 Rfxg2 28 Qh3t Kg8 29 Qxg2 Rxg2 30 Kxg2 Kf7 31 Nd5 Ke6 32 Nxb6 axb6 33 Ra7 Ke5 34 Kf3 Kd4 35 Rxb7 Ke5 36 c3 Kd6 37 Rxb6t Ke5 38 b4 cxb4 39 Rb5t Ke6 40 Rb6t Ke5 41 Rb5t Ke6 42 Rb6t Ke5

%_4

Challenger X — Advance 1.0 1 e4 e6 2 d4 d5 3 Nc3 Bb4 4 e5 c5 5 a3 Bsc3t 6 bsc3 Nc7 7 dsc5 Qa5 8 Qd4 Nbc6 9 Qe3 d4 10 Qg3 Nf5 11 Qd3 Qsc5 12 Nf3 dsc3 13 Qb5 Qd5 14 Qsc5 esd5 15 Bg5 h6 16 Bc1 Nfd4 17 Nsd4 Nsd4 18 Bd3 Bf5 19 Bsf5 Nsf5 20 f4 Nd4 21 Kd1 O-O 22 Rb1 b6 23 Be3 Nf5 24 Bf2 Rac8 25 Ke2 Rc4 26 Rb4 Rsb4 27 asb4 Rc8 28 Ra1 Rc4 29 Kf3 g5 30 g3 Rsb4 31 Rsa7 gsf4 32 Rc7 fsg3 33 hsg3 Nd4t 34 Bsc4 Rsd4 35 Rsc3 Re4 36 Rc6 Rse5 37 Rsb6 Kg7 38 c3 h5 39 Ra6 f6 40 Ra7t Kg6 41 Rd7 Rg5 42 Kf2 Kh6 43 Rf7 Rf5t 44 Ke3 Kg6 45 Rd7 Rg5 46 Kf2 Re5 47 Kf3 Rf5t 48 Kg2 Rg5 49 Kf2 Re5 50 Kf3 Rf5t 51 Kg2 Rg5 52 Kf2 Re5 ½-½

Nuchess — Belle 1 f4 e5 2 e4 exf4 3 Nf3 d5 4 exd5 Nf6 5 Bb5t c6 6 dxc6 Nxc6 7 d4 Bd6 8 O-O O-O 9 Nc3 Bg4 10 Bc4 Bb4 11 Ne2 Bd6 12 Nxf4 Bxf3 13 Rxf3 Bc5 14 c3 Ne5 15 Be2 Nxf3t 16 Bxf3 Bd6 17 Bxb7 Rb8 18 Qf3 Re8 19 Bc6 Re1t 20 Kf2 Rxc1 21 Rxc1 Rxb2t 22 Kg1 Qc7 23 g3 Bxf4 24 gxf4 Rxa2 25 Rb1 Qd6 26 Bb5 Qb8 27 Bd3 Qe8 28 Kh1 a5 29 Bb5 Qd8 30 Bc4 Rc2 31 Rb7 Qa8 32 Bxf7 Kh8 33 Bd5 Qe8 34 Rb1 Nxd5 35 Qxd5 Rxc3 36 Qe5 Qa8t 37 d5 Rc8 38 Rg1 Qb7 39 f5 Qf7 40 Rb1 a4 41 Rb8 Rxb8 42 Qxb8t Qg8 43 Qe5 a3 44 f6 h6 45 fxg7t Qxg7 46 Qe8t Kh7 47 Qe4t Kh8 48 Qe8t Kh7 49 Qe4t Kh8 50 Qe8t \frac{1}{2} \frac{1}

Parwell — Mychess 1 f4 e5 2 fxe5 d6 3 exd6 Bxd6 4 e3 Qh4t 5 Ke2 Bxh2 6 Nf3 Bg4 7 c3 Nc6 8 Qc2 O-O-O 9 Qb3 f6 10 e4 h5 11 d3 Nge7 12 Be3 Qg3 13 Qa3 a6 14 Bf2 Qf4 15 Be3 Qg3 16 Bf2 Qe5 17 Ke1 Bxf3 18 gxf3 Qf4 19 Nd2 h4 20 Kd1 h3 21 Qb3 f5 22 Bc5 Kb8 23 d4 a5 24 Bxe7 Nxe7 25 Qf7 Nc6 26 Qxf5 Qxf5 27 exf5 Bf4 28 f6 gxf6 29 Ne4 f5 30 Nc5 Nxd4 31 cxd4 Rxd4t 32 Nd3 h2 33 Kc2 c6 34 Be2 Bg3 35 Kb1 Re8 36 Nc1 Rd5 37 a3 Rd2 38 Ka2 Rdxe2 39 Nxe2 Rxe2 40 Rhd1 Be5 41 Rab1 Re3 42 Rd8t Ka7 43 f4 Bxf4 44 Rf8 Rh3 48 Rf7 Kb6 49 b3 Rh2t 50 Kb1 c5 51 Rg7 Kc6 52 Rg6t Kd5 53 Rb6 Rh1t 54 Kc2 Rh2t 55 Kb1 Rh1t 56 Kb2 Rh2t 57 Kb1 Rh7 58 Rb5 Kc6 59 Rxa5 \(\frac{1}{2} \)

Kaissa — Ostrich 1 e4 d5 2 exd5 Nf6 3 d4 Nxd5 4 c4 Nb6 5 Nc3 e5 6 dxe5 Qxd1+ 7 Kxd1 Bg4+ 8 f3 Bf5 9 Be3 Bb4 10 Nd5 Nxd5 11 cxd5 Nd7 12 g4 Bg6 13 Rc1 O-O-O 14 a3 Ba5 15 b4 Bb6 16 Bxb6 axb6 17 d6 Nxe5 18 Rxc7+ Kb8 19 Re7 Rxd6+ 20 Ke1 Rd5 21 Bg2-Rhd8 22 Ne2 Nc4 23 a4 Nb2 24 f4 R5d7 25 Rxd7 Rxd7 26 f5 Bxf5 27 gxf5 Nxa4 28 Rg1 Nb2 29 Be4 g6 30 Rg3 Re7 31 Bc2 Rc7 32 Rc3 gxf5 33 Rxc7 Kxc7 34 Bxf5 h6 35 Nc3 Nc4 36 Ke2 Nd6 37 Bd3 Kd7 38 Kf3 Kc6 39 Kg4 b5 40 Kh5 Nc4 41 Kxh6 Nd6 42 Kg5 Kb6 43 Kf6 Kc6 44 h4 Kb6 45 h5 Kc6 46 h6 Ne8+ 47 Ke7 1-0

L'Excentrique — Chaos 1 e4 Nf6 2 e5 Nd5 3 d4 d6 4 Nf3 d*e5 5 N*e5 g6 6 c4 Nb6 7 c5 N6d7 8 Bc4 N*e5 9 d*e5 Q*d1† 10 K*d1 Nd7 11 e6 f*e6 12 Be3 Ne5 13 Bd4 Bg7 14 Re1 N*c4 15 B*g7 Rg8 16 Bc3 b6 17 b3 Na5 18 b4 Nb7 19 c*b6 c*b6 20 Be5 Kf7 21 Re3 Nd6 22 g4 Bb7 23 Nd2 Rac8 24 Rh3 h5 25 a4 Nc4 26 N*c4 R*c4 27 Kd2 Rd8† 28

Rd3 R×d3t 29 K×d3 R×g4 30 f4 Rg2 31 h4 Rh2 32 Rc1 a6 33 Rc7 Bd5 34 Bd6 R×h4 35 R×e7t Kg8 36 Re8t Kg7 37 Re7t Kf6 38 Ra7 Rh3t 39 Kd4 Ra3 40 R×a6 h4 41 Ra7 Kf5 42 Rf7t Kg4 43 Rg7 R×a4 44 R×g6t Kf3 45 Rh6 Ra2 46 R×h4 Rd2t 47 Kc3 Rg2 48 b5 Ra2 49 Rh3t Kg4 50 Rh8 Ra5 51 Kb4 Ra1 52 Rg8t Kf3 53 Rc8 Rb1t 54 Ka4 Bb3t 55 Ka3 Bd1 56 Rc3t Ke4 57 Ka2 R×b5 58 Bb8 Ra5t 59 Kb2 Kf5 60 Kc1 Rd5 61 Rg3 Bg4 62 Re3 b5 63 Re5t R×e5 X-4

Dark Horse — Awit 1 e4 c5 2 Nf3 d6 3 d4 c×d4 4 N×d4 Nf6 5 Nc3 a6 6 Be3 g6 7 Be2 Bd7 8 O-O Bg7 9 a4 O-O 10 a5 Qc7 11 Qd3 Rc8 12 Rfd1 Nc6 13 N×c6 Q×c6 14 Ra4 Bg4 15 f3 Bd7 16 Rc4 Q×c4 17 Q×c4 R×c4 18 B×c4 Rc8 19 Bd5 N×d5 20 N×d5 R×c2 21 N×e7† Kf8 22 Bg5 f6 23 N×g6† h×g6 24 R×d6 Ke7 25 Bf4 g5 26 Bg3 R×b2 27 Rd1 b5 28 a×b6 a5 29 Bd6† Ke8 30 Bc5 Kd8 31 g3 a4 32 Kh1 Rb3 33 f4 Kc8 34 f×g5 f×g5 35 Rd6 Bf8 36 Rd5 B×c5 37 R×c5† Kb8 38 R×g5 Bc6 39 Rg8† Kb7 40 Rg4 a3 41 Rh4 a2 42 Rh7† K×b6 0-1

Chess 4.9 — BeBe 1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 g6 6 Be2 Bg7 7 O-O O-O 8 Bg5 Bd7 9 Nd5 Nxd5 10 exd5 Qb6 11 Nb3 Bxb2 12 Bxe7 Re8 13 Rb1 Rxe7 14 Rxb2 Na6 15 Rb1 Nb4 16 Nc1 Qc5 17 c4 Rae8 18 Qd2 a5 19 a3 Na6 20 Rxb7 Qxa3 21 Qf4 Bf5 22 Rxe7 Rxe7 23 c5 Nxc5 24 Qxd6 Re8 25 Bb5 Rf8 26 Nb3 Qxb3 27 Qxc5 Rc8 28 Bc6 Qb4 29 Qa7 Qa3 30 Re1 Qc3 31 Qe3 Qb4 32 Ra1 Qb2 33 Qe1 Qb4 34 Qe5 Rb8 35 h3 Rc8 36 Qe3 Bc2 37 Qa3 Qxa3 38 Rxa3 a4 39 f4 f5 40 Kf2 Kf7 41 Ke3 Kf6 42 Kd4 Rb8 43 d6 Be4 44 Bxe4 Rb4† 45 Kd5 Rxe4 46 g3 h6 47 Rd3 Kf7 48 d7 Ke7 49 Kc6 adjudicated ½-½

Round 3 September 27

BeBe — Master 1 e4 d6 2 d4 Nf6 3 Nc3 g6 4 f4 Bg7 5 Nf3 c5 6 dxc5 Qa5 7 Bb5t Bd7 8 Qd3 Nxe4 9 Qxe4 Bxb5 10 Qxb7 Bxc3t 11 bxc3 Bc6 12 Qc8t Qd8 13 Qxd8t Kxd8 14 Ba3 Nd7 15 cxd6 exd6 16 O-O-O Bxf3 17 gxf3 Re8 18 Rxd6 Re6 19 Rd5 Ke8 20 f5 Re2 21 fxg6 hxg6 22 Bb4 Rc8 23 Rhd1 Nb6 24 R5d2 Rxd2 25 Rxd2 Nc4 26 Re2t Kd8 27 f4 a5 28 Bf8 Rc7 29 h3 Kc8 30 h4 Kb7 31 Re8 Kc6 32 a4 Kb7 33 Be7 Rc6 34 Bd8 f5 35 Rf8 Rd6 36 Kb1 Kc6 37 Ka2 Kd7 38 Kb3 Nd2t 39 Ka2 Nc4 40 Kb3 Nd2t 41 Ka2 Nc4 ½-½

