

Instructive Computer Games of Chess:

LCZero v0.21.1-nT40.T6.532 – Bluefish Dev

April 28, 2019

TCEC S15 Bonus: Bluefish vs Leela Jhorthos, Game 2

E05 CATALAN, OPEN, CLASSICAL LINE

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August 1, 2019

This game is a remarkable example of taking and keeping strategic advantage. After the opening phase, it feels that white dictated the direction and black reacted, with black never having a say for where the game would be heading to.

Following concepts exemplified:

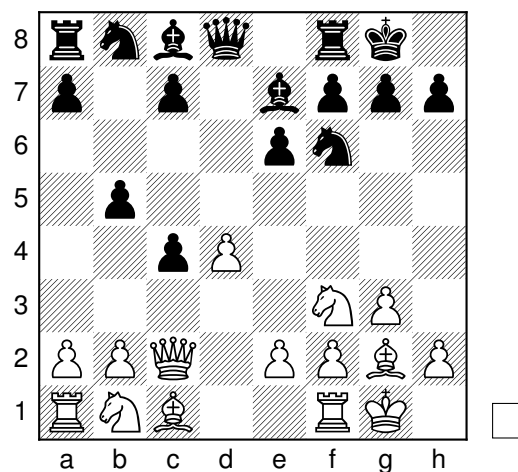
1. Restricting opponent pieces for strategic advantage
2. Shifting focus from one side of the board to another, to take advantage of better piece mobility

The game started from the regular starting position.

1	d4	♘f6
2	c4	e6
3	g3	

The Catalan opening seems to be a favoured Queen's Gambit opening for the current NN engines.

3	...	d5
4	♗g2	♗e7
5	♘f3	O-O
6	O-O	dxc4
7	♖c2	b5?!



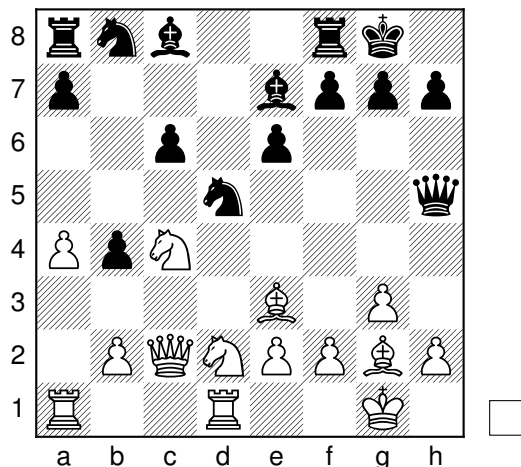
Typical play here is 7... a6, instead. Trying to hold on to c4 allows white to get a significant amount for activity for the pawn.

8	a4	b4
9	♗fd2	

While 9. ♗bd2 looks perhaps a bit more natural and is slightly more popular in the Lichess GM database, 9. ♗fd2 has better statistics for white. The merit of the move in the game is that it unblocks the bishop's vision, adding pressure towards the a8 square.

Black has here three options to protect the rook. 9... ♖d5 gives up the pawn back and allows black to develop the queenside. 9... b3 10. ♙xc4 ♗a6 11. ♙xb3 and either 11... c6 and black will get one pawn back, or 11... ♖d5 for trading one pawn for better development. A third and the most popular option was played in the game, postponing the resolution of the queenside development.

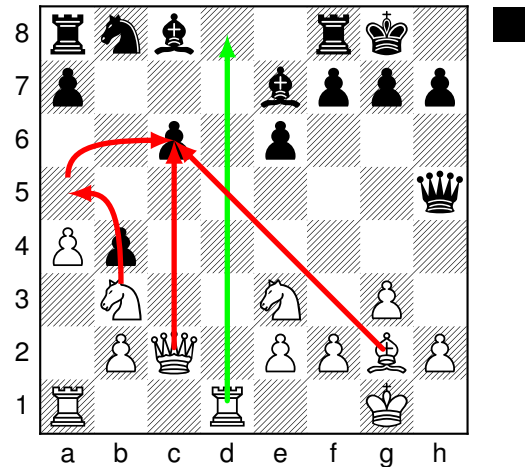
9	...	c6
10	♖xc4	♙xd4
11	♗d1	♙c5
12	♗e3	♙h5
13	♖bd2	♖d5!?N



13... ♖g4 was the most popular move. This move has the merit over the played move that it effectively forces 14. ♖f3 or 14. ♖f1 in order to stop the mate threat, unless white decides to weaken the king-side pawn structure by h3 or h4. This deflects the knight from the d2 square.

