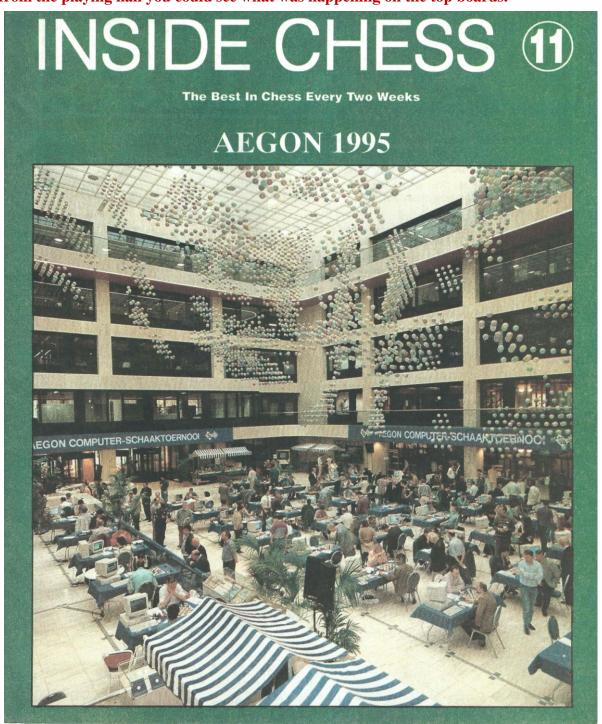
Now that I see the picture below again after many years, I realize once more how important this computer chess tournament was in those days. This event took place at a time when chess programs were getting stronger and stronger and human chess players still had chances to win. The atmosphere as you walked among all those tables was unparalleled. You could look over the shoulders of the participants! On the left of the photo you can see a separate area from the rest of the playing hall where the strongest participants sat together. As a spectator you were not allowed to walk around there, but from the playing hall you could see what was happening on the top boards.



GM Yasser Seirawan: The Computers Lose Some Battles, but Win the War (10th Aegon Tournament) (Source: Inside Chess magazine – June 1995) (photo copyright © by www.schaakcomputers.nl) (600 dpi)

# The Computers Lose Some Battles, but Win the War

#### **GM Yasser Seirawan**

he 10th AEGON tournament was played April 26 through May 3 in the Hague, Netherlands. AEGON is the largest Dutch insurance company and has taken a shine to sponsoring computer-versus-human events. This one has a unique team swiss format which features two large groups (one human, one not) playing against one another.

In the early going, the GMs and other strong players fared rather well, while the computers exacted a nasty revenge on the lower boards. The computers won four of the six rounds and overall scored a 155-122 victory.

#### No 2600 Elo-Yet!

The opening ceremony was a feisty one. IM Hans Bohm has a standing series of wagers with Professor Jaap van der Herik and one was due on January 1 of this year. Hans had bet that no computer would have a 2600 ELO by that date. Tim Krabbe was the arbiter. Professor Van der Herik opened with a fiery speech. He was happy with the computers' success in 1994. In Rapid chess, the machines had defeated such notable GMs as Predrag Nikolic and Garry Kasparov. While in blitz, one of the Mephisto brood had a phenomenal result, beating nearly everyone at a PCA event in Munich. Only Kasparov managed to beat it in a special playoff. The professor explained that some of these results gave the computers Tournament Performance Ratings in the 2900's, never mind the 2600's! He was happy to win his bet!

Bet arbiter Tim Krabbe noted the computers' successes, but referred to the language of the wager. No computer had a 2600 ELO and so Hans pocketed 500 Dutch Guilders. Tim also provided an interesting sidebar about an Internet subscriber who claims to have

beaten Chess Genius game after game in blitz chess. The player in question readily admits to being a 1800-player, the crucial point being that he gives the program odds of a Rook! His technique is simple. He plays a hedgehog position as quickly as possible, keeps the position closed and moves back and forth. As the computer's clock gets lower, it starts to blunder! Human ingenuity wins again!

