The authors have made satisfactory revisions to the manuscript, which could be accepted subject to technical corrections during English editing with language improvements. For example： The revised manuscript is below:

The Taklamakan Desert (TD) is a major dust source in East Asia, yet the dynamic and thermal processes associated with dust-storm development remain insufficiently understood from vertically resolved observations. This study combined dual-gradient tower observations from Tazhong (TZ) and Xiaotang (XT) in the TD, ERA5 reanalysis data, and backward trajectories calculated with the Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) model to examine eight dust-storm events in spring and summer 2024. Three main pre-storm airflow pathways were identified: east-inflow transport through the northeastern Tarim Basin, mountain-crossing transport across the Tianshan–Pamir region, and south-to-north transport across the Tibetan Plateau and Kunlun Mountains. Meteorological anomaly diagnostics show that spring events maintained stronger mean sea-level pressure-gradient and 850-hPa geopotential-height-gradient anomalies throughout the pre-onset period, while 10-m wind speed anomalies increased rapidly after approximately 12 h. In contrast, summer events showed stronger thermal signals before approximately −18 h, including enhanced surface air temperature contrast, positive net shortwave radiation anomalies, and boundary layer growth. Tower observations further indicate stronger summer warming and closer-to-onset enhancement of wind speed and wind shear. Differences between TZ and XT suggest that local terrain modulates the near-surface response to regional dynamic and thermal forcing. These findings provide observational evidence for seasonal differences in dust-storm processes in the Taklamakan Desert.