13... ♖d5 would make more sense if the purpose was to block the g2-bishop eyeing towards the black's queen-side corner. However, the intention was to trade the knight with the bishop.

14	♖b3	♖xe3?!
15	♖xe3	

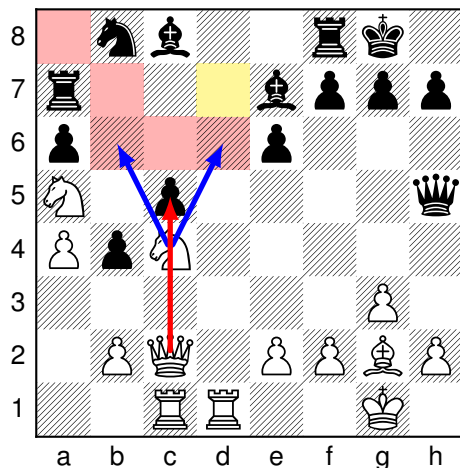


Now the small subtlety of playing 13... ♖d5 instead of 13... ♖g5 becomes obvious: black is going to have some serious questions to answer on developing the queen side, as the c6 pawn is starting to become a liability. Further, white has gained the d-file, thwarting development ideas such as ♗d7 with ♖a6 for now. So, black goes with another typical development idea in Catalan: push the a-pawn, play ♖a7, and then untangle with moves such as ♗g7 and c5.

15	...	a6
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Now move ♖a7 is enabled. The move 15... a6 over the move 15... a5 has the following two benefits: (1) The a-pawn will not become a target for a later ♖xa5, and (2) the pawn controls the b5 square after c5.

16	♖c4	♖a7
17	♖ac1	c5
18	♖ba5	



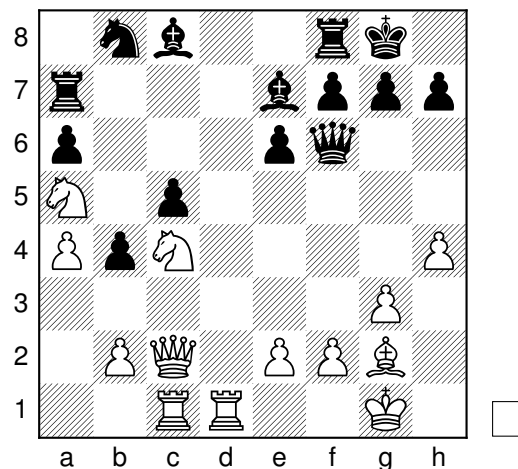
The b4-pawn is now finally protected, but black's problems are still far from over. The black queenside is a minefield due to white's control, and the d7-square is a bottleneck for black development. Further, should the e7-bishop move, white is ready to jump the c4-knight exposing the threat to take the c5-pawn.

Therefore, it is no wonder that it is already getting difficult to find any useful moves for black:

- (a) 18... ♖c7 does not help development, since the c6 square is already attacked twice by white. Similarly, a natural move 18... ♗g7 cannot be played.
- (b) 18... ♖g6 only asks white to make another developing move such as 19. ♖d3/e4/♗e4.
- (c) 18... ♖d1 allows white to practically force 19. ♖xd8+ ♗xd8 20. ♖d1 ♗xa5 21. ♗xa5 ♖g5 22. ♖d6 ♖c7 23. ♖d1 ♗d7 24. ♖c6 ♖xc6 25. ♗xc6. The 26... c4 move here would be met with 27. ♖d6 threatening to either win a piece by ♗e7+ or a pawn by ♖xb4 while still keeping black's queenside development cumbersome.
- (d) 18... ♗d7 with a possible continuation 19. b3 ♖c7 20. ♖d3 ♖d8 21. ♖e3 ♗e8 22. ♖f4 ♖cd7 23. ♖xd7 ♗xd7 24. e3 threatening ♖c7, for instance.