#### **New Tool**

Hans offered a new measuring tool to gauge the computers' strength. He felt that testing the computer under tournament conditions was unfair to the humans. Time trouble, memory lapses, a bad night's sleep and so on. How about having a computer in the lecture rooms at the FIDE matches? Once a player moves, the computer would be asked what it would have done. When the computer guesses "wrong" the GMs could decide who had made the better move in the given circumstances. An interesting idea indeed.

This was the first time that I had ever played against computers in a serious competition. I didn't know what to expect and didn't make any special preparations. In the event, I took Tim Krabbe's speech to heart and played closed positional chess. It worked for a five win and one loss result. The loss resulted from declining a draw offer in a perpetual check sequence and walking into mate. That one still hurts.

The one thing that I found frightening about this tournament was the new speeds of the computers. How would this effect their play? Quite positively, thank you very much! For only the second time in the AEGON series, the computers won overall and by an overwhelming margin too! As a naive participant, I chalked their success up to the improved computer chip speeds. The steady progression from 286 to 386

to 486 and now to the Pentium processers suggests a inexorable path to human defeat. What will happen next year when we face the 600 series?

The following was the crucial game of the tournament. HIARCS had a perfect score of five-zip, having beaten your author in the fifth round. It was up to John van der Wiel to save the honor of the humans.

French Winawer C16

HIARCS GM John van der Wiel

AEGON (6) 1995

#### 1.e4 e6

The GMs had noted that the computers don't play very well against the French. Closed maneuvering games are not their *metier*.

#### 2.d4 d5 3.40c3 &b4 4.e5 b6

In the previous round, I had played 4... dd against HIARCS and earned an easy advantage.

#### 5.幽g4 皇f8

At this moment, both computer and human are very happy.

#### 6.单g5 幽d7 7.h4?

This looks to be "book" and seems a rather silly move. Computers are rather poor with pawn play, but it is unlikely the machine would have played this without being chained to its opening library. 7 \$ 55 c6!? 8 \$ 4! was better, with a plus for White.

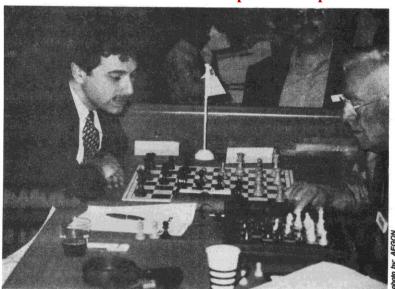
## 7...h6! 8.\(\hat{2}\)f4 \(\hat{2}\)a6 9.\(\hat{2}\)xa6 \(\infty\)xa6 \(10.\infty\)f3 \(\infty\)e7

Black also has an easy game after 10... 14 b4! 11. 15 c1 c5, putting pressure on White's center. John has another idea in mind: castling on opposite sides of the board. He therefore leaves his queenside alone.

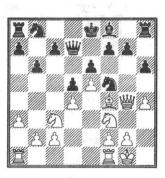
11.0-0 @f5 12.a3 @b8!

GM Yasser Seirawan: The Computers Lose Some Battles, but Win the War. (10th Aegon Tournament.)

## Pictured is Yasser Seirawan. But who is the operator sitting across from him? It is none other than computer chess pioneer Jan Louwman himself.



Your author in combat against the tin monster



A nearly ideal position against the computer. In its judgement, it has an overwhelming position and therefore wants to do something with its "advantage." For his part, Black is quite happy. The desired trade of Bishops has been accomplished and he can look forward to developing his game.

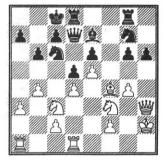
#### 13.h5?

Helping Black achieve his kingside break. Best was 13. 2 d1 and 2 d1-e3, trying to eliminate the f5-beast.

#### 13... 2c6 14. 2fd1? 2g8 15. 2h2?

Now the computer begins to look silly. It believes all its pieces are well placed and thus "improves" its King position.

