

Figure S1 Meteorological observations at BUCT-AHL during the study period. Time is shown in Beijing local time.

The following weather maps were created by National Institute of Informatics "Digital Typhoon" based on "Weather Charts" from Japan Meteorological Agency.

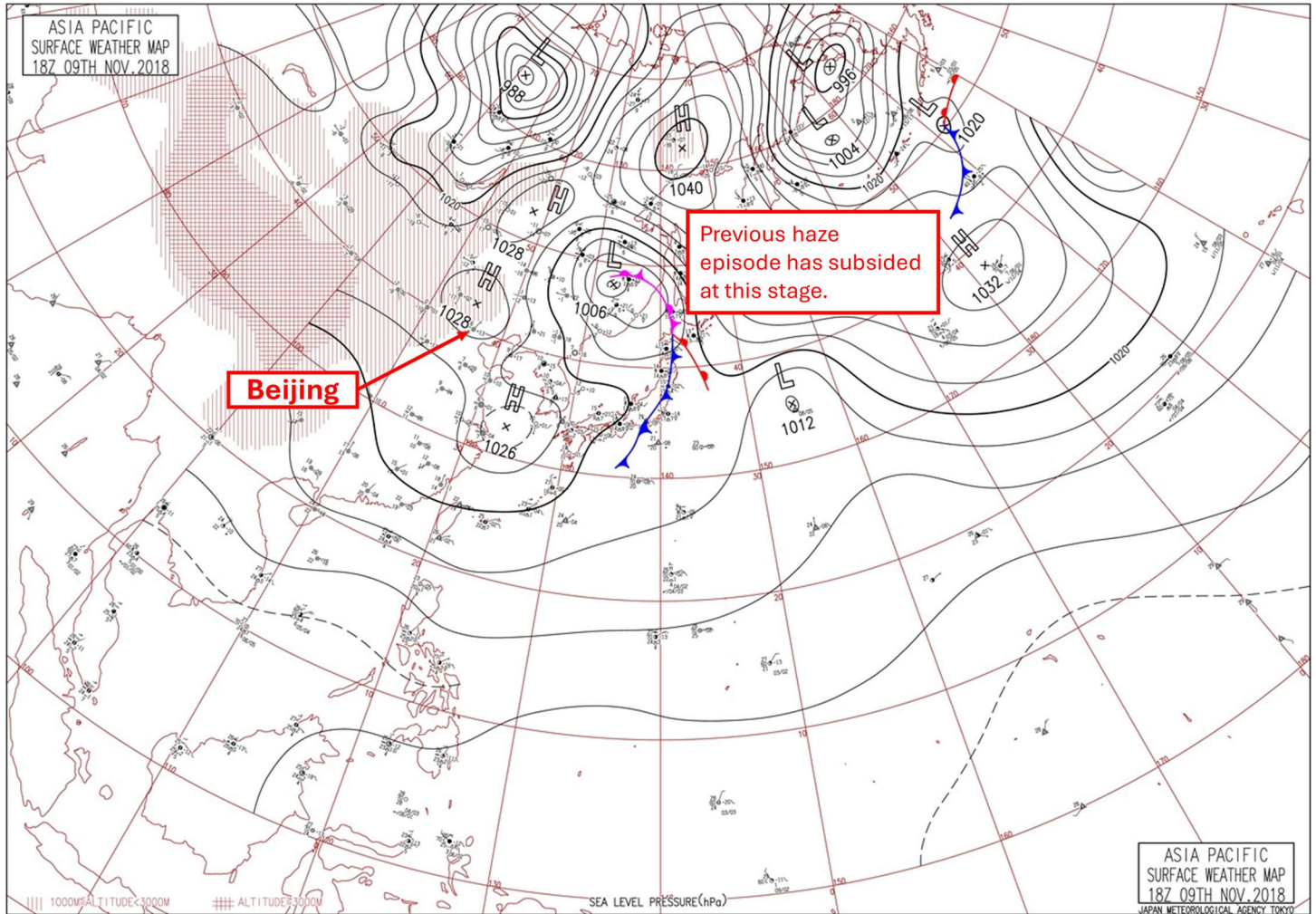


Figure S2 Surface weather chart at 18:00 UTC on 9 November 2018.

