1. Line 617: Please spell out "WNW" in full, consistent with the use of "southwest (SW)" and "southeast (SE)" in Line 405.

**Response:** We have been modified the it as "This can be explained by the transport from clean areas to the **west and west-north-west** of Beijing, as indicated by the air mass trajectories arriving in Beijing at 300m, 500 m and 1000m, at 10:00, 13:00 and 16:00 LT (Fig. 6c)."

2. Line 628: "12:00 LT" should be corrected to "13:00 LT" **Response:** Corrected. Thanks for pointing this out.

3. Lines 679–680: Please revise "The Ratio, defined as the ratio of total to NS NO<sub>2</sub> concentrations" to "The Ratio, defined as the ratio of total VCD to NS NO<sub>2</sub> concentrations," as "VCD" is missing. **Response:** Corrected. Thanks for pointing this out.