Black simply does not seem to be able to find any useful counterplay, so black decided to play a semi-waiting queen move, reinforcing the d8 square.

18 ... ♖g5
19 h4! ♖f6

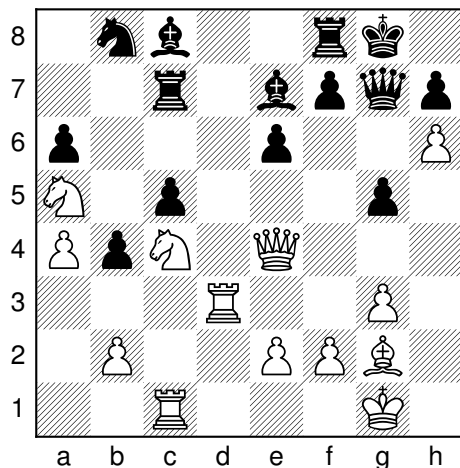


As black is unable to make progress, white is now starting to improve her position. The move h4 not only restricts the queen, but it also signals white's intention to shift the play in the king-side. Often such ideas are useful when one side has better access to squares.

20 ♖e4 ♖c7
21 ♖d3 g5

Black was soon forced to do something. If black would continue to play waiting moves, then white would soon break black's position. An example line 21... ♗h8 22 b3 ♗g8 23 ♖cd1 ♗h8 24 ♖f3 ♖h6 25 ♖e5 with unparriable threats. For example: 25... ♖d7 26. ♖fd3 ♖xd3 27. ♖xd3 ♖c1+ 28. ♗f1 ♗d7 29. ♖c7 ♗f6 30. ♗c6 a5 31. ♗a7 ♗a6 32. ♖xd7 with no hope for black.

22 h5! ♖g7
23 h6!!

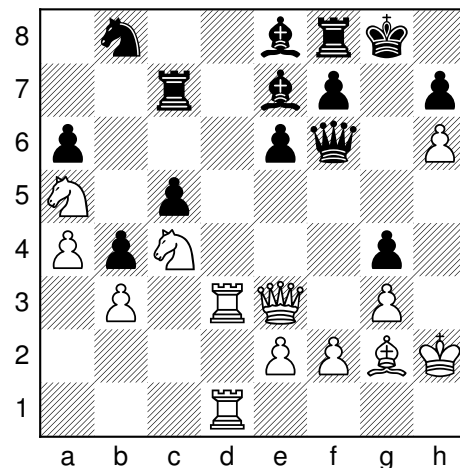


With the h-pawn moves, white continues to strangle black's position, and begins to threaten a king-side attack. Note that the h6-pawn cannot be taken as black queen must be ready to stop ♖e5, as that would win a piece due to the skewer (23... ♖×h6?? 24. ♖e5 ♜d7 25. ♖×b8).

23 ... ♜f6
24 b3

Solidifying move by white and preventing potential tactics by ... b3. Note that often with such moves, white needs to pay attention not to trap pieces, as b3 was the natural escape square for the a5-knight. However, here white could simply move the c4-knight somewhere to provide another escape square, should the need arise.

24 ... ♜d7
25 ♖e3 g4
26 ♜cd1 ♜e8
27 ♖h2



The king move is a subtle move in this complex position. Black is now almost in a Zugswang where it would be preferable not to make a move at all. The king move is also preparatory to avoid tempo loss by ♖h8/♜g8+ in some variations after both the g-pawns have moved to other files, as well as to prepare Rh1 to protect the h6-pawn with possible rook lift ideas. Finally, ♖h2 prepares ♖g3 to attack the g4-pawn should the opportunity arise. Let us review some of black's choices:

