This manuscript presents a significant and timely contribution to our understanding of ozone pollution dynamics in the GBA under tropical cyclone influence. The study provides a comprehensive three-dimensional characterization of O_3 transport mechanisms during TC events, thereby moving beyond previous work that has primarily focused on general TC-O_3 relationships. The combination of high-temporal-resolution wind profile measurements with hourly meteorological and air quality observations, supplemented by model simulations, represents a methodologically robust approach that enables detailed process-level understanding. The manuscript offers valuable quantitative insights into distance-dependent transport mechanisms. Notably, the finding that TC activity accounts for 39.9% of O_3 pollution episodes underscores the practical importance of this work for pollution forecasting and mitigation strategies in the GBA and other TC-affected bay regions globally.

Despite these considerable strengths, several aspects of the manuscript would benefit from further clarification and refinement to strengthen its scientific contribution and accessibility to the broader readership. Therefore recommend this manuscript for publication after **minor revisions** addressing the following points:

1.Formatting issues with superscript units. Multiple instances of incorrect superscript formatting for units such as "μg m -3" and "m s -1" are found throughout the manuscript. Please check and correct all unit expressions consistently throughout the text.

2.Lines 290-295: There appears to be a date inconsistency in this section. Please clarify whether the events occurred in July or August.

3.Line 295: The model results do not adequately address whether the elevated ozone concentrations at the HD site on the 23rd-24th were primarily due to local photochemical production or regional transport. Please provide additional analysis.

4.Line 341: There is an inconsistency in the surface wind direction for the HK on August 24th. Line 281 and Figure 5c both indicate southwesterly winds, while Line 341 describes northwesterly winds. Please verify the actual wind direction from the observational data and correct this discrepancy.

5.Line371-374: How does the RI value at the GZ site indicate the occurrence of convergence? Does " which led to reduced wind speeds within the boundary layer" refer to horizontal or vertical wind speed? Please specify.And The explanation in lines 371-374 transitions abruptly from wind speed changes to terrain and urbanization effects. Please provide more detailed explaining.

6.Line 376: Based on Figure 10, O_3 appears to be more uniformly mixed within the boundary layer at the GZ site, which seems inconsistent with the text description.

7.Line 385-392: The relationship between O_3 and VWS requires more detailed explanation.

Specifically, the authors should clarify: (1) how VWS magnitude corresponds to O_3 levels (i.e., whether larger/smaller VWS values correspond to higher or lower O_3 concentrations), and (2) how changes in VWS affect o O_3 concentrations. Currently, this section provides minimal explanation of these mechanisms . And "But the HK station had a higher boundary layer height that could accommodate more O_3." this statement appears contradictory: if the boundary layer can accommodate more O_3, one might reasonably infer that O_3 concentrations would be lower. However, the HK actually exhibits higher O_3 concentrations. The authors should provide more comprehensive explanations to reconcile this apparent inconsistency and ensure logical coherence in their interpretation.