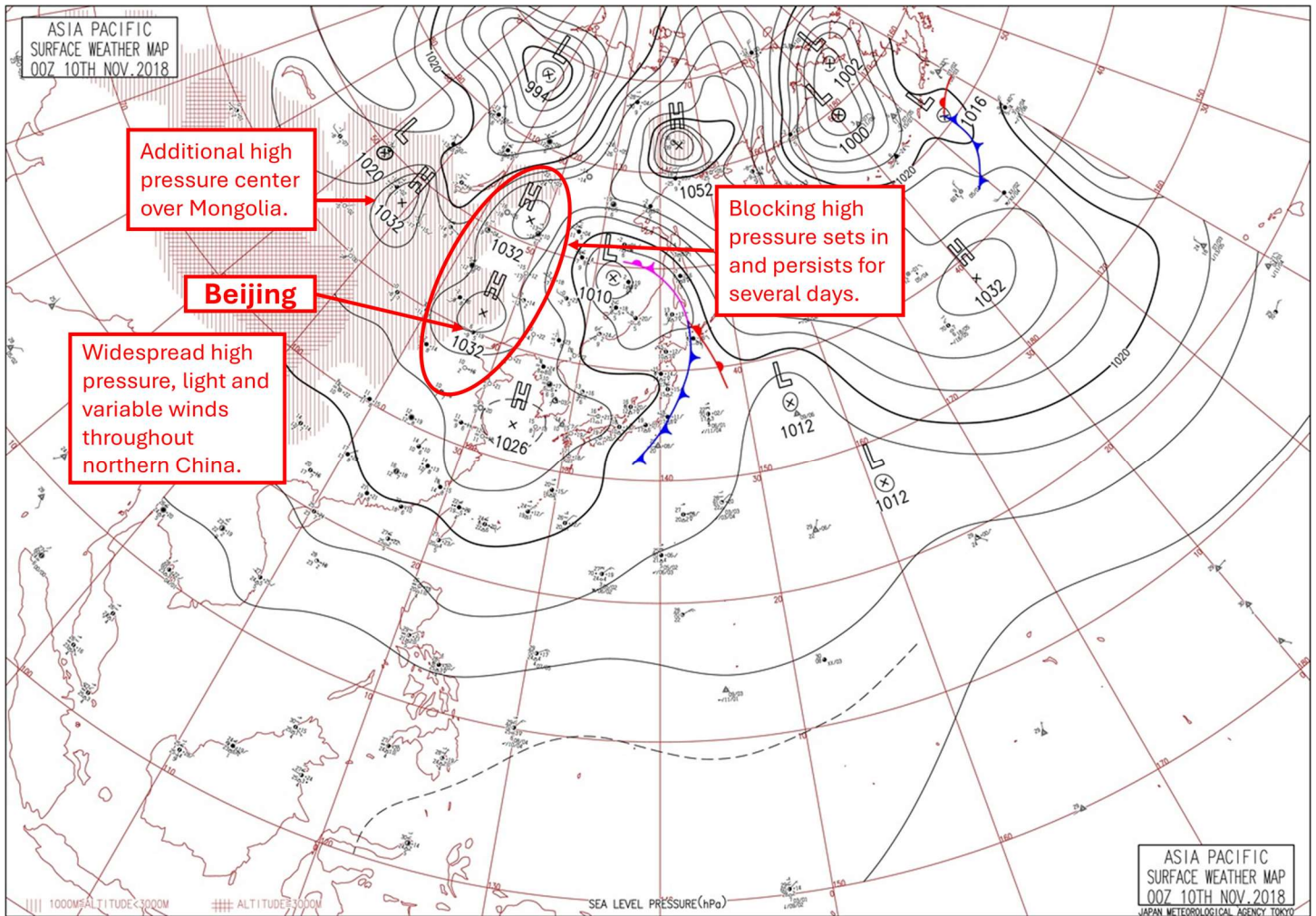


Figure S3 Surface weather chart at 00:00 UTC on 10 November 2018. This is the beginning of the haze episode.