- (a) 27... ♖f5 would essentially transpose to the game continuation after 28. ♖f4
- (b) 27... ♖h8 28. ♜e5 ♖f5 29. ♖f4 ♖×f4 30. g×f4 and white maintains the advantage with a continuation such as 30... f6 31. ♜ec4 ♜g6 32. ♜3d2 ♜g8 33. ♖g3 ♜f8 34. e3 ♜×h6 35. ♜d8 ♜e7 36. ♜b7 ♜×d8 37. ♜×d8+ ♜e8 38. ♜×e8+ ♜×e8 39. ♜×c5. Note that a move 29... ♖h5+ would not save the day, since 30. ♖g1 ♖f5 31. ♖×f5 e×f5 would just leave white with a better pawn structure with otherwise similar prospects.
- (c) 27... ♜d7 28. ♜e5 ♜e8 29. ♜×g4 and white simply wins a free pawn.
- (d) 27... ♜a7 followed by, e.g., 28. ♖e4 ♖×h6+ 29. ♖g1 ♜c7 30. ♖×g4+ ♖g5 31. ♖×g5+ ♜×g5 32. ♜d6 and white gets a strong

foothold into black's territory, renewing the question on the queen-side weaknesses. Also, the exchange sacrifice after 28. ♖d6 ♕×d6 29. ♖×d6 ♖d8 30. ♖×d8 ♗×d8 31. ♗e5 f6 32. ♗×e6+ looks interesting with good compensation, although probably not necessary to take a risk.

(e) 27... ♖a7 28. ♘b7 ♗g5 29. ♗×g5+ ♕×g5 30. ♘×c5 ♖c7 31. ♘e4 ♕×h6 32. ♘f6+ ♔g7 33. ♘×e8+ ♖×e8 34. ♖d4 does not look very attractive, either.

None of the options look particularly good, so black went with the straightforward queen exchange.

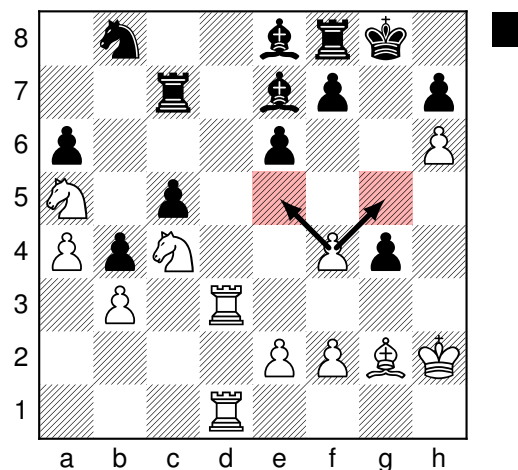
27 ... ♗g5
28 ♗f4!

White does not exchange the queen immediately, but forces better terms. The exchange on f4 square prevents black to get into the game, which 28 ♗×g5+ ♕×g5 29 ♖d6 ♕×h6 30 ♖b6 ♕d7 31 ♘e5 ♕g7 would have allowed.

28 ... ♗×f4

Black is forced to exchange the queens on white's terms. Note that curiously, black cannot make a waiting move 28... ♖c8 asking again to exchange the queens on the g5 square. The sequence after 29. ♗×g5 no longer works because the move ♕d7 is no longer possible because the rook had moved. Also, the intermediate queen check is no good either, because after 28... ♗h5+ 29 ♔g1 e5 30 ♘×e5 ♕g5 31 ♗f5 ♗×h6 32 ♘×g4 ♗g6 33 ♗e5 black simply drops a piece under white's threats.

29 g×f4



The pawn now controls two important squares: e5 provides an anchor point for a knight, and g5 protects indirectly the h6-pawn by preventing ♕g5.

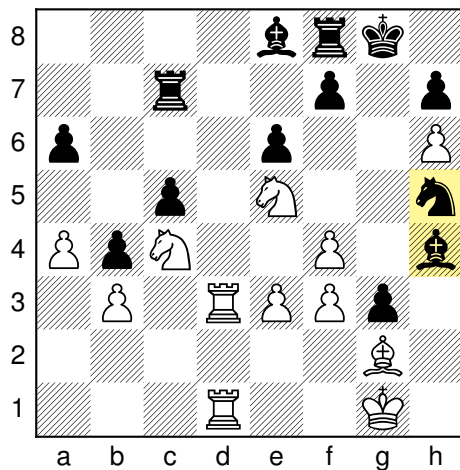
29 ... ♘d7
30 ♘c6 ♕h4
31 ♔g1

The threat was more important than the execution. Now its time to get back and protect the f2-pawn.

31 ... ♘f6
32 ♘6e5 ♘h5
33 e3 g3

Black is trying to create counterplay by trying to open the g-file and repositioning minor pieces in the h-file. However, white has a simple answer:

34 f3!