Kaissa — Duchess 1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 d6 5 O-O Nf6 6 c3 Bd7 7 d4 Be7 8 Re1 O-O 9 Nbd2 Re8 10 Nf1 h6 11 Ng3 Bf8 12 a3 Na5 13 Bc2 c6 14 Be3 Nc4 15 b3 Nxe3 16 Rxe3 b6 17 h3 Qc7 18 Re1 c5 19 dxe5 dxe5 20 Qe2 Bb5 21 Bd3 Bxd3 22 Qxd3 Red8 23 Qe3 b5 24 Red1 c4 25 b4 a5 26 Rxd8 Rxd8 27 Qe1 Rd3 28 Kh1 g6 29 bxa5 Bc5 30 a4 bxa4 31 a6 Qa7 32 Ra2 Nd7 33 Qa1 a3 34 Qc1 Bxf2 35 Nf1 Bc5 36 Ne1 Rd6 37 Qxh6 Rd1 38 Qh4 Qxa6 39 Qd8+ Kg7 40 Qh4 Qf6 41 Qxf6+ Nxf6 42 Nf3 Rxf1+ 43 Kh2 Nxe4 44 Re2 Rh1+ 45 Kxh1 Ng3+ 46 Kh2 Nxe2 47 Ne1 a2 0-1

Belle — L'Excentrique 1 e4 c6 2 d4 d5 3 Nc3 d×e4 4 N×e4 Nd7 5 Bc4 Ndf6 6 Ng5 e6 7 Ne2 h6 8 Nf3 Bd6 9 O-O b5 10 Bd3 Ne7 11 a4 b×a4 12 R×a4 O-O 13 Be3 Ng4 14 Bf4 B×f4 15 N×f4 Qd6 16 Nh5 g6 17 Ng3 f5 18 Qa1 a6 19 Re1 Nf6 20 B×a6 B×a6 21 R×a6 R×a6 22 Q×a6 f4 23 Ne4 N×e4

24 R×e4 g5 25 c4 Rb8 26 c5 Qd5 27 Re2 g4 28 Qa7 Re8 29 Re5 Qd8 30 Ne1 Nf5 31 Qa6 N×d4 32 Qd3 Kg7 33 Qe4 Rf8 34 Kh1 Rf5 35 Nd3 Kf6 36 N×f4 g3 37 f3 g×h2 38 R×e6t N×e6 39 Q×e6t Kg7 40 Q×f5 Kg8 41 Qg6t Kh8 42 Qf7 Qg5 43 Ng6t Q×g6 44 Q×g6 h5 45 f4 h4 46 f5 h3 47 f6 h×g2t 48 Q×g2 1-0

Advance 1.0 — Parwell 1 e4 e6 2 d4 d5 3 Nc3 Bb4 4 e5 Ne7 5 Bd2 O-O 6 a3 Bxc3 7 Bxc3 Nf5 8 Nf3 Nh4 9 Nxh4 Qxh4 10 Bd3 Bd7 11 O-O Nc6 12 g3 Qh3 13 Qd2 Qh5 14 Rae1 Rac6 15 f3 Rb8 16 b3 a6 17 Qg2 a5 18 h3 b5 19 b4 a4 20 f4 Ne7 21 g4 Qh6 22 f5 exf5 23 gxf5 Rbe8 24 f6 Bxh3 25 Qxg7† Qxg7† 26 fxg7 Kxg7 27 Bxb5 c6 28 Rf3 cxb5 29 Rxh3 Kh8 30 Kh1 f6 31 e6 Nf5 32 Rf3 Nd6 33 e7 Rf7 34 Re6 Nc4 35 Be1 Rfxe7 36 Rxe7 Rxe7 37 Bh4 Kg8 38 Rg3† Kf7 39 Rf3 Re3 40 Rxf6† Kg8 41 Bf2 Rc3 42 Kg1 Nxa3 43 Rf5 Rxc2 44 Rxd5 Rc1† 45 Kh2 Rb1 46 Rd8† Kg7 47 Rd7† Kg6 48 Rd6† Kh5 49 Rd7 h6 50 Rd6 Rb2 51 Kg2 Rxb4 52 Be3 Nc2 53 Rxh6† Kg4 54 Bf2 Rb3 55 d5 Rd3 56 d6 b4 57 Rg6† Kf5 58 Rh6 a3 59 Rh5† Kg6 60 Ra5 b3 61 d7 a2 62 Ra6† Kf5 63 Ra5† Ke6 64 Ra6† Kxd7 65 Ra7† Kc6 66 Ra6† Kb5 67 Ra8 a1(Q) 68 Rxa1 Nxa1 adjudicated 0-1

Dark Horse — Challenger X 1 e4 e5 2 Nf3 Nc6 3 d4 exd4 4 Nxd4 Qh4 5 Nb5 Qxe4† 6 Be2 Bb4† 7 Bd2 Bxd2† 8 Nxd2 Qf4 9 g3 Qe5 10 Nf3 Qxb2 11 Nxc7† Kd8 12 Nxa8 Nb4 13 Bd3 Nxa2 14 O-O Nh6 15 Re1 f6 16 Qe2 Qb4 17 Rxa2 a6 18 Bxh7 d5 19 Ra4 Qc5 20 Bd3 b5 21 Raa1 Bb7 22 Qe3 Qxe3 23 fxe3 Kd7 24 Nb6† Kc7 25 Na4 bxa4 26 Rxa4 Ra8 27 Rb1 Bc8 28 Rbb4 Bb7 29 Nd4 Bc8 30 e4 Bd7 31 Ra5 dxe4 32 Bxe4 Ra7 33 Bd3 Bc8 34 Nb5† Kb6 35 Nxa7† Kxa7 36 Be4 f5 37 Rc5 fxe4 38 Rc7† Ka8 39 Rxc8† Ka7 40 Rc7† Ka8 41 Rxe4 Kb8 42 Rxg7 Nf7 43 Rxf7 a5 44 Re8# 1-0

Schach 2.3 — Ostrich 1 e4 d5 2 e×d5 Nf6 3 d4 N×d5 4 Nf3 Bg4 5 h3 Bxf3 6 Qxf3 Nc6 7 c3 e6 8 Nd2 Bd6 9 Bd3 O-O 10 O-O Qh4 11 Nc4 Rae8 12 N×d6 c×d6 13 Bd2 a5 14 b3 Kh8 15 Rae1 Kg8 16 Re2 Re7 17 Ree1 Ra8 18 Be4 Nc7 19 B×c6 b×c6 20 Q×c6 d5 21 g3 Q×h3 22 Bf4 e5 23 R×e5 Qd7 24 Qb7 R×e5 25 B×e5 Rc8 26 c4 d×c4 27 b×c4 Qd8 28 c5 Ne6 29 c6 f6 30 Bd6 N×d4 31 c7 Qd7 32 Qd5t Ne6 33 Re1 Kf7 34 Re3 g5 35 f4 gxf4 36 gxf4 Rg8t 37 Kf2 a4 38 f5 Re8 39 R×e6 R×e6 40 f×e6t Q×e6 41 Q×e6t 1-0

Awit — Chess 4.9 1 b3 Nf6 2 Bb2 d5 3 e3 Bd7 4 Nf3 e6 5 Be2 Nc6 6 O-O Be7 7 Ne5 O-O 8 Nxd7 Qxd7 9 f4 Ne4 10 Nc3 Nxc3 11 Bxc3 d4 12 Bb2 Bc5 13 Bc1 Rad8 14 Rb1 f5 15 Kf2 Nb4 16 a3 dxe3† 17 dxe3 Qc6 18 Bd3 Nd5 19 Qf3 a5 20 Bd2 e5 21 fxe5 Qe6 22 b4 axb4 23 axb4 f4 24 Bxh7† Kxh7 25 Qh5† Kg8 26 bxc5 fxe3† 27 Ke2 Qa6† 0-1

Mychess — BCP 1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 c×d5 N×d5 5 e4 N×c3 6 b×c3 Bg7 7 Bc4 c5 8 Nf3 Nc6 9 Bd5 c×d4 10 c×d4 O-O 11 Rb1 N×d4 12 N×d4 e6 13 B×b7 B×b7 14 R×b7 Q×d4 15 Q×d4 B×d4 16 Ke2 Rfc8 17 Be3 Rc2+ 18 Kd3 Rb2 19 Rb1 R×b1 20 R×b1 B×e3 21 K×e3 Rc8 22 Rb7 Rc3+ 23 Kd2 Rc4 24 Kd3 Rc1 25 R×a7 Rg1 26 g3 Rg2 27 h4 R×f2 28 Ke3 Rc2 29 a3 Kg7 30 e5 g5 31 h×g5 Rc3+ 32 Kf4 Rc2 33 g4 Rc4+ 34 Kg3 Kg6 35

Kh4 Rc5 36 a4 Kg7 37 Rb7 Rc4 38 Ra7 Rc5 39 Rb7 Rc4 40 a5 Rc5 41 a6 R=e5 42 a7 Ra5 43 Rd7 e5 44 Re7 e4 45 R=e4 R=a7 46 Re2 Ra5 47 Rc2 f5 48 g=f6t K=f6 49 g5t Ke5 50 Kh5 Ra3 \(\frac{1}{2} \frac{1}{2}

Chaos — Nuchess 1 d4 d5 2 c4 dxc4 3 Nf3 Nf6 4 e3 e6 5 Bxc4 c5 6 Qe2 a6 7 O-O b5 8 Bb3 Bb7 9 Rd1 Nbd7 10 Nc3 Bd6 11 e4 cxd4 12 Nxd4 Qb8 13 g3 b4 14 Na4 Bxe4 15 f3 Bb7 16 Nxe6 fxe6 17 Qxe6† Kd8 18 Rxd6 Qc7 19 Be3 Re8 20 Bb6 Rxe6 21 Bxe6 Bxf3 22 Rc1 Ra7 23 Rxc7 Rxc7 24 Bxc7† Kxc7 25 Rxa6 Bc6 26 Ra7† Kb8 27 Ra5 Kc7 28 b3 Kd6 29 Bxd7 Bxd7 30 Nb6 Kc6 31 Nxd7 Nxd7 32 Kf2 Nc5 33 Ke3 Kb6 34 Ra8 Ne6 35 Ke4 Kc5 36 Ra5† Kb6 37 Re5 Nc5† 38 Kd4 Nb7 39 Re7 Nd6 40 Ke5 Nb5 41 Rxg7 h5 42 Rf7 Nc3 43 Rf2 Kc5 44 Rd2 Nb5 1-O

Round 4 September 28

Chaos — Kaissa 1 d4 Nf6 2 c4 c5 3 d5 d6 4 Nc3 g6 5 e4 Bg7 6 Be2 O-O 7 Bg5 h6 8 Bf4 Qb6 9 Qd2 g5 10 Bg3 Nh7 11 Nf3 g4 12 Nh4 Ng5 13 Nf5 B×f5 14 e×f5 Qa6 15 Qe3 Re8 16 Bh4 Bf6 17 O-O Nd7 18 Rfe1 Qb6 19 Rab1 Qa6 20 Qf4 Be5 21 Qe3 Bf6 22 Qf4 Be5 23 Qd2 Bf6 24 Qe3 Ne5 25 Qg3 Rf8 26 h3 N×c4 27 Q×g4 b5 28 N×b5 Ne5 29 Qg3 Qb6 30 Nc3 Nd7 31 f4 c4t 32 Kh1 Rfb8 33 f×g5 Be5 34 Qg4 h×g5 35 Q×g5t Bg7 36 B×c4 Ne5 37 Bb5 a6 38 Be2 Ra7 39 Qg3 Kf8 40 Qf2 Rab7 41 Q×b6 R×b6 42 Bf2 R×b2 43 R×b2 R×b2 44 Rb1 R×b1t 45 N×b1 a5 46 Nd2 Bh6 47 Nc4 N×c4 48 B×c4 Bg7 49 g4 a4 50 Kg2 a3 51 Kf3 Bb2 1-0