15...O-O-O 16.b4 ≜e7 17.\\|h3?! g5! 18.\hxg6 fxg6 19.g4 \(\big)g7



Now begins the nightmare for all computer programmers. How to convince the computer *not* to take the h6-pawn? The computer's event horizon can't judge that the h6-pawn is poisonous. The computer "felt" it had the advantage all along and is now collecting its just desserts. In defense of the computer, it has to be admitted that after ...h6-h5, Black has a terrific game.

#### 20. axh6?

A human player would shudder at the thought of taking such a pawn, intuitively realizing that to do so would leave him tied up and exposed to attack. 20... \$\square\$h\$8 21.b5?

Positional suicide. On the c6-square, the Knight attacks the d4-pawn. How much more dangerous will the Knight be on the c4-square?

21... ②a5 22. □h1 □h7! 23. ❤g2 □dh8

24.g5 @f5 25.a4 @c4

Now it's game over. Black is winning on both wings.

26. 22 \(\text{\$\text{\$\sigma}\$} \) 27. \(\text{\$\sigma}\$\) 28. \(\text{\$\text{\$\sigma}\$} \) 28. \(\text{\$\text{\$\sigma}\$} \) 30. \(\text{\$\text{\$\text{\$\sigma}\$}} \) 34. \(\text{\$\text{\$\text{\$\sigma}\$}} \) 34. \(\text{\$\text{\$\text{\$\text{\$\text{\$\sigma}\$}}} \) 34. \(\text{\$\end{\$\text{\$\text{\$\text{\$\text{\$\ext{\$\ext{\$\text{\$\

There is nothing to do. After 33. © e2 © ce3+wins. The text is the computer version of a spike check.

33...bxa5 34.≅xa5 ②xa5 35.₩xa5 ❖b8 0-1

A wonderful game for the humans. Without it, HIARCS would've won the competition. At the closing ceremony John explained the secret of his success. "The computers aren't playing chess. They are playing a game that only looks like chess." As an inveterate gamesman (bridge, backgammon, computer games) Van der Wiel easily adjusted his style. He told his fellow humans the secret was to stop thinking in terms of traps, surprises and sacrifices. He was happy the tournament was over so that he could revert back to normal form and play his next game for mate.

Still smarting from my fifth round loss, I was paired with Ed Schroeder's program REBEL. A few years back when Ed was working for TASC, his program won the world micro-computer championship. I sat opposite Ed, who turned out to be a charming and amiable opponent.

Semi-Slav Anti-Meran D45 GM Yasser Seirawan REBEL

AEGON (6) 1995

1.d4 d5 2.c4 c6 3.e3 ②f6 4.②c3 e6 5.②f3 ②bd7 6.b3

Not exactly a sterling novelty, but I was trying to escape the computer's feared library. While the text isn't bad, the only thing to be said in its favor is that it appears to be a promising way of tricking the computer into a faulty strategical plan.

6...\$b4 7.\$d2 O-O 8.\$e2 b6 9.O-O c5?!

9...♣b?? is bad: 10.⊘xd5! ⊘xd5 11.cxd5 ≜xd2 12.dxc6, winning a pawn. Best was 9...♣d6, when White has a small plus, but don't ask me where it is!

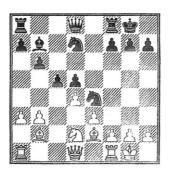
10.cxd5 exd5 11.a3 🕸 xc3

Too bad. I was really hoping for

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11... 2a5? 12.b4 cxb4 13. 2b5 bxa3 14. 2xa5 bxa5, saddling the computer with the Polish pawn structure.

12. 2xc3 De4 13. 2b2 2b7 14. Dd2



I was happy around these parts: I had a good game with the two B's working for me. Then the computer played:

#### 14...f5

And I wasn't so happy. I don't think that a human would voluntarily weaken the King position like this, but it's actually an annoying move. After the more "reasonable" 14...\(\infty\)df6 15.\(\infty\)xe4! \(\infty\)xe4 16.\(\infty\)c1 White has a nice plus. I was even considering 16...\(\infty\)c8 17.\(\infty\)g4, trying to provoke ...\(\infty\)f5.