White simply makes black's own pawn a shield for the potential attack on the g-file, claiming that the pawn is rather weak. Now the black minor pieces on the h-file are irreparably mispositioned, and white can concentrate again on the queen-side. This time black has no answer to prevent white's penetration with the rooks.

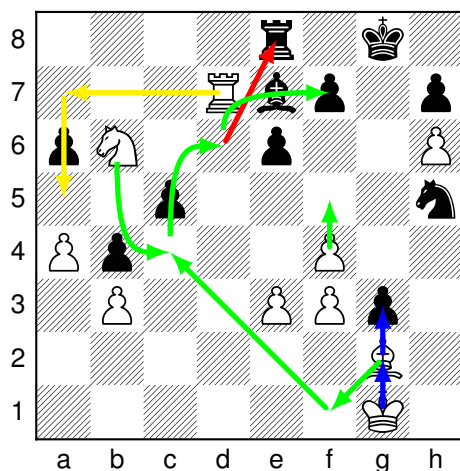
White has now multiple pieces for the plan to finish the game:

- (a) The rook can claim the a5-pawn, creating a passed pawn for white. The cost is some time. (Yellow arrows)
- (b) The king can march to g2 after the bishop has moved. Then, if the black knight moves, the g3 pawn can be taken. (Blue arrows)
- (c) The knight can move to d6 driving ♞e8 away, allowing the white rook to add additional pressure on f7. The bishop can reposition to c4, and the pawn can move to f5 adding even more pressure to the e6/f7 squares. This should allow white to create passed connected passers on e/f-files. (Green arrows)

Meanwhile, white's h6-pawn has now become weak and cannot be protected. Some precision is still required.

34	...	♙e7
35	♘d7!	♙xd7
36	♖xd7	♖fc8
37	♘b6!	♖xd7
38	♖xd7	♖e8

39	♙f1	♘f6
40	♖b7	♘d5
41	♘c4	♙f8
42	♙g2	♙xh6
43	♙xg3	

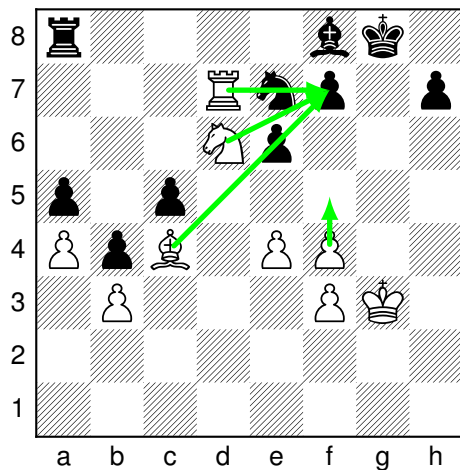


The king has now claimed the g3 pawn. Note that 40. ♖a7 would probably have been slightly more precise, although it does not matter.

43	...	♙f8
44	e4	♘e7
45	♘d6	♖a8
46	♖d7	

A waiting move to ask black to move again, and to prevent the black to move ... ♖d8 with tempo on the knight.

46	...	a5
47	♙c4	



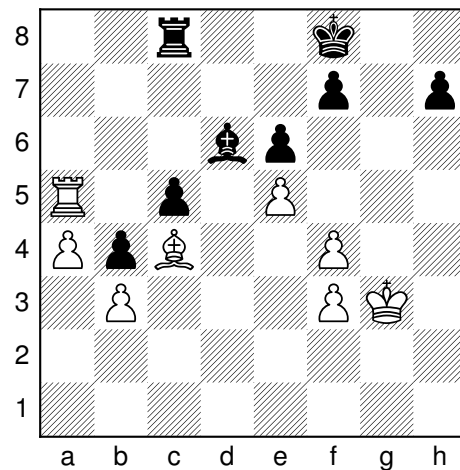
Now focusing on the f7 pawn with f4 pawn waiting to be moved.