Chess 4.9 — Schach 2.3 1 e4 e5 2 Nf3 Nc6 3 d4 exd4 4 c3 dxc3 5 Bc4 Nf6 6 Nxc3 Bd6 7 Qe2 O-O 8 O-O Ne5 9 Bd2 c6 10 Bb3 b5 11 Nxe5 Bxe5 12 f4 Bd4t 13 Kh1 Re8 14 e5 Bxc3 15 Bxc3 d5 16 a4 d4 17 Bd2 bxa4 18 Rxa4 c5 19 Ba5 Qd7 20 Qc2 Ba6 21 Rfa1 d3 22 Qxc5 Rac8 23 Qg1 Nh5 24 Bd2 Bb7 25 Rxa7 Rc7 26 Bd1 Qh3 27 Qf2 Qf5 28 Bf3 Rb8 29 Bxb7 Nxf4 30 Bxf4 d2 31 Qxd2 g5 32 Bxg5 Rcxb7 33 Rxb7 Rxb7 34 Ra8† Kg7 1-0

Ostrich — Mychess 1 e4 c5 2 Nf3 d6 3 d4 c×d4 4 N*d4 Nf6 5 Nc3 Nc6 6 Bb5 Bd7 7 O-O N*d4 8 Q*d4 e5 9 B*d7† Q*d7 10 Qd1 Be7 11 Be3 Ng4 12 a4 N*e3 13 f*e3 O-O 14 Kh1 Rac8 15 Qe1 f6 16 Qg3 f5 17 e*f5 R*f5 18 R*f5 Q*f5 19 e4 Qe6 20 Rd1 b6 21 Rd5 Qh6 22 Qg4 Rf8 23 Rd1 Rf2 24 Qc8t Bf8 25 Nb5 Qg6 26 Qc4† Kh8 27 Rg1 a5 28 Qc6 Kg8 29 Na3 Rf4 30 Re1 Be7 31 Q*b6 R*e4 32 Q*a5 R*e1† 33 Q*e1 e4 34 a5 d5 35 b4 e3 36 c3 Qd3 37 Nb1 e2 38 Nd2 Bf6 39 a6 B*c3 40 a7 Qa6 41 Q*e2 Qa1† 42 Nf1 B*b4 43 Qe6† Kf8 44 Qc8† Ke7 45 Qb7† Ke6 46 Qc8† Kf6 47 Qc6† Ke5 48 Qe8† Kf6 49 Qc6† Ke5 50 Qe8† Kf6 51 Qc6† Ke5

Master — L'Excentrique 1 Nf3 f5 2 g3 e6 3 Bg2 Nf6 4*d3 Be7 5 O-O O-O 6 Nbd2 d5 7 Nb3 b6 8 c3 Nc6 9 Nbd4 N*d4 10 N*d4 Bd7 11 Bf4 c5 12 Nc2 a5 13 f3 Nh5 14 Be5 Ba4 15 b3 Be8 16 f4 a4 17 e4 a*b3 18 a*b3 d*e4 19 d*e4 R*a1 20 N*a1 Q*d1 21 R*d1 f*e4 22 B*e4 g5 23 f*g5 B*g5 24 Re1 Rf7 25 Kg2 Bf6 26 Bf3 Ng7 27 g4 B*e5 28 R*e5 Rd7 29 Be4 Rd2† 30 Kf3 R*h2 31 Kf4 Bg6 32 B*g6 h*g6 33 Re1 Rh3 34 c4 Rd3 35 Re5 Kf7 36 Nc2 R*b3 37 Ne3 Rd3 38 Nc2 Rd2 39 Ne3 Rd4† 40 Kg5 Ne8 41 Nc2 R*c4 42 Ne3 0-1

BCP — Parwell 1 e4 c5 2 Nf3 Nc6 3 d4 e×d4 4 N×d4 Bc5 5 Nb3 Bb6 6 Nc3 Nf6 7 Bb5 O-O 8 O-O Ne5 9 Bg5 c6 10 Be2 d6 11 Qc1 Be6 12 Kh1 h6 13 Bh4 Ng6 14 B×f6 Q×f6 15 f4 Nh4 16 f5 B×b3 17 g3 d5 18 a×b3 d×e4 19 g×h4 Q×h4 20 Rf4 Qh3 21 N×e4 Rfe8 22 Nc3 Bc7 23 Rf2 Bd6 24 Rg2 Be5 25 Bg4 Qh4 26 Qd2 B×h2 27 R×h2 Q×g4 28 Rg1 Qf3+ 29 Qg2 Re3 30 R×h6 Q×g2+ 31 R×g2 a6 32 Rh4 Rd8 33 Rgh2 Re1+ 34 Kg2 Rd2+ 35 Kg3 R×h2 36 R×h2 b6 37 Kf4 Rf1+ 38 Ke4 Re1+ 39 Ne2 Rb1 40 Nd4 c5 adjudicated 1-0

Nuchess — BeBe 1 Nc3 d5 2 d4 Bf5 3 f3 Nf6 4 g4 Bg6 5 g5 Nh5 6 e4 e6 7 e×d5 e×d5 8 Qe2t Be7 9 Qb5t Nc6 10 N×d5 O-O 11 c3 B×g5 12 B×g5 Q×g5 13 Nh3 Rfe8t 14 Be2 R×e2t 15 Q×e2 Q×d5 16 O-O Rd8 17 b4 Qf5 18 Rfe1 Nf6 19 Kg2 Bh5 20 b5 Na5 21 Ng1 Rc8 22 Kh1 Rd8 23 Kg2 Rc8 24 Kh1 Rd8 25 Kg2 ½-½

Challenger X — Awit 1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 Nf3 Bg7 5 Qb3 d×c4 6 Q×c4 O-O 7 e4 Nc6 8 e5 Nd7 9 Nd5 Nb6 10 N*b6 a*b6 11 Qc3 Bg4 12 Be2 B*f3 13 B*f3 N*d4 14 B*b7 Ra7 15 Be4 B*e5 16 Bh6 Re8 17 Qc4 Qd6 18 f4 b5 19 Qd3 f5 20 f*e5 f*e4 21 Q*e4 Qb4† 22 Kf1 Q*b2 23 Rb1 Q*a2 24 Rc1 Rd8 25 Rg1 c6 26 Ke1 Qb2 27 Rb1 Qc3† 28 Kf1 Ra2 29 Rc1 Rf8† 30 B*f8 Q*c1† 31 Qe1 Qf4† 32 Qf2 Q*f2# 0-1

Advance 1.0 — Dark Horse 1 e4 e5 2 Nf3 Nc6 3 Bb5 Nf6 4 O-O Be7 5 Re1 Bd6 6 d4 N×d4 7 N×d4 a6 8 Bc4 b5 9 Bd5 N×d5 10 e×d5 O-O 11 Nf5 Bb7 12 Bh6 g×h6 13 Qg4† 1-0

Duchess — Belle 1 e4 e5 2 Nf3 Nc6 3 Bc4 Nf6 4 d4 e×d4 5 O-O N×e4 6 Re1 d5 7 B×d5 Q×d5 8 Nc3 Qa5 9 N×e4 Be6 10 Bd2 Bb4 11 N×d4 N×d4 12 c3 Be7 13 c×d4 Qd5 14 Rc1 c6 15 Bg5 B×g5 16 Rc5 Q×a2 17 N×g5 O-O-O 18 N×e6 f×e6 19 Qd2 Rd5 20 Rcc1 Rb5 21 Re2 Rd8 22 Qc3 Rd6 23 Qc2 g6 24 Rd1 Rbd5 25 Re4 e5 26 Re3 R×d4 27 Rde1 Rd2 28 Qc5 Q×b2 29 R×e5 Qb6 30 Re8t Rd8 31 R×d8t R×d8 32 Qe7 Qa5 33 Rb1 Rd7 34 Qe3 Qb6 35 Qe8t Qd8 36 Qe6 Qe7 37 Qg8t Rd8 38 Qc4 h5 39 f4 Re8 40 Ra1 Qe3t 41 Kf1 a6 42 Rd1 g5 43 f5 Qe5 44 Qd3 Rf8 45 Qd7t Kb8 46 Kg1 Qc5t 47 Kh1 Q×f5 48 Qd6t Kc8 49 h3 g4 50 h×g4 h×g4 51 Re1 Rd8 52 Qh6 Qf2 0-1

Playoff September 29

Belle — Chaos 1 e4 Ní6 2 e5 Nd5 3 d4 d6 4 Ní3 d×e5 5 N×e5 g6 6 g3 Bí5 7 c4 Nb4 8 Qa4† N4c6 9 d5 Bc2 10 Qb5 Qd6 11 N×c6 N×c6 12 Nc3 Bg7 13 Q×b7 O-O 14 Q×c6 Qb4 15 Kd2 Be4 16 Rg1 Rfb8 17 Bh3 Bh6† 18 f4 Qa5 19 Re1 f5 20 Qe6† Kí8 21 b3 Bg7 22 Bb2 Bd4 23 g4 Rb6 24 Qd7 Rd6 25 Qa4 Qb6 26 Ba3 B×c3† 27 K×c3 Rdd8 28 Rad1 Qf2 29 g×f5 Qc2† 30 Kd4 g×f5 31 Qc6 Qf2† 32 Ke5 Kg8 33 Rg1† Kh8 34 B×e7 Qb2† 35 Rd4 Qg2 36 Qf6† Kg8 37 B×g2 R×d5† 38 Ke6 h6 39 Q×h6 Re5† 40 f×e5 Rf8 41 Bf3# 1-0



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The Eleventh ACM North American Computer Chess Championship

Nashville, Tennessee, October 26-28, 1980

BELLE followed its victory at the 3rd World Computer Chess Championship in Linz, Austria with a repeat first place finish at the ACM'80 tournament in Nashville. BELLE, developed by Ken Thompson and Joe Condon of Bell Laboratories in Murray Hill, New Jersey, finished with a perfect score of four points in the Swiss-style championship. BELLE ran on an LSI-11, augmented with special chess hardware, which Thompson and Condon brought to the Opryland Hotel. Second place, with three points, went to CHAOS of the University of Michigan, the work of Fred Swartz, Mike Alexander, Jack O'Keefe, and Vic Berman. CHAOS ran on an Amdahl V/8 in Sunnyvale, California. The former North American champion, CHESS 4.9 of Northwestern University, didn't participate due to the last minute illness of one of its authors.

A new feature of this year's event was a round-robin speed chess tournament involving all ten programs. The games were played at a rate of five seconds per move. The winner, with a perfect score of nine points, was CRAY BLITZ of the University of Southern Mississippi, developed by Robert Hyatt, Albert Gower, Dave Darling, and Derek Robb. CRAY BLITZ ran on a CRAY-1 in Mendota Heights, Minnesota. BELLE came in second with eight points, having lost only to CRAY BLITZ. The level of play in both the regular tournament and in speed chess was generally impressive, with several of the programs playing at the Expert Level.

It is worthy to note that five of the ten participants brought their microcomputers and/or special chess hardware to the tournament site. At the other extreme, two of the programs ran on CRAY computers.