It occurred to me now that I didn't want to play f2-f3 and weaken my e3-pawn. Capturing by 2 d2xe4, ...f5xe4 could become unclear, as Black has a mass of pawns and space on the kingside. I knew I had to be better, but doubts were starting to creep in.

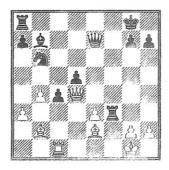
## 15萬c1 豐e7 16.②xe4 fxe4 17.dxc5 bxc5 18.b4!

The only way to play for an advantage. Black needs only to play ...a7-a5 and he isn't worse by any means, because it is very difficult for White to attack the d5-pawn. Of course, I triple-checked my analysis to make sure I wasn't sacrificing anything that I couldn't win back, pronto.

#### 18...c4! 19.豐d4 ②b6?

It was better to play 19... 166, blocking the long diagonal and preparing ... a7-a5, with a slightly better game for White.

20.f4! exf3 21.Exf3 Exf3



#### 22.gxf3?!

Trying to be a genius. Simplest was 22 \(\hat{\hat{L}}\) xf3 with an advantage, but I felt that the computer would misplay its position by overlooking my potential attack down the g-file.

#### 22.. 道c8 23. 當f2 基c6 24 基g1 基c7?

I was right! I thought 24.. Ag6 was forced.

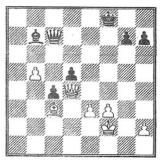
#### 25. ad1?

Now that the computer was going down the wrong defensive road, I was waiting for a further mistake and so took the time to reposition my Bishop. Best was 25.h4! ②c8 26.2c3! ②d6 27. # f4 and White will make further inroads on the dark squares by I g1-g5-e5. For some reason I wanted to stop "active" counterplay by ... ②b6-a4? Why? Search me.

#### 25... Dc8 26. 2c2 Dd6 27.a4?

No sooner had I released the piece, than I knew that I had done something wrong. While the computer was thinking, I thought 27... 20e4+! was beginning to look a lot like a perpetual check. I began cursing myself for not playing 27. 22g4. I hadn't wanted to accept the computer's sacrifice by playing 27. 22g4, even though I would've probably taken the pawn against a human!

Afterwards, Ed Schroeder told me that the computer was getting ready to play 27... 4e4+, but became worried that 28. e2 led to an advantage for me.



The computer has fallen into an extremely difficult position—for a human. In certain positions, the computer can defend more cold-bloodedly and this is such a position. I concentrated harder, knowing my task wasn't going to be eased by a mistake.

39.f4 豐e7 40.\$e2 豐d7 41.\$cd2 \$cg8 42.豐e5 \$c8 43.b6 h6! 44.\$cd4 \$ch7! 45.\$c3 \$c5 45.b6 h6! 44.\$cd4 \$c5 45.\$c3 \$c5 45.46 \$c5 50.\$c4! 豐xe6 \$c5 1.fxe6 \$c5 65.\$c6 \$c5 65.\$c4 \$c5 65.\$c5 4c4 \$c5 65.\$c5 \$c

A tough fight. Another computer strength is that, faced with the most depressing defensive task, it still puts up stiff resistance.

Fortunately all my time at the AE-GON event wasn't spent just playing chess. I got the chance to speak with Dr. Hans Berliner (HITECH), Marty Hirsch (M-CHESS PRO) and Wil Sparreboom of The Advanced Software Company. Amazingly, their prognostications of the future were astonishingly similar. All were very strong in their belief that the computer processing speeds help the strength of the programs, but that calculating speed alone was insufficient for a computer program to be of Grandmaster skill. In their view, as the processor speeds increase, the software has to be altered to adjust to the new chips' abilities. In other words, the software has to be rewritten to take specific advantage of the new chip.

