Specific comments:

1. Line 61: Accordingly it is 🡪 The PBLH
2. Line 62: Delete “and there is no such device as the PBL meter” since it is meaningless.
3. Line 65: What do “they” represent? This statement is not accurate. Please correct or delete it.
4. Line 68: moist🡪 most
5. Line 72: delete “however, only infrequently”.
6. Line 81: move “ in this paper” to the end of this sentence.
7. Line 92: change “get” to “gets”. Please correct the similar grammar errors in other places too.
8. Line 93: “, and it is used” 🡪 “ and can be used”
9. Line 96: “on” 🡪”to”
10. Lines 97, 100: no need “Besides” here.
11. Line 105: “it need” 🡪 “it needs”
12. Line 106: “correct” 🡪 “corrected” , “radius” 🡪 “radiuses or radi”. Again, please correct the similar grammar errors in other places.
13. Line 107: “the focus of study is to find out” -> “purpose of this study is to determine”
14. Lines 109-110: “then provide” –-> “and to provide” , delete “in northwest China”
15. Line 110: “By the limits of” –-> “Due to the limitation of”
16. Line 111: Try to use precise writing English not oral language. “we did the work using” 🡪 “we used”
17. Line 114: “radius in time” or “radius with time”?
18. Line 115: “Considering the above, the works are as follows:” 🡪 “In this study”
19. Line 116: “is less than” –“ less than”.
20. Line 120: delete “,”
21. Line 122: “PBLH and” 🡪 “PBLH with”
22. Lines 122-126: Please rewrite this sentence
23. Line 131: you are missing “meter” or … after “relative humidity”?
24. Line 135: resolution 🡪 resolutions
25. Lines 135-136: 🡪 “ The vertical spatial resolutions of the radiometer providing air 135 temperature profiles is 100 m below 1 km and 250 m above 1 km.
26. Line 136: is 🡪 are. Or the sentence can be rewritten as “The vertical resolutions of temperature profiles measured by the radiometer for the layers 1 km below and above are 100 m and 250 m, respectively.”
27. Line 140: “has joined”🡪 “is part of”
28. Line 142: add “,” before “and” , “to” 🡪 “for”
29. Line 148: “The” 🡪 “, where the”; delete “:”
30. Line 149: Please correct the formula (2)
31. Line 150: Delete “where” and add “,” before”Bm”
32. Line 153: Deed a space before and after “and”.
33. Lines 157-158: Change to two sentences. Change “; the” 🡪 “. The”
34. Line 162: TABLE or Table? Change “Selected days” 🡪 “The days selected”
35. Line 165: Add “LST” before (local standard time)
36. Line 169: It is better to use two decimal digits for all the coefficients.
37. Lines 172, 174: “Figure 1 b” 🡪 “Figure 1.b”, “Figure 1 c”🡪 “Figure 1.c”. Please correct the same issue in other places.
38. Line 177: Add “LST” after “18:00”. “T0”🡪 “T0”, “Ts”🡪 “Ts”.
39. Line 183: “FIGURE” 🡪 “Figure” ?
40. Lines 182-183: Please add labels for “x-axis” and “y-axis” in Figure 1.
41. Figure 1: Please add a space “PBL” and “(m)”, do the same corrections for all other places.
42. Lines 187-188: The sentence is not completed.
43. Lines 189-190: Please add “LST” after the time, and check the same issues in other places.
44. Line 200: Delete “,” after PBLH.
45. Lines 209-210: Separate into two sentences.
46. Line 215: “T0”🡪 “T0”, “Ts”🡪 “Ts”.
47. Line 224: “Thermal forcing is the driving force …” sounds ugly. Please rewrite the sentence.
48. Line 233: What is “surface variation”?
49. Tables 2-4: Please use two decimal digits.
50. Figure 3: Please move “(a)”, “(b)”, “(c)”, and “(d)” to the right place. Make sure they are consistent for all the figures.
51. Line 275: accompany 🡪 accompanies
52. Line 276: Please change “short wave radiation have” 🡪 “short wave radiation has”. Please check the similar errors in other places carefully and correct them.
53. Lines 280: “radiation” 🡪 “radiations”.
54. Line 282: “exit” 🡪 “exists”
55. Line 285: can’t understand “
56. Lines 286-289: Please rewrite the sentence. Be careful for using verb tense. “The upward long wave radiation change 0.5 to 1 hour later than the shortwave radiation” does not make sense. Please be careful to put several sentences together.
57. Line 299: “variable” 🡪 “variables”
58. Line 300: “latest” 🡪 “ at last”
59. Lines 304-305: change to two sentences.
60. Line 316: “the lag time is” 🡪 “the lag times are”
61. Lines 317-319: Rewrite the sentence with one by one.
62. Lines 326-328: Please rewrite with several simple sentences.
63. Lines 331-332: reach 🡪 reaches. Again, please check other places for avoiding middle school students’ grammar error.
64. Lines 332-333: 🡪 “the lag times are”
65. Lines 334-335: maintain 🡪 maintains, appear🡪 appears, keep🡪 keeps
66. Line 340: “exits” –> “exists”
67. Lines 344: “ the lag times … are”
68. For all the figures: It is better to use the same scales (i.e., y-axis) for easy comparisons.
69. Line 381: Delete “Meanwhile”
70. Lines 382-385: Please rewrite the sentence in more concise way.
71. Line 391: delete “,” before with.
72. Line 402: “many” 🡪 “ several”. It is better to rewrite the sentence. F
73. Lines 404-495: Split into two sentences by changing “, so” 🡪 “.”
74. Line 408: “focus on finding out” 🡪 “is focused on determining”
75. Line 410: “according to the directly” 🡪 “ based on”; delete “directly”; “to provide” 🡪 “and provides”.
76. Line 411: “in northwest China” 🡪 “in numerical weather predictions over the Northwest China”.
77. Lines 411-412: It is difficult to understand the meaning of the sentence. Please rewrite the last part the sentence starting with a new sentence. Please write a readable and understandable sentence.