General Comments:

This manuscript provides a precise and a valuable summary of the monthly aerosol optical properties and their vertical distributions in the Yangtze River Delta (YRD) region, and well analyzes the characteristics and meteorological conditions during the major transport periods in strengthening air pollution in YRD region. It is scientifically written, sound, original and well-structured. I recommend to accept it after minor revision as indicated below:

Specific comments:

1. Line 96, "these" can be deleted.
2. Line 113, please pay attention to the usage of the preposition.
3. Line 128, Please check the English grammar.
4. Line 255, Please check the English grammar.
5. Line 291, "and" can be deleted.
6. Line 408, Please check the English grammar.
7. Line 426, Please modify "the heights of 3 and 5 km".