A complete listing of the game scores and results of the tournament are found on pages 24-26.

David Levy sent us the following analysis of the Chess Challenger vs. BELLE game (see next page).

1	e2-e4	e7-e5	•	11th ACM Tournament
2	Ng1-f3	Nb8-c6		
3	Bf1-b5	a7-a6	•	White: Chess Challenger
4	Bb5-a4	Ng8-f6		Black: BELLE
5	0-0	Nf6xe4		Notes by David Levy

The Open Variation, which leads to very lively play, has long been a favourite of Viktor Korchnoi, and was used by him several times during his 1978 World Championship match against Karpov.

6 d2-d4 b7-b5 7 Ba4-b3 d7-d5 8 d4xe5 Bc8-e6 9 c2-c3 Bf8-c5

Up to now both programs have been following well known opening theory, taken directly from their openings books. Now, however, Challenger is out of book and at once makes a serious 'strategic mistake.

10 Bc1-e3?

This allows Black to saddle its opponent with doubled, isolated pawns. Normal here is 10 Nb1-d2.

10 ... Bc5xe3 11 f2xe3 Ra8-b8 12 Nb1-d2 Ne4-c5

Threatening 13...Nc5-d3, forking the pawns on e5 and b2, as well as the slower plan of 13...0-0, followed by ...Nc5-d7, ...Rf8-e8, ...Nd7-f8 and ...Nf8-g6, when the White pawn at e5 would soon be lost.

13 Qd1-e1 Nc5-d3 14 Qe1-g3 O-O 15 Ra1-b1?

Perhaps it is a little unfair to give this move a question mark, since the correct continuation requires a depth of analysis well beyond the scope of Chess Challenger, but from the pure chess point of view White should be criticized.

The correct move was 15 Bb3-c2, when Black would almost certainly have played 15...Nd3xb2, allowing the combination 16 Bc2xh7+ Kg8xh7 17 Nf3-g5 Kh7-g8 18 Qg3-h4 Rf8-e8 19 Qh4-h7+ Kg8-f8 20 Ng5xf7 Ce6xf7 21 Rf1xf7+ Kf8xf7 22 Ra1-f1+ Qd8-f6 (22...Kf7-e6 23 Qh7-f5+ Ke6-e7 24 Qf5-f7 mate) 23 e5xf6, and White will win.

15 ... Qd8-e7? 16 Bb3-c2 Qe7-c5

BELLE had prinned all its hopes on this move when making the previous one, but a better plan would have been 15...h7-h6. Now White cannot capture on d3 because of ...0c5xe3+, but there is something better for White.

17 Nf3-g5! Nc6xe5 18 Ng5xh7 Rf8-d8

And not 18...Kg8xh7 19 Qg3xe5, when the knight on d3 is also lost.

```
19 Nh7-f6+ Kg8-f8
20 Bc2xd3 Ne5xd3
21 Nf6-h5 g7-g6
22 Nh5-f6 Be6-f5?
```

This move soon lands Black in trouble. There were numerous alternatives, such as 22...b5-b4.

```
23 Qg3-g5 b5-b4
24 Nf6-h7+ Kf8-e8
```

25 Nh7-f6+ Ke8-f8

Here, and for a few moves, White could force a draw.

```
Qc5-c4
26
    Nd2-b3
27
     Nf6-h7+
              Kf8-e8
28
              Rb8xb4
     c3xb4
     Nh7-f6+
              Ke8-f8
29
              Rd8-d6
30
     Nf6-g4
              Qc4-e4!
31
     Ng4-h6
```

A dual purpose move, putting pressure on g2 (see later) and supporting the K-side.

32 Rf1xf5!?

An interesting exchange sacrifice that just fails. But if White vacillates, Black will play ... Bf5-e6 or ... Nd3-e5 followed by ... Ne5-g4, when Black has the more active game.

```
32 ... g6xf5
33 Qg5-g8+ Kf8-e7
34 Qg8xf7+ Ke7-d8
35 Nh6xf5 Rd6-c6
36 h2-h4
```

A typical computer move, and not a bad try. In many variations White only just fails to promote this pawn.

```
36 ... Rc6-c2!

37 Qf7-f8+ Kd8-d7

38 Qf8-f7+ Kd7-c8

39 Qf7-g6 Kc8-b7

40 Nb3-a5+ Kb7-a8!!
```

A very profound move. Black gives up a pawn with check in order to cause its opponent to lose a tempo (a move) White then finds its queen on the wrong flank, and in bringing it back to the K-side White hands over the initiative for just long enough.

```
41 Qg6xa6+ Ka8-b8
```

42 Qa6-g6

Preventing mate on g2, but now comes a deadly blow.

42 ... Nd3-e5!

Threatening the queen as well as ...Rc2xg2+.

43 Qg6-g8+ Kb8-a7 44 Rb1-f1 Rb4xb2 45 Kg1-h1 Rc2xg2

White could well resign here, to save further embarrassment.

46 Na5-c6+ Ne5xc6

47 Qg8-a8+ Ka7xa8

48 a2-a4

Having delayed mate for as long as possible, White finally runs out of checks, but now a bug appears in BELLE.

48 ... Ka8-b8? 49 a4-a5 Kb8-a8? 50 a5-a6 Ka8-a7? 51 h4-h5 Ka7-b6? 52 a6-a7 Rg2-g1+

At last!

53 Kh1xg1 Qe4-g2 mate.

One of the most exciting games in the history of the ACM tournaments.

ACM's Eleventh North American Computer Chess Championship Nashville, Tennessee

October 26-28, 1980

	rate	perf	1	2	3	4	total
1 Belle	2150	2294	6+0	5+₩	2+0	3+■	4
2 Chaos	1800	1952	7+■	9+0	1-=	5+0	3
3 Challenger X	0	1807	4=0	7+■	9+■	1-0	21/2
4 BeBe	0	1762	3=■	6+■	5-0	9+0	21/2
5 Cray Blitz	1850	1791	8+0	1-0	4+=	2-≡	2
6 Mychess	0	1545	1	4-0	8+≡	10+≡	2
7 Ostrich 81	1450	1372	2-0	3-0	10+■	8=0	1%
8 Cube 2.0	0	1334	5-■	10+0	6-0	7==	1%
9 Awit	1400	1337	10+0	2-=	3-0	4-=	1
10 Clash	1000	875	9-=	8	7-0	6-0	0

Swiss Tournament*

	rate p	erf	1	2	3	4	5	6	7	8	9	total
1 Cray Blitz	2000 2	219	7+■	4+0	10+≡	5+≡	9+0	8+■	6+0	3+■	2+0	9
2 Belle	0 1	922	9+0	8+■	6+0	3+需	5+0	7+0	4+■	10+0	1-=	8
3 BeBe	0 1	722	8+0	6+■	5+0	2-0	7+■	4+0	10+■	1-0	9+≡	7
4 Challenger X	0 1	411	10=0	1	9+0	8+■	6+0	3-■	2-0	7+ਵ	5=0	5
5 Ostrich 80	0 1	294	6-■	10+0	3-■	1-0	2-■	9+0	7+=	8=0	4=■	4
6 Awit	0 1	186	5+0	3-0	2-■	7-0	4-■	10+0	1-=	9+0	8-=	3
7 Chaos	0 1	186	1-0	9+■	8=0	6+■	3-0	2-=	5-0	4-0	10=■	3
8 Mychess	0 1	186	3-■	2-0	7=■	4-0	10+=	1-0	9-≡	5=■	6+0	3
9 Cube 2.0	0 1	074	2-■	7-0	4-■	10+0	1	5■	8+0	6-■	3-0	2
10 Clash	1000	938	4==	5-■	1-0	9-≡	8-0	6	3-0	2-■	7=0	1

Speed Tournament *

^{*}Most of these programs participated in the 3rd World Computer Chess Championship and are listed on page 13. The others are: Cray Blitz, written by Robert Hyatt, Albert Gower, Dave Darling, and Derek Robb, University of Southern Mississippi, Hattiesburg, MS, running on a CRAY-1 in Mendota Heights, Minnesota; Cube 2.0, written by Lloyd and James Lank, United Computing, Kansas City, Missouri, running on a CRAY-1 in Kansas City; and Clash, written by Chris Peters, University of Washington, Seattle, Washington, running on a Texas Instruments TX990, at the tournament site.

- 2 -

Speed Game October 28

Cray Blitz — Belle 1 e4 e5 2 Nf3 Nc6 3 Bc4 Bc5 4 c3 Nf6 5 d4 exd4 6 cxd4 Bb4t 7 Bd2 Bxd2t 8 Nbxd2 d5 9 exd5 Nxd5 10 Qb3 Nce7 11 O-O O-O 12 Rfe1 c6 13 Rac1 b6 14 Ne5 Be6 15 Qg3 c5 16 dxc5 bxc5 17 Ne4 Qb8 18 Bxd5 Nxd5 19 b3 Nb4 20 Nxc5 Nxa2 21 Nxe6 fxe6 22 Rc6 Re8 23 Qh3 Qb4 24 Rd1 Qe7 25 Rd7 Qf6 26 Qg3 Re7 27 Rxe7 Qxe7 28 Qg4 Re8 29 Qc4 Qf6 30 f4 Qd8 31 Rxe6 Qd1t 32 Kf2 Qd2t 33 Kg3 Qe1t 34 Kh3 Qc3t 35 Qxc3 Rf8 36 Qd2 Nc1 37 Qxc1 Kh8 38 Qe3 Kg8 39 Nd7 g5 40 Nxf8 a5 41 fxg5 a4 42 Re8 a3 43 Qe6t Kh8 44 Nxh7t Kg7 45 Qg8# 1-0

Round 1 October 26

Awit — Clash 1 b3 e5 2 Bb2 Nc6 3 e3 Bc5 4 Nf3 d6 5 Bc4 Nf6 6 d4 exd4 7 exd4 Bb4t 8 c3 Qe7t 9 Be2 Ba5 10 O-O Nd5 11 Bc4 Nf4 12 Re1 Be6 13 d5 Kd7 14 dxc6t Kxc6 15 Nd4t Kc5 16 b4t Kxc4 17 Nd2t Kd5 18 c4# 1-0

Belle — Mychess 1 e4 e5 2 Nf3 Nf6 3 d4 exd4 4 e5 Ne4 5 Qxd4 d5 6 exd6 Nxd6 7 Nc3 Nc6 8 Qf4 Bf5 9 Bb5 Qe7† 10 Be3 Bxc2 11 Bxc6† bxc6 12 Nd4 Be4 13 O-O c5 14 Ndb5 Nxb5 15 Nxb5 g5 16 Qg3 Rc8 17 f3 c6 18 Bxg5 f6 19 Nxa7 Ra8 20 Rae1 Qxa7 21 Bxf6 c4† 22 Kh1 Bg7 23 Bxg7 Rg8 24 Rxe4† Kf7 25 Rfe1 Rxg7 26 Qf4† Kg8 27 Re8† Rxe8 28 Rxe8# 1-0

Ostrich 81 — Chaos 1 e4 c5 2 Nf3 Nc6 3 d4 cxd4 4 Nxd4 Nf6 5 Nxc6 bxc6 6 Nc3 e6 7 Be2 Bb4 8 Bd2 d5 9 f3 dxe4 10 Nxe4 Nxe4 11 fxe4 Qh4† 12 Kf1 Qf6† 13 Bf3 Ba6† 14 Kf2 Bc5† 15 Be3 Bxe3† 16 Kxe3 Rd8 17 Qc1 Qg5† 18 Kf2 Rd2† 19 Qxd2 Qxd2† 20 Kg3 Qxc2 21 b3 Qd2 22 Rhe1 Qg5† 23 Kf2 Ke7 0-1