47 ... ♖c8
48 ♖xc8 ♖xc8

The pawn move f5 is now temporarily discouraged due to tactics: 49 f5 ♖c7 50 ♖xc7 ♖d6+ 51 f4 ♖xc7. However, this would not be a disaster, since after 52. fxe6 fxe6 53. ♖xe6+ ♖g7 54. e5 the opposite-colored bishop ending would still be winning for white. White's connected passed pawns and white king's access to black's a-b-c pawns are strong enough to win the game. A bishop cannot usually stop attack on both sides of the board, since one side can deflect the bishop while the other side decides the game.

However, white did not go into such complications, and simply switched to taking the a5-pawn first and then resolving the pin by moving the e4-pawn before pushing the f-pawn.

49 ♖a7 ♖d6
50 ♖xa5 ♖f8
51 e5

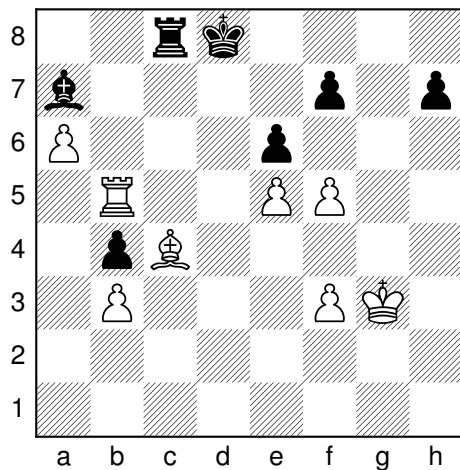


Black has no good squares for the bishop. ♖b8 would lose quickly to ♖a8 pinning, and then white pushing the a-pawn.

51...♖e7 would postpone the game by some moves with the following possible continuation: 52. ♖e7 52. ♖a7 ♖e8 53. ♖a6! ♖b8 54. ♖b5+ ♖f8 55. ♖c4. Note the move 53. ♖a6! . It drives the rook away from the c8-square, forcing ... ♖f8 after the check. The king cannot come to d8-square after ... ♖d8 since it's already occupied, or after ... ♖b8 since then white would play ♖b7+ with reveal check, winning the rook.

So, black sacrificed the c5-pawn in order to be able to block the a-pawn with a bishop.

51 ... ♖c7
52 ♖xc5 ♖e7
53 a5 ♖d8
54 a6 ♖b6
55 ♖b5 ♖a7
56 f5



White is now finally going after the f7-pawn. In opposite-color bishop endings, it is important to have two passed pawns with some distance to make it impossible for the bishop to stop both.

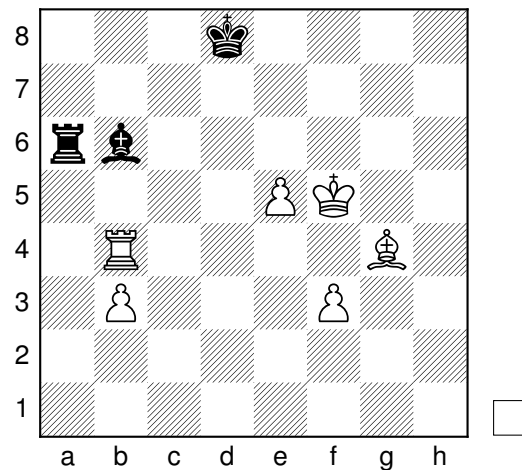
56 ... ♖b8
57 ♖a5

White could have also exchanged the rooks. The rest is simple technique.

57 ... e×f5
58 ♗×f7 ♗b6
59 ♖a2

The final pitfall was the natural-looking ♖b5. This would have blundered the win away to simple tactics: 59 ♖b5 ♗f2+ 60 ♗×f2 ♖×b5 with a disappointing draw. But now the rest is simple technique.