In Dr. Berliner's view, this new software would take a dedicated professional a lifetime's effort. Without this dedication, the computer cannot become World Champion. Wil Sparreboom echo-

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ed the sentiment. Wil went so far as to suggest that sometimes speed can be a negative! The computer hits the wall of the Law of Diminishing Returns and makes the wrong move because its event horizon was extended by a half-ply.

Marty Hirsch said that the computers were quite handicapped by their opening play! What I thought was a real computer strength was, in Marty's view, a handicap. The computer is bound by its opening book. But who creates the opening book? A weak move in three different crucial opening sub-variations may lead the computer astray and cause a sudden defeat. The programmer must then immediately go into the library and correct the opening, but what if the correction is defective too?

I found myself being cheered by their woes! Wil explained to me that one of TASC's programs had been improved to an amazing degree. In his company's testing labs the program had consistently beaten its computer rivals due to a refined positional approach. But this refined approach didn't work against humans, because they were happy to draw! As a result Wil's strongest program wasn't in the top five, when he felt that it should have been.

This is another programmers' bane. An improvement in one part of the program's skill level may unravel a thread somewhere else, causing other parts to



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1-800-662-4377 Our 6<sup>th</sup> Year! play much worse. Such adjustments need exhaustive testing to be sure more good than harm is being done.

Thus far I've been deliberately unfair to the computers. While they won the tournament overall, I've shown two of their losses. Now it's time to get to the depressing news. They can play. Excellent calculation, combined with a fine tactical eye, means they can slug with the best Grandmasters in the world! Don't believe me? Then open your eyes to this one as QUEST sacrifices three pieces and goes on a combinational rampage.

An interesting sidebar is that in the previous game I played "like a computer" to out-machine the machine. In this game QUEST "plays like a human", and a brilliant one at that, to best the good Doctor.

Caro-Kann B15

QUEST GM John Nunn

AEGON (4) 1995

1.e4 g6 2.d4 \( \hat{\textit{g}} g7 3.\( \hat{\textit{Q}} \)c3 c6 4.\( \hat{\textit{Q}} f3 \) d5 5.h3 \( \hat{\textit{Q}} \)h6 6.\( \hat{\textit{q}} f4 f6 7.\( \begin{array}{c} \hat{\textit{Q}} f2 \) \( \hat{\textit{Q}} f7 \)

After the game, Dr. Nunn complained that he had used the wrong strategy, but I don't think so. This seems like a nice position from which to try and bamboozle the computer.

#### 8.O-O-O!? O-O 9.4e3

Snicker, snicker. The computer is already having problems finding a plan. 9...a6?



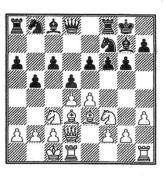
### June 16-18

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See *Chess Life* or *Inside Chess* #7-10 for further details, or call Jerry Weikel (702) 747-1405 Impressed by his good fortune, Black also wastes a tempo. After 9...e6! followed by ...b7-b5 and occupation of the c4-square, Black's queenside attack would arrive first.

#### 10. ge2? b5 11. gd3 e6?

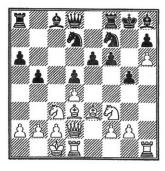
Failing to get the show on the road. After 11...b4! 12. 2a4 (12. 2e2 a5) a5 Black's queenside initiative is stronger. Another good idea was 11... 2e6!? followed by ... b8-d7-b6 with the initiative. The text loses a tempo.



#### 12.h4!

A very surprising and untypical computer move. The text hits the nail right on the head. White desperately needs to weaken Black's kingside, especially the g6-pawn. A more typical, lame computer move would be 12 he1? accomplishing nothing.