Cray Blitz — Cube 2.0 1 e4 e5 2 Nf3 Nc6 3 Bc4 d6 4 Nc3 Nf6 5 Ng5 d5 6 exd5 Nd4 7 d6 Be6 8 Bxe6 fxe6 9 dxc7 Qxc7 10 O-O 1-0

Challenger X — BeBe 1 e4 c5 2 Nf3 d6 3 d4 c×d4 4 N×d4 Nf6 5 Nc3 g6 6 f4 Nbd7 7 Be2 Bg7 8 O-O O-O 9 Be3 a6 10 Rc1 e6 11 Nf3 Ng4 12 Qd2 N×e3 13 Q×e3 Qc7 14 Rcd1 b5 15 Qd2 b4 16 Na4 Rb8 17 b3 d5 18 e×d5 e×d5 19 Q×d5 Q×f4 20 Bc4 Nb6 21 N×b6 Qe3† 22 Kh1 Q×b6 23 Ng5 Bb7 24 Qd7 Bc8 25 B×f7† Kh8 26 Qd6 Bf5 27 Bc4 Q×d6 28 R×d6 Bc3 29 B×a6 B×c2 30 Rd7 R×f1† 31 B×f1 Bg7 32 Bc4 h6 33 Nf7† Kh7 34 Nd8 Bf5 35 Ne6 B×e6 36 B×e6 Ra8 37 Rd2 Ra6 38 Bc4 Ra7 39 Kg1 h5 40 Re2 Bd4† 41 Kf1 Kg7 42 Re4 Bb2 43 Bd3 Bc3 44 Re2 Rf7† 45 Rf2 Rd7 46 Bb5 Rd5 47 Bc4 Ra5 48 g3 Bd4 49 Rd2 Bc3 50 Re2 g5 51 Rf2 h4 52 g4 h3 53 Rf5 R×f5† 54 g×f5 Kf6 ½-½

Round 2 October 26

Mychess — BeBe 1 e4 c5 2 Nf3 d6 3 d4 c×d4 4 N×d4 Nf6 5 Nc3 g6 6 Be3 Bg7 7 Be2 O-O 8 Qd2 Nc6 9 O-O-O Bd7 10 Kb1 Re8 11 h4 Rc8 12 h5 N×h5 13 B×h5 g×h5 14 N×c6 b×c6 15 B×a7 Ra8 16 Bd4 B×d4 17 Q×d4 Ra5 18 a4 Rg5 19 f4 R×g2 20 Rdg1 R×g1+ 21 Q×g1+ Kh8 22 Qd4+ f6 23 R×h5 Rg8 24 b3 Rg3 25 b4 e5 26 f×e5 d×e5 27 Qc5 Bh3 28 Rh4 Qb8 29 Ne2 Rf3 30 a5 Bf1 31 Ng1 Rg3 32 Qe7 Rg7 33 Qc5 R×g1 34 Q×g1 Q×b4+ 35 Ka2

Bc4† 36 Ka1 Qa3† 37 Kb1 Ba2† 38 Ka1 Bb3† 39 Kb1 Qa2† 40 Kc1 Qxc2# 0-1

Cray Blitz — Belle 1 e4 e5 2 Nf3 Nc6 3 Bc4 Nf6 4 Ng5 d5 5 exd5 Na5 6 Bb5t c6 7 dxc6 bxc6 8 Be2 h6 9 Nf3 e4 10 Ne5 Bd6 11 f4 exf3 12 Nxf3 O-O 13 O-O Qc7 14 d4 c5 15 Nc3 a6 16 dxc5 Bxc5t 17 Kh1 Bb7 18 Qe1 Rae8 19 Qh4 Ne4 20 Bf4 Qc6 21 Nxe4 Qxe4 22 Bd3 Qe6 23 Qh5 Qb6 24 Qf5 g6 25 Qh3 h5 26 Bh6 Qxb2 27 Bxf8 Bxf8 28 Qd7 Re7 29 Qa4 Qc3 30 Qf4 Bd5 31 Bxa6 Qxc2 32 Rfc1 Qb2 33 Qd2 Qxd2 34 Nxd2 Bg7 35 Rab1 Bxa2 36 Rb6 Re6 37 Rb8t Kh7 38 Bf1 Bh6 39 Rb2 Bxd2 40 Rxd2 Nb3 41 Rxa2 Nxc1 42 Rd2 Kg7 43 g3 Nb3 44 Rd5 Rc6 45 Kg2 Rc2t 46 Kh3 Kf6 47 Rd6t Ke5 48 Rd8 Nd4 49 Bd3 Rf2 50 Rc8 g5 51 Rh8 Nf3 52 Rxh5 f5 53 Bxf5 Kxf5 54 g4t Kf4 55 Rh6 Rxh2# 0-1

Chaos — Awit 1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 c×d5 N×d5 5 e4 N×c3 6 b×c3 Bg7 7 Bc4 c5 8 Ne2 O-O 9 O-O Nc6 10 Be3 c×d4 11 c×d4 Bd7 12 Rc1 Rc8 13 f3 Na5 14 Bd3 Qb6 15 Qd2 R×c1 16 R×c1 Rb8 17 d5 Qd8 18 B×a7 Rc8 19 R×c8 B×c8 20 Bc5 b6 21 Be3 Be5 22 Qb4 Bc7 23 Qb2 Qd6 24 Bf4 Qc5t 25 Kh1 Nc4 26 Qc3 B×f4 27 N×f4 b5 28 Be2 Qa3 29 Q×a3 N×a3 30 Kg1 g5 31 Nd3 Kg7 32 Kf2 h6 33 Nb4 h5 34 Ke3 f5 35 Kd4 g4 36 Bd3 g×f3 37 g×f3 Kf6 38 e5t Kg6 39 Nc6 Kf7 40 Na7 Bb7 41 B×f5 Ba6 42 f4 Nc4 43 Bd3 h4 44 N×b5 B×b5 45 B×c4 B×c4 46 K×c4 Ke8 47 d6 h3 48 Kd5 e×d6 49 K×d6 Kf7 50 e6t Kg6 1-0

Ostrich 81 — Challenger X 1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Bxc6 dxc6 5 d4 exd4 6 Qxd4 Qxd4 7 Nxd4 Bd7 8 O-O Bd6 9 Be3 Nf6 10 Nc3 Ng4 11 Nf3 Nxe3 12 fxe3 Be6 13 Rfd1 O-O-O 14 Nd4 Be5 15 Nxe6 fxe6 16 Rxd8† Kxd8 17 Nd1 Kc8 18 h3 Rd8 19 Kf1 Rd2 20 c3 Kd7 21 a4 Kd6 22 Rb1 Bg3 23 c4 Kc5 24 b3 Kb4 25 a5 c5 26 e5 h5 27 e4 Kxa5 28 Ra1† Kb4 29 Rb1 Bxe5 30 Ne3 Kc3 31 Ke1 Kd3 32 Nd1 Bd4 33 b4 Rxg2 34 Rb3† Kxc4 35 Ne3† Bxe3 36 Rxe3 0-1

Cube 2.0 — Clash 1 e4 e5 2 Nf3 Nc6 3 Bb5 Bc5 4 c3 Qf6 5 b4 Bb6 6 d3 Nge7 7 Na3 d5 8 Bg5 Qd6 9 exd5 Nxd5 10 Nc4 Qe6 11 Bd2 e4 12 Ng5 Qf6 13 Nxe4 Qf5 14 Ned6t cxd6 15 Nxd6t Ke7 16 Nxf5t Bxf5 17 Qf3 Ke6 18 Bxc6 bxc6 19 c4 Ne7 20 c5 Bc7 21 Qe3t Kd7 22 Qd4t Nd5 23 Qxg7 Kc8 24 O-O-O Bg6 25 Qf6 Kb7 26 b5 Bxh2 27 bxc6t Kb8 28 Rxh2 Nc7 29 Qxg6 hxg6 30 Rxh8t Ne8 31 Bf4t Kc8 32 Rxe8# 1-0

Round 3 October 27

Clash — Ostrich 81 1 e4 d5 2 Nc3 Nf6 3 Nxd5 Nxe4 4 Nc3 Nxc3 5 dxc3 Qxd1† 6 Kxd1 Bf5 7 Bd3 e6 8 Bf4 Bc5 9 Ke2 Bxd3† 10 cxd3 Na6 11 Be5 O-O 12 b4 f6 13 bxc5 fxe5 14 d4 exd4 15 cxd4 e5 16 dxe5 Nxc5 17 Rd1 Ne4 18 Nf3 Nc3† 19 Ke3 Nxd1† 20 Rxd1 c5 21 Rd7 b6 22 e6 Rae8 23 e7 Rf7 24 Rxa7 Rexe7† 25 Rxe7 Rxe7† 26 Kd3 Ra7 27 h3 Rxa2 28 Ke3 c4 29 g4 b5 30 Ne5 Ra3† 31 Ke4 Rxh3 32 f3 c3 33 Kd4 c2 34 Nd3 Rxf3 35 Ne1 Rf4 36 Ke5 c1(Q) 37 Nd3 Qe3† 38 Kd6 Qxd3† 39 Kc6 Rxg4 40 Kc7 Rg6 41 Kb8 Qd8† 42 Kb7 Rb6† 43 Ka7 Qb8# 0-1

- 3 -

Belle — Chaos 1 e4 c5 2 c3 Nf6 3 e5 Nd5 4 d4 cxd4 5 cxd4 d6 6 Nf3 Nc6 7 Bc4 Nb6 8 Bb5 e6 9 O-O Be7 10 exd6 Qxd6 11 Nc3 O-O 12 Re1 Bd7 13 Be3 Nd5 14 Ba4 Nxe3 15 fxe3 Rfc8 16 e4 a6 17 Bxc6 Rxc6 18 Ne5 Rc7 19 Re2 Be8 20 Nf3 Rac8 21 e5 Qb4 22 d5 Qc5t 23 Kh1 exd5 24 Nxd5 Rd8 25 Rd2 Rcd7 26 b4 Qxd5 27 Rxd5 Rxd5 28 Qe1 Ba4 29 Qc3 Bc6 30 a3 Bg5 31 Qc2 Bf4 32 Re1 Rd3 33 Qc4 Bh6 34 e6 Rxa3 35 exf7t Kf8 36 Qc5t Kxf7 37 Qe7t Kg8 38 Qxd8t 1-0

Awit — Challenger X 1 b3 d5 2 Bb2 Nf6 3 e3 e6 4 Nf3 Bd6 5 Be2 O-O 6 O-O Bd7 7 Na3 Ng4 8 h3 Qe7 9 Nb5 Bxb5 10 Bxb5 Nf6 11 Ne5 c6 12 Be2 Nbd7 13 f4 Ne4 14 Nxd7 Qxd7 15 Qe1 Qd8 16 d3 Nf6 17 Bf3 Rc8 18 a4 Re8 19 Qg3 Bc5 20 Rfe1 Bb4 21 Re2 Be7 22 Rae1 Rf8 23 Kh2 Bb4 24 c3 Bd6 25 e4 dxe4 26 dxe4 Bc5 27 b4 Be7 28 Qf2 c5 29 Rd2 Qc7 30 e5 cxb4 31 exf6 Bxf6 32 cxb4 Qxf4 33 g3 Qxb4 34 Bxf6 gxf6 35 Rb2 Qxa4 36 Bxb7 Rc4 37 Ra2 Qb4 38 Rxa7 f5 39 Qe3 Rc2+ 40 Kg1 Rb8 41 Bf3 f4 42 gxf4 Rc3 43 Qe5 Rxf3 44 Kg2 Qxf4 45 Qxf4 Rxf4 46 Kg3 Rc4 47 Re7 Rb3+ 48 Kh2 Rc2+ 49 Kg1 Rg3+ 50 Kf1 Rf3+ 51 Kg1 Rxh3 52 Rf1 Rg3+ 53 Kh1 Rh3+ 54 Kg1 h5 55 Rexf7 Rg3+ 56 Kh1 h4 57 R1f4 e5 58 Rf8+ Kg7 59 R8f7+ Kg6 60 R4f6+ Kh5 61 Rh7+ Kg5 62 Rh66 e4 63 Rhg6+ Kh5 64 Rh6+ Kg4 65 Rc6 Rxc6 66 Rxc6 0-1