59 ... ♖c8
60 ♗f4 h5
61 ♗×f5 ♖c7
62 ♗×h5 ♖h7
63 ♗g4 ♖c7
64 ♖a4 ♖a7
65 ♖×b4 ♖×a6



A quick way to force mate would have been: 66 ♖a4 ♖a5 67 ♖×a5 ♗×a5 68 ♗e6 ♗e8 69 f4 ♗b4 70 f5 ♗f8 71 f6 ♗e1 72 ♗h5 ♗d2 73 ♗d5 ♗c3 74 b4 ♗×b4 75 e6 ♗a3 76 ♗c6 ♗e7 77 f×e7+ ♗×e7 78 ♗f7 ♗f6 79 ♗d6 ♗f5 80 e7 ♗e4 81 e8♖+ ♗d3 82 ♖e1 ♗c2 83 ♖e3 ♗b2 84 ♖d2+ ♗b1 85 ♗e6 ♗a1 86 ♖c1♯

However, in this game, Leela did not have the distance-to-zero (DTZ) tablebase files available and was on her own after reaching the winning position as per the win-draw-loss (WDL) files. As is characteristic to the current neural network (NN) engines, the endgame was not concluded quickly. The NN engines are simply interested in winning the game, not winning the game quickly.

66 f4 ♗c5 67 ♖c4 ♗f2 68 ♗e4 ♖g6 69 ♗f3 ♗h4 70 b4 ♖a6 71 ♗f5 ♗e1 72 b5 ♖a3+ 73 ♗g4 ♖g3+ 74 ♗h5 ♗a5 75 ♖a4 ♗b6 76 ♗g4 ♗e8 77 ♗g5 ♗d8+ 78 ♗f5 ♗b6 79 ♖a6 ♗f2 80 ♗h5+ ♗e7 81 ♖e6+ ♗d7 82 ♗e8+ ♗c7 83 ♖c6+ ♗b8 84 ♖c4 ♗a7 85 e6 ♖g7 86 ♗e5 ♗h4 87 f5 ♗e7 88 ♗g6 ♗f8 89 ♖c6 ♖b7 90 ♗f6 ♗e7+ 91 ♗g7 ♗a3+ 92 ♗h6 ♖×b5 93 f6 ♗f8+ 94 ♗h7 ♖b7+ 95 ♗f7 ♗a3 96 ♖c2 ♗b6 97 ♗g6 ♗b5 98 ♗e8+ ♗b6 99 ♗d7 ♖c7 100 ♖×c7 ♗×c7 101 ♗f7 ♗c5 102 e7 ♗×d7 103 e8♖+ ♗d6 104 ♗g8 ♗d5 105 ♖a8+ ♗d4 106 ♖c8 ♗b4 107 ♖d7+ ♗c3 108 ♖e8 ♗d4 109 ♖f7 ♗c3 110 ♖g7 ♗c5 111 ♖h8 ♗c4 112 ♖h7 ♗c3 113 ♖g7 ♗c4 114 ♖h8 ♗d4

115 ♖h7 ♗c5 116 ♖g6 ♗c3 117 ♖f7 ♗d6 118
 ♖e8 ♗c5 119 ♗g7 ♗d3 120 ♗g6 ♗d4 121 ♗f5
 ♗b4 122 f7 ♗c4 123 ♖g8 ♗b5 124 ♖c8 ♗c5
 125 ♖b8+ ♗c4 126 ♖a8 ♗b4 127 ♖a7 ♗d3
 128 ♖a6+ ♗d4 129 ♖a8 ♗c4 130 f8 ♗d3
 131 ♗g6 ♗d4 132 ♗f4 ♗e1 133 ♖a7+ ♗c4 134
 ♖b7 ♗c3 135 ♖c8+ ♗b3 136 ♖d7 ♗h8 137
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 ♖h7 ♗d2 141 ♖g6 ♗c5 142 ♖e8 ♗d4 143 ♖f7
 ♗c3 144 ♖g8 ♗e1 145 ♖h7 ♗d2 146 ♖g6 ♗d4
 147 ♖e8 ♗c5 148 ♖a8 ♗e1 149 ♖a7+ ♗b5
 150 ♖b7+ ♗c4 151 ♖c7+ ♗b5 152 ♖d7+ ♗b4
 153 ♖e7+ ♗b3 154 ♖xe1 ♗c4 155 ♖e8 ♗c5
 156 ♖d8 ♗c4 157 ♖f8 ♗b5 158 ♖c8 ♗b6 159
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 ♖b8 ♗c4 205 ♗d6 ♗d4 206 ♖e8 ♗c3 207 ♗c5
 ♗c2 208 ♗c4 ♗d2 209 ♖e7 ♗c1 210 ♗c3 ♗d1
 211 ♖e8 ♗c1 212 ♖e1#. White wins.