12... ②d7 13.h5! g5 14.h6! 魚h8 15.exd5 cxd5



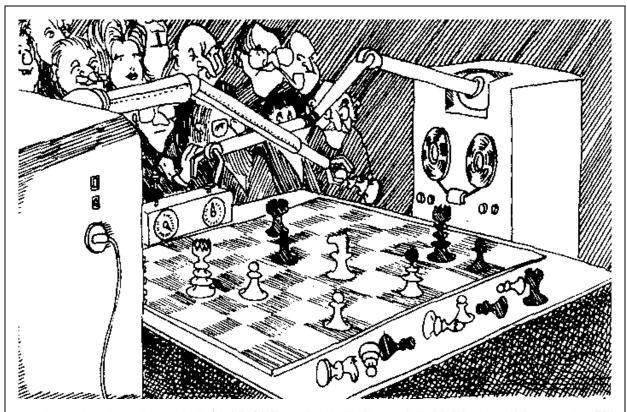
#### 16. 2 xd5!

White's play is bold and right on the money. After 16...exd5 17皇xh7+ 全xh7 18.豐d3+ f5 19. 豐xf5+ (White's current point is revealed. The f5-pawn is no longer protected.) 19...童g8 20.豐g6+ and wins.

16...≜b7 17.ᡚc3 ᡚd6

While the "Doc" isn't happy, it

GM Yasser Seirawan: The Computers Lose Some Battles, but Win the War. (10th Aegon Tournament.)



seems that he should be able to wriggle out of his problems.

#### 18.\mathbb{\ma

Ooops! An extremely powerful move that shatters Black's hopes of resistance. White plans a hammer-like sacrifice against the g5-pawn.

18...單f7 19.单xg5! 单xf3 20.gxf3 fxg5 21罩xg5+全f8 22罩dg1 包f6

Nunn didn't like the looks of 22...\$\text{\$\text{\$\sigma}\$} e7 23.\$\text{\$\text{\$\sigma}\$} d5 + exd5 24.\$\text{\$\text{\$\sigma}\$} e3 + \$\text{\$\text{\$\sigma}\$} e5 25.dxe5, when White's pawns have their marching orders.

23.0e4 0dxe4 24.fxe4 \wxd4 25.e5 \www.e7 26.c3 \www.e6 27.exf6+ \wxd2xf6 28.\widehag8

The computer now finishes efficiently. White has material, better pieces and the safer King.

I have never seen a computer execute such a fine attack as QUEST did beginning with its twelfth move. A most impressive game. As for Frans Morsch, programmer for FRITZ programs, he was in heaven. QUEST and his other new program, CHESSICA, scored very well also.

## Tenth AEGON Computer Chess Tournament 1995

(4.0 or better out of 6, computer programs in all capital letters)

Name	rating	TPR	Score	10.0			
1. John van der Wiel	2570	2702	5.5	14. QUEST		2489	4.0
2. HIARCS		2631	5.0	15. Dr. John Nunn	2630	2413	4.0
3. Gert Ligterink	2440	2578	5.0	16. David Bronstein	2435	2362	4.0
4. CHESS GENIUS 2		2662	5.0	17. FRITZ3		2378	4.0
5. Yasser Seirawan	2600	2554	5.0	18. Sofia Polgar	2500	2436	4.0
6. M-CHESS PRO		2652	5.0	19. REBEL		2403	4.0
7. HITECH		2600	5.0	20. ZARKOV		2336	4.0
B. MEPHISTO PC-bd. A		2473	5.0	21. VIRTUA CHESS		2305	4.0
9. W-CHESS		2424	5.0	22. CHESSICA		2367	4.0
10. SOCRATES		2487	5.0	23. ZUGZWANG		2257	4.0
11. Roberto Cifuentes	2535		4.5	24. NIGHTMARE N		2285	4.0
12. Hans Ree	2435		4.5	25. KALLISTO		2284	4.0
2,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	2286		4.0	26. ARTHUR		2341	4.0
13. Nico Kuijf	2200	2443	4.0	27. JUNIOR		2179	4.0
				27.70111011		21//	7.0

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