BeBe — Cray Blitz 1 e4 c5 2 Nf3 e6 3 Be2 Nc6 4 O-O Nf6 5 Nc3 Be7 6 d4 c×d4 7 N×d4 O-O 8 Bf4 N×d4 9 Q×d4 d6 10 e5 d×e5 11 Q×e5 Qb6 12 Rab1 Bd7 13 Rfd1 Bc5 14 Bg3 Rac8 15 a3 Rfd8 16 b4 Be7 17 Bf4 Be8 18 R×d8 B×d8 19 Rb3 Bc7 20 Qg5 B×f4 21 Q×f4 Rd8 22 Bf3 Bc6 23 B×c6 Q×c6 24 Kf1 b6 25 a4 Qe8 26 a5 e5 27 Qc4 Rd2 28 a×b6 a×b6 29 Rb2 e4 30 Ra2 h6 31 Qc7 Qe6 32 b5 Ng4 33 Ke1 R×f2 34 h3 R×g2 35 h×g4 Rg1 36 Kf2 R×g4 37 Ra8† Kh7 38 Ke3 f5 39 Rb8 f4† 40 Kd4 e3 41 Qc8 f3† 42 Kd3 0-1

Cube 2.0 — Mychess 1 d4 Nf6 2 c4 g6 3 Nf3 e6 4 Qa4 Nc6 5 a3 a5 6 Nc3 Bg7 7 e4 Ng4 8 h3 Nh6 9 d5 Ne7 10 dxe6 fxe6 11 Bg5 Nf7 12 Bh4 O-O 13 Rd1 Ne5 14 Nxe5 Bxe5 15 Bd3 d6 16 Bc2 c5 17 Qb3 Qc7 18 Nb5 Qd7 19 Qd3 Ra6 20 b3 Kg7 21 Bg3 Bxg3 22 fxg3 d5 23 exd5 exd5 24 cxd5 Nxd5 25 Nc3 Re6t 26 Ne4 Re5 27 Rf1 Qe7 28 Rxf8 Qxf8 29 Kd2 Bf5 30 Qf3 Qe7 31 Kc1 Rxe4 32 g4 Bxg4 33 hxg4 Qg5t 34 Kb1 Rd4 35 Rxd4 cxd4 36 Bd3 h6 37 Bc4 Nc3t 0-1

Round 4 October 28

Clash — Mychess 1 e4 e5 2 Bc4 Nf6 3 Nc3 Nc6 4 d3 Bc5 5 Qf3 d6 6 Be3 Bg4 7 Qg3 Bxe3 8 Qxe3 Nd4 9 Rc1 O-O 10 Nce2 b5 11 Bb3 Nxb3 12 cxb3 c5 13 Nf3, Qa5† 14 Nc3 b4 15 Nd5 Nxd5 16 exd5 Qxa2 17 Rc4 f5 18 h3 Bxf3 19 Qxf3 a5 20 O-O Qxb2 21 Qd1 a4 22 bxa4 Qa2 23 Qf3 Qxa4 24 g4

f×g4 25 Q×g4 Rf6 26 Qe4 Rf4 27 Qe3 R×c4 28 d×c4 Qa3 29 Re1 Q×e3 30 R×e3 Ra3 31 Kg2 R×e3 32 f×e3 b3 33 Kf3 b2 34 h4 b1(Q) 35 e4 Qd3† 36 Kf2 Q×e4 37 h5 Q×c4 38 Kg3 g6 39 h×g6 h×g6 40 Kg2 e4 41 Kg3 Q×d5 42 Kh4 e3 43 Kg3 Qf5 44 Kh2 e2 45 Kg3 c4 46 Kg2 c3 47 Kg3 c2 48 Kg2 d5 49 Kg3 d4 50 Kg2 d3 51 Kh2 d2 52 Kg3 c1(R) 53 Kg2 d1(R) 54 Kg3 Rg1† 55 Kh4 Qg4# 0-1

Challenger X — Belle 1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 Nf6 5 O-O N×e4 6 d4 b5 7 Bb3 d5 8 d×e5 Be6 9 c3 Bc5 10 Be3 B×e3 11 f×e3 Rb8 12 Nbd2 Nc5 13 Qe1 Nd3 14 Qg3 O-O 15 Rab1 Qe7 16 Bc2 Qc5 17 Ng5 Nc×e5 18 N×h7 Rfd8 19 Nf6t Kf8 20 B×d3 N×d3 21 Nh5 g6 22 Nf6 Bf5 23 Qg5 b4 24 Nh7t Ke8 25 Nf6t Kf8 26 Nb3 Qc4 27 Nh7t Ke8 28 c×b4 R×b4 29 Nf6t Kf8 30 Ng4 Rd6 31 Nh6 Qe4 32 Rxf5 gxf5 33 Qg8t Ke7 34 Qxf7t Kd8 35 Nxf5 Rc6 36 h4 Rc2 37 Qf8t Kd7 38 Qf7t Kc8 39 Qg6 Kb7 40 Na5t Ka8 41 Q×a6t Kb8 42 Qg6 Ne5 43 Qg8t Ka7 44 Rf1 Rb×b2 45 Kh1 R×g2 46 Nc6t N×c6 47 Qa8t K×a8 48 a4 Kb8 49 a5 Ka8 50 a6 Ka7 51 h5 Kb6 52 a7 Rg1t 53 K×g1 Qg2# 0-1

Chaos — Cray Blitz 1 d4 d5 2 c4 e6 3 Nc3 Nf6 4 Bg5 Be7 5 e3 O-O 6 Nf3 h6 7 Bh4 Ne4 8 Bxe7 Qxe7 9 cxd5 Nxc3 10 bxc3 exd5 11 Qb3 Rd8 12 c4 dxc4 13 Bxc4 Nc6 14 Be2 Rd6 15 O-O Be6 16 Qc3 Rad8 17 Rab1 Bxa2 18 Rxb7 a5 19 Bd3 Bd5 20 Rfb1 a4 21 Qa1 Ra8 22 Nd2 Rdd8 23 Nc4 Qe6 24 Rxc7 Qg4 25 Bf1 Na5 26 Nb6 Nb3 27 Qa2 Be4 28 Nxa8 Bxb1 29 Qxb1 Rxa8 30 Bc4 Nxd4 31 exd4 Qxd4 32 Bxf7† Kh8 33 g3 Rf8 34 Qf5 Qa1+ 35 Kg2 Qb2 36 Bg6 Qb8 37 Qd7 Qa8+ 38 Kg1 Rg8 39 Ra7 Qf3 40 Rxa4 Qc3 41 Qd5 Rf8 42 Kg2 Qb2 43 Bf5 Qb8 44 Bd3 Qb2 45 Rf4 Rg8 46 Qe4 1-0

BeBe — Awit 1 e4 c5 2 Nf3 d6 3 d4 c×d4 4 N×d4 Nf6 5 Nc3 a6 6 Be2 e5 7 Nf3 Nc6 8 O-O Be7 9 Be3 Bd7 10 Nd5 O-O 11 Bb6 Qc8 12 N×f6t g×f6 13 c3 f5 14 Bd3 Bd8 15 B×d8 Q×d8 16 e×f5 d5 17 Bc2 Qb6 18 f6 Qb5 19 Qd2 Rfc8 20 Qh6 1-0

Ostrich 81 — Cube 2.0 1 e4 c5 2 Nf3 Nf6 3 Nc3 Nc6 4 Be2 d6 5 O-O Bg4 6 h3 Bxf3 7 Bxf3 g6 8 Re1 Bh6 9 e5 Nxe5 10 Bxb7 Rb8 11 Ba6 Qa5 12 Be2 O-O 13 d3 Bxc1 14 Qxc1 Nc6 15 Rb1 Nd4 16 a4 Qb4 17 Kh1 a5 18 Qd1 Qb7 19 b3 Qb4 20 Ne4 Nxe4 21 dxe4 Nxe2 22 Rxe2 c4 23 Re3 Rfc8 24 Qf3 Rb6 25 Qg4 Rcb8 26 Qh4 Qd2 27 Rbe1 Qxc2 28 R1e2 Qd1+ 29 Re1 Qd4 30 bxc4 e5 31 Rc1 Rb4 32 Ra3 Rxc4 33 Rxc4 Qxc4 34 Ra1 f5 35 f3 fxe4 36 fxe4 d5 37 Qe1 Qxe4 38 Qxa5 Rb1+ 39 Rxb1 Qxb1+ 40 Kh2 Qb7 41 Qd8+ Kg7 42 a5 Qf7 43 a6 Qf4+ 44 Kh1 Qf1+ 45 Kh2 Qxa6 46 Qe7+ Kh6 47 Qxe5 Qd3 48 Qf4+ Kg7 49 Qe5+ Kg8 50 Qe8+ Kg7 51 Qe7+ Kh6 52 Qh4+ Kg7 ½-½

Microcomputer Chess Championship San Iose, Calif

September 5-7, 1980

	rate	perí	1	2	3	4	total
1 Challenger	1200	1582	6+0	2+=	4+0	3+■	4
2 Mychess B	1200	1270	9+=	1-0	5+≡	4==	21/4
3 Tryom	1200	1270	8+=	5=0	7+=	1-0	2%
4 Boris 2.5	1200	1270	10+=	8+0	1	2=0	24
5 Boris X	1200	1270	7+0	3=■	2-0	9+=	24
6 Atari A	1200	1199	1-=	10+0	8=0	7=0	2
7 Sfinks	1200	1128	5-■	9+0	3-0	6=■	1%
8 Mychess A	1200	1128	3-0	4	6==	10+=	14
9 Atari B	1200	1051	2-0	7-=	10+=	5-0	1
10 Lane				6-4			

Round 1

Challenger — Atari A 1 d4 d5 2 c4 d×c4 3 Nf3 Nc6 4 e4 Bg4 5 B×c4 e5 6 Qb3 Bb4† 7 Bd2 B×f3 8 B×f7† Kf8 9 B×b4† N×b4 10 B×g8 Qe7 11 Q×f3† K×g8 12 Qb3† Kf8 13 d×e5 Rd8 14 O-O Nd3 15 e6 Nc5 16 Qf3† Qf6 17 Qa3 Qe5 18 f4 Qd4† 19 Rf2 b5 20 Nd2 Rd6 21 Nf3 Qc4 22 b3 Qc3 23 Rc1 Qe3 24 Q×c5 Q×c5 25 R×c5 R×e6 26 e5 c6 27 f5 Rh6 28 e6 Rf6 29 R×c6 Ke7 30 Rc7† Kd6 31 Rd7† Kc5 32 Ng5 Kb6 33 R×g7 h5 34 Ne4 Rff8 35 f6 Rhg8 36 e7 Rc8 37 R×g8 R×g8 38 f7 Rc8 39 Rf1 Rc2 40 f8(Q) R×a2 41 e8(Q) 1-0

Atari B — Mychess B 1 e4 e5 2 Nf3 Nc6 3 d4 e×d4 4
N×d4 Nf6 5 Nc3 Bb4 6 Bg5 Qe7 7 f3 Qe5 8 B×f6 Q×f6 9
a3 B×c3+ 10 b×c3 O-O 11 Rb1 Re8 12 Be2 Qg5 13 Kf1
Qf6 14 Qd3 Ne5 15 Qe3 b6 16 Bd3 c5 17 Nf5 d5 18 g4
B×f5 19 g×f5 N×d3 20 Q×d3 c4 21 Q×d5 Q×c3 22 f4 Rad8
23 Qc6 Qf3+ 24 Kg1 R×e4 25 Qc7 Qg4+ 26 Kf1 R×f4+ 27
Ke1 Qh4+ 28 Ke2 Qf2# 0-1

Mychess A — Tryom 1 c4 e5 2 Nc3 Nc6 3 Nf3 Bc5 4 Ne4 Bb4 5 a3 Be7 6 d3 d5 7 cxd5 Qxd5 8 Nc3 Qc5 9 Qa4 Be6 10 Be3 Qd6 11 Nb5 Qd7 12 Bg5 Bxg5 13 Nxg5 Nf6 14 Nxe6 fxe6 15 Rc1 O-O 16 Qh4 a5 17 b3 Nd5 18 e4 Nf4 19 Rc3 Kh8 20 g3 Ng6 21 Qh5 Qe7 22 Bg2 Rad8 23 O-O Rf6 24 Rfc1 Rf7 25 Bh1 Rf6 26 Qg5 h6 27 Qg4 Kg8 28 f3 Kf8 29 R1c2 Kg8 30 h3 Kh8 31 Rc1 Kh7 32 R1c2 Nf4 33 gxf4 Rg6 34 fxe5 Rxg4 35 fxg4 Rd7 36 d4 Qf8 37 Rc5 Qd8 38 R5c4 Nxd4 39 Nxd4 Rxd4 40 Rxc7 Rd2 41 Bf3 Qd4† 42 Kh1 Rxc2 43 Rxc2 Qd3 44 Rf2 Qxb3 45 Kg2 Qxa3 46 Rc2 b5 47 h4 a4 48 h5 b4 49 Rc5 b3 50 Rb5 Qa2† 51 Kf1 0-1

Lane — Boris 2.5 1 a3 Nc6 2 h4 Nf6 3 g3 d5 4 Bh3 Bg4 5 Nf3 Bkh3 6 Rkh3 e5 7 b3 e4 8 Nh2 Qd7 9 g4 Nkg4 10 Nkg4 Qkg4 11 Rh1 Qg2 12 Rf1 Qh3 13 Nc3 O-O-O 14 d3 Qkh4 15 dke4 d4 16 Nb5 a6 17 Nkd4 Rkd4 18 Bd2 Bd6 19 Rg1 Bf4 20 e3 Bke3 21 Qg4† Qkg4 22 Rkg4 Bkd2† 23 Ke2 Bc3 24 Ra2 f5 25 Rkg7 Rke4† 26 Kf3 Bkg7 27 a4 Nb4 28 Ra3 Bb2 29 c3 Bka3 30 ckb4 Rkb4 31 a5 Rkb3† 32 Kf4 Rb5 33 f3 Bc1† 34 Kg3 Rka5 35 Kh4 Bf4 36 Kh3 Ra2 O-1

Boris X — Sfinks 1 f4 c6 2 Nc3 d5 3 Nf3 d4 4 Nb1 e6 5 e3 Bc5 6 Bc4 d×e3 7 d×e3 Q×d1t 8 K×d1 Nf6 9 Bd2 O-O 10 Bd3 Rd8 11 b4 Be7 12 a4 Nd5 13 b5 Bf6 14 Ra2 c×b5 15 e4 Nb6 16 a×b5 Bd7 17 Ba5 B×b5 18 B×b6 Bc4 19 B×d8 B×a2 20 B×f6 B×b1 21 Bc3 Nc6 22 Ke2 Ba2 23 Ra1 e5 24 R×a2 e×f4 25 Bd2 h6 26 Rb2 b6 27 B×f4 Rd8 28 e5 Rd7 29 Bb5 Nd4t 30 N×d4 R×d4 31 Kf3 Rd1 32 Be2 Rd7 33 Bb5 Rc7 34 Kg4 Kf8 35 e6 Re7 36 Bd6 h5t 37 K×h5 g6t 38 Kg5 a6 39 Bc6 f×e6 40 K×g6 e5 41 R×b6 Kg8 42 Rb8t Re8 43 R×e8# 1-0

Round 2

Mychess B — Challenger 1 d4 N/6 2 c4 e6 3 N/3 b6 4 g3 Bb7 5 Bg2 Be7 6 O-O O-O 7 Nc3 Ne4 6 Qc2 N·sc3 9 Q·sc3 d5 10 Ne5 Na6 11 Bd2 f6 12 Nd3 c5 13 c×d5 e×d5 14 d×c5 b×c5 15 Rad1 Rb8 16 b3 Qd7 17 Bf4 Rbe8 18

Ríe1 g5 19 Bd2 Bd6 20 e3 Qf5 21 f4 h5 22 f×g5 f×g5 23 Rf1 Qg4 24 R×f8† B×f8 25 Nf2 Qf5 26 Qd3 Q×d3 27 N×d3 Bg7 28 Rf1 Rf8 29 Rc1 Rc8 30 Bc3 B×c3 31 R×c3 Kf7 32 Kf2 Ke6 33 Bf3 Rf8 34 Ke2 R×f3 35 N×c5† N×c5 36 R×c5 Rf7 37 e4 Kd6 38 Ra5 d×e4 39 R×g5 Rh7 40 Ke3 Bc6 41 Rg6† Kd5 42 Rg5† Ke6 43 Rg6† Kd7 44 Rf6 Kc7 45 Rf5 Kd6 46 Rf6† Kd5 47 Rf5† Ke6 48 Rc5 Kd6 49 Kd4 a6 50 Ra5 Bb7 51 Rf5 Ke6 52 Re5† Kf6 53 Re8 Rd7† 54 Ke3 Rd3† 55 Ke2 Bc6 56 Rf8† Kg7 57 Rf5 Bb5 58 Ke1 Kg6 59 Rc5 e3 60 Re4 Rc3 61 Kd1 e2† 62 Kd2 Rc6 63 Re5 Rd6† 64 Ke1 Rd1† 65 Kf2 Rf1† 66 Kg2 Bc6† 67 Kh3 e1(Q) 68 R×e1 R×e1 69 b4 Kg5 70 b5 a×b5 71 a3 Re2 72 g4 Re3# 0-1

Tryom — Boris X 1 e4 d6 2 d4 Nf6 3 Nc3 Nc6 4 Bf4 e5 5 d×e5 d×e5 6 Q×d8t K×d8 7 O-O-O-Ot Bd6 8 Be3 Be6 9 Nf3 Nb4 10 N×e5 N×a2t 11 N×a2 B×a2 12 f3 Be6 13 Nc4 B×c4 14 B×c4 Ke7 15 h4 a6 16 Kb1 b5 17 Be2 Rhd8 18 Bg5 Be5 19 R×d8 K×d8 20 f4 B×f4 21 B×f4 N×e4 22 Bf3 f5 23 Re1 Rb8 24 B×e4 f×e4 25 R×e4 Rb6 26 h5 g6 27 h×g6 R×g6 28 g4 c5 29 g5 c4 30 b4 Kd7 31 c3 Re6 32 R×e6 K×e6 33 Kb2 Kf5 34 Be3 Ke4 35 Bd4 Kf4 36 Bf6 Kf5 37 Be7 Ke6 38 Bc5 Kf5 39 g6 h×g6 40 Bd4 g5 41 Kc2 g4 42 Kd2 g3 43 Kc2 g2 44 Kd2 Kg4 45 Ke2 Kh3 46 Bg1 Kg3 47 Ke3 Kg4 48 Kf2 Kf5 49 K×g2 Kf4 50 Bd4 Kg4 51 Kh2 Kf3 52 Kh1 Kg3 53 Kg1 Kf3 54 Kf1 Ke4 55 Kg1 Kf3 56 Be5 Ke4 57 Bd6 Kd3 58 Be5 Ke4 59 Bf6 Ke3 60 Be5 Kf3 61 Kh2 Ke4 62 Bd4 Kf3 63 Kh3 Kf4 64 Kh4 Kf5 65 Kh3 Kf4 66 Kh2 Kf3 67 Kg1 Kg3 68 Be5† Kf3 69 Kf1 Ke4 70 Bd4 Kf3 71 Ke1 Ke4 72 Kd1 Kf5 73 Kd2 Ke4 74 Kc1 Kf5 75 Kc2 Ke4 76 Kb2 Kf5 77 Ka2 Ke4 78 Kd3 Rd3 79 Kb2 Kd2 80 Ka2 Ke2 81 Ka3 Kd2 82 Be5 Kd3 83 Ka2 Kc2 84 Ka1 Kd3 85 Kb1 Ke4 86 Bd4 Kf5 87 Ka1 K-4

Boris 2.5 — Mychess A 1 c4 c5 2 Nf3 Nf6 3 d4 c×d4 4 'N×d4 e5 5 Nf3 Nc6 6 Nc3 'Qa5 7 Bd2 Bb4 8 a3 B×c3 9 B×c3 Qc5 10 e3 O-O 11 b4 Qb6 12 N×e5 Re8 13 c5 Qc7 14 f4 b6 15 Bb5 N×e5 16 f×e5 Ne4 17 Bb2 Qb7 18 Bc4 Qb8 19 Bd5 Bb7 20 Qd4 Ng5 21 O-O b×c5 22 Q×c5 Rc8 23 Qb5 B×d5 24 Q×d5 Qb6 25 Qd3 Ne6 26 Rad1 Rab8 27 Rd2 Re8 28 Rc1 Rb7 29 Rc4 Qb5 30 Qc3 Rbb8 31 Kf2 Rb6 32 Qd3 Nf8 33 Kf3 Rc6 34 R×c6 Q×c6t 35 e4 f5 36 e×f6 g×f6 37 b5 Qe6 38 Bd4 Ng6 39 Bc3 1-0

Atari A — Lane 1 e4 Nh6 2 Nf3 c5 3 d4 b6 4 d×c5 b×c5 5 Bf4 f6 6 Nc3 Nc6 7 Bc4 g5 8 Be3 Na5 9 Qd5 Bb7 10 Qd3 Qb6 11 O-O Q*b2 12 Bb5 Bc6 13 B*c5 B*b5 14 N*b5 Rc8 15 Rfb1 Q*a1 16 R*a1 R*c5 17 N*a7 e6 18 a4 f5 19 N*g5 Bg7 20 Rb1 f*e4 21 N*e4 Rc7 22 Nb5 Rc6 23 Nd4 Rc7 24 Qg3 B*d4 25 Q*c7 Nc6 26 Rb7 Kf8 27 Qc8t Nd8 28 Q*d8t Kf7 29 R*d7t Kg6 30 Qg5# 1-0

Sfinks — Atari B 1 d4 d5 2 e3 Nc6 3 Bb5 e6 4 Bxc6t bxc6 5 Nf3 Nf6 6 O-O Rb8 7 c3 Bd7 8 Ne5 Bd6 9 Qa4 Bxe5 10 dxe5 Ne4 11 Qxa7 O-O 12 Qd4 Qe7 13 Qd1 Nc5 14 b4 Ne4 15 f3 Ng5 16 h4 Nxf3t 17 Rxf3 Qxh4 18 Rh3 Qe4 19 Qd4 Qf5 20 Nd2 Be8 21 Nf3 Bd7 22 Qd1 - 2 -

Qe4 23 Rh4 Qf5 24 Bb2 c5 25 Rf4 Qg6 26 Qc1 c4 27 Qd2 Qd3 28 Rd4 Qf5 29 e4 dwe4 30 Nh4 e3 31 Nwf5 ewd2 32 Ne7† Kh8 33 Rwd7 Rfd8 34 Rwd8† Rwd8 35 Rd1 Rd7 36 Nc6 Rd5 37 Nd4 c5 38 Nf3 cwb4 39 cwb4 Rb5 40 Bc3 Kg8 41 Nwd2 Rd5 42 Rc1 Kf8 43 Nwc4 Rd7 44 a4 Rd8 45 a5 1-0

Round 3

Challenger — Boris 2.5 1 e4 e5 2 Nf3 Nf6 3 N=e5 d6 4 NI3 N=4 5 Qe2 Qe7 6 d3 Nf6 7 Nc3 Nc6 8 Bg5 Be6 9 Ne4 O-O-O 10 d4 Bc4 11 B=f6 g=f6 12 N=d6t R=d6 13 Q=7 B=e7 14 B=c4 N=d4 15 N=d4 R=d4 16 B=f7 Re4t 17 Kf1 Rd8 18 Re1 R*e1† 19 K*e1 Rd6 20 Ke2 f5 21 c3 Bg5 45 Be2 h4 46 gxh4 Bd6 47 Kd2 Bxf4† 48 Kd3 Bg3 49 h5 Br2 50 Br3 Kr5 51 Ke2 Bc5 52 Kd3 Kr4 53 h6 Bd6 54 a6 c5 55 a7 Kxf3 56 a8(Q)t 1-0

- Tryom 1 d4 d5 2 e3 Nc6 3 Bb5 Bf5 4 B×c6t bxc6 5 Ne2 Qd6 6 O-O Nf6 7 Ng3 Bg4 8 f3 Bd7 9 Nc3 Rb8 10 e4 dxe4 11 Ngxe4 Nxe4 12 Nxe4 Qd5 13 Nc3 Qf5 14 Re1 e6 15 Re5 Qg6 16 Ra5 Rb7 17 Rg5 Qf6 18 Ne4 Qh6 19 Rb5 Rxb5 20 Bxh6 gxh6 21 Nf6† Kd8 22 Nxd7 Kxd7 23 Rb1 Bd6 24 Kh1 Rg8 25 Qd3 f5 26 b3 Kc8 27 Re1 Rg6 28 a4 Rd5 29 c3 Kb7 30 c4 Ra5 0-1

Boris X - Mychess B 1 c4 c5 2 Nf3 Nf6 3 d4 cxd4 4 N×d4 d6 5 Nc3 e5 6 Ndb5 a6 7 Na3 Be6 8 e4 Nc6 9 Be2 Nd4 10 Be3 Nxe2 11 Qxe2 Be7 12 O-O O-O 13 Nd5 Rc8 14 Bb6 Qd7 15 Nxe7t Qxe7 16 Qd3 Nd7 17 Ba7 b6 18 Qe3 Qd8 19 14 exf4 20 Qxf4 Qc7 21 Rf2 Qxa7 22 Qxd6 Bxc4 23 Nxc4 Rxc4 24 Qd5 b5 25 Qf5 g6 26 Qf3 Rc2 27 Kf1 Qxf2t 28 Qxf2 Rxf2t 29 Kxf2 Rc8 30 Re1 RC2 + 31 Re2 Rxe2 + 32 Kxe2 Ne5 33 Kd2 b4 34 Kc2 Ng4
35 Kb3 Nxh2 36 Kxb4 Ng4 37 Ka5 Ne3 38 g3 f5 39 exf5
Nxf5 40 g4 Ne3 41 g5 Nc4 + 42 Kxa6 Nxb2 43 Kb5 Nd3
44 a4 Ne5 45 a5 Nf7 46 a6 Nd6+ 47 Kc6 Nc8 48 Kb7 Nd6t 49 Kb8 Nb5 50 a7 Nxa7 0-1

- Mychess A 1 d4 d5 2 Nf3 Nf6 3 Bf4 Nc6 4 Nc3 Nh5 5 e3 Nxf4 6 exf4 e6 7 Bd3 Qf6 8 Qe2 Nxd4 9 Qe5 Nxf3t 10 gxf3 Qxe5t 11 fxe5 f6 12 f4 fxe5 13 fxe5 Bc5 14 O-O O-O 15 Rad1 Rf4 16 Ne2 Ra4 17 Nc3 Rb4 18 Nb5 Bd7 19 Nxc7 Rc8 20 Na6 bxa6 21 Bxa6 Rc6 22 Bd3 Rxb2 23 Ra1 Bd4 24 Rfb1 Rbxc2 25 Bxc2 Rxc2 26 Rb8t Bc8 27 Rab1 Bxe5 28 Ra8 Bd4 29 Rbb8 Bx2t 30
Kf1 Bb6 31 Rxc8t Rxc8 32 Rxc8t Kf7 33 Ke2 g6 34 Kd3
e5 35 h4 e4t 36 Kc3 Kf6 37 Rc6t Ke5 38 Rc8 Bd4t 39
Kd2 Bf2 40 Rc7 h5 41 Kc2 Kf6 42 Kc3 Bxh4 43 Rxa7 Be1t 44 Kc2 h4 45 Ra6t Kf5 46 Rd6 Ke5 47 Rxg6 Kf5 48 Rg7 Kf6 49 Rc7 Bg3 50 Rb7 h3 51 a4 h2 52 Rh7 Ke5 53 a5 Kd4 54 a6 Bb8 55 R×h2 Ba7 56 Rh7 Bb6 57 a7 B×a7 58 R×a7 Ke3 59 Kc3 d4t 60 Kc4 d3 61 Kd5 d2 62 Ra3t Ke2 63 Ra1 d1(Q)t 64 Rxd1 Kxd1 65 Kxe4 Ke2 14-1/4

Lane — Atari B 1 g4 c5 2 g5 Nc6 3 h4 e5 4 Bg2 d5 5 a4 Nge7 6 Bf3 Nf5 7 Bh5 Bd6 8 Nc3 Be6 9 Nb5 O-O 10 Rg4 Nce7 11 e4 d.e4 12 N.ed6 N.ed6 13 B.e6 f.e6 14 b3 Nd5 15 Ba3 Qc7 16 Nh3 Rad8 17 c4 Nb4 18 Ng1 Nd3+ 19 Ke2 Nxf2 20 Qc2 Nxh1 21 Nh3 Ng3t 22 Ke1 Rf1#

Round 4 - Challenger 1 e4 e5 2 d4 e=d4 3 Q=d4 Nc6 4 Tryom -Qd5 Nf6 5 Qf5 d5 6 Qf3 dme4 7 Qe3 Bb4t 8 Nc3 O-O 9 Bc4 Nd4 10 Bb3 Bc5 11 Qg3 Bd6 12 Qg5 N*b3 13 a*b3 Re8 14 Be3 Re5 15 Q*e5 B*e5 16 R*a7 R*a7 17 Bxa7 Qd6 18 h4 Bg4 19 Re3 Bxc3t 20 Bd2 Qxd2t 21 Kf1 Oe1# 0-1

Boris 2.5 -- Mychess B 1 d4 Nf6 2 c4 g6 3 Nc3 Bg7 4 Nf3 O-O 5 e4 Nc6 6 d5 Nb4 7 a3 Na6 8 Be3 Ng4 9 Qc1 e6 10 Bg5 f6 11 Be3 f5 12 Bg5 Qe8 13 h3 fxe4 14 QC1 e6 10 0g3 fb 11 0e3 f5 12 0g3 Qe6 13 f5 18e1 14 hrg4 exf3 15 Qe3 exd5 16 cxd5 Bd4 17 Qxe8 Rxe8t 18 Be3 Bxe3 19 fxe3 Rxe3t 20 Kf2 fxg2 21 Bxg2 Re8 22 Rae1 Rxe1 23 Rxe1 Kf7 24 Rh1 Kg7 25 Re1 h6 26 Re7t Kf6 27 Rh7 Kg5 28 Kg3 Kf6 29 Ne4t Ke5 30 Rxh6 Kxd5 31 Rxg6 Kd4 32 Nc3 c6 33 Ne2t Ke5 34 Rg5t Kd6 35 Nd4 c5 36 Nb3 c4 37 Nd2 c3 38 Nc4t Ke6 39 Rg6t Ke7 40 b×c3 Rb8 41 Ne3 b5 42 Bd5 Nc5 43 Nf5† Kd8 44 Nd6 Ke7 45 Nf5t Kd8 46 Kf3 Na4 47 c4 bxc4 48 Bxc4 Rb1 49 Rg8t Kc7 50 Re8 d6 51 Re7t Bd7 52 Re3 Bxf5 53 g×f5 Rc1 54 f6 Nb6 55 Re7t Kc6 56 Bf7 Rf1t 57 Ke4 d5t 58 Kd4 R×f6 59 Ke5 Rd6 60 Be8t Nd7t 61 R×d7 R×d7 62 Ke6 d4 63 B×d7t Kc5 64 Ke5 d3 65 Ke4 d2 66 Bg4 Kc4 67 Ke3 Kb3 14-14

- Boris X 1 e4 c6 2 Bc4 d5 3 e×d5 c×d5 4 Bb5t Nc6 5 Nf3 Nf6 6 O-O Bg4 7 d4 Qb6 8 Nc3 O-O-O 9 Be3 Bxf3 10 gxf3 e6 11 Re1 Bd6 12 Qd3 Qc7 13 h3 Bh2t 14 Kh1 Nb4 15 Qd2 Bd6 16 b3 Rhg8 17 Bd3 N×d3 18 Qxd3 Qc6 19 Nb5 Bb8 20 c4 dxc4 21 Qxc4 Qxc4 22 bxc4 Rd7 23 Rab1 Rgd8 24 d5 exd5 25 cxd5 b6 26 Rbc1+ Kb7 27 Nd4 R×d5 28 Red1 Rh5 29 Kg2 Nd5 30 a4 Rd6 31 Nb5 Rg61 32 Kf1 a6 33 Nd4 R×h3 34 Ke2 Rh5 35 Bd2 N65 Kg07 32 K11 80 33 NG4 KK113 34 Ke2 K113 35 BUL Nf4t 36 Bxf4 Bxf4 37 Rc2 Ra5 38 Rc4 Rd5 39 Rh1 h6 40 Rh3 Bg5 41 Nf5 Re6t 42 Kf1 Bf6 43 Ne3 Rd4 44 Kg2 Rxc4 45 Nxc4 Kc6 46 Kg3 Kc5 47 Ne3 Kb4 48 Nd5t Kxa4 49 Kf4 Bd4 50 Rh5 Re2 51 Rf5 f6 52 Rh5 Kb3 53 Rh3 Kc4 54 Ne3t Kd3 55 Nf5 g5t 56 Kg4 Rxf2 57 Rxh6 Rg2t 58 Kh3 Rg1 59 Kh2 Bc5 60 Rxf6 Rf1 0-1

- Sfinks 1 e4 c6 2 Nf3 d5 3 e×d5 c×d5 4 d4 e6 5 Nc3 Nc6 6 Bd3 Bb4 7 Bf4 Nf6 8 O-O O-O 9 Re1 Bxc3 10 bxc3 Kh8 11 Rb1 Qa5 12 Bd6 Rd8 13 Ne5 Kg8 14 N×c6 b×c6 15 Be7 Re8 16 B×f6 g×f6 17 Qf3 Kg7 18 Qg4† Kf8 19 Qf4 Kg7 20 Qg4† Kh8 21 Qf4 Kg7 22 Qg4+ 44-44

- Mychess A 1 g3 Nf6 2 f3 e5 3 Na3 Nc6 4 Bh3 Nd4 5 c3 Nc6 6 Nb5 a6 7 Na3 Bc5 8 Qa4 O-O 0-1