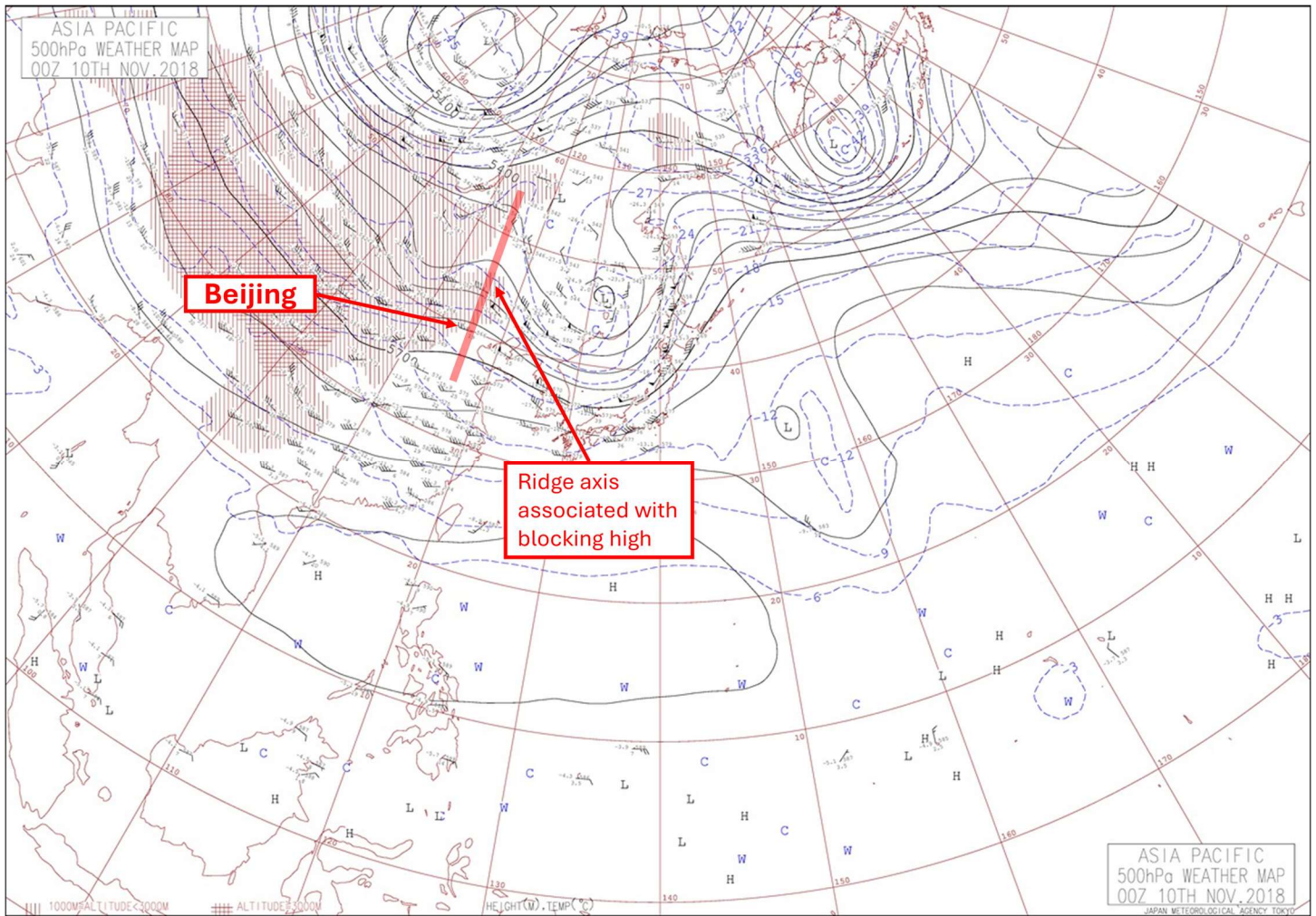


Figure S4 500 hPa weather chart at 00:00 UTC on 10 November 2018. This is the beginning of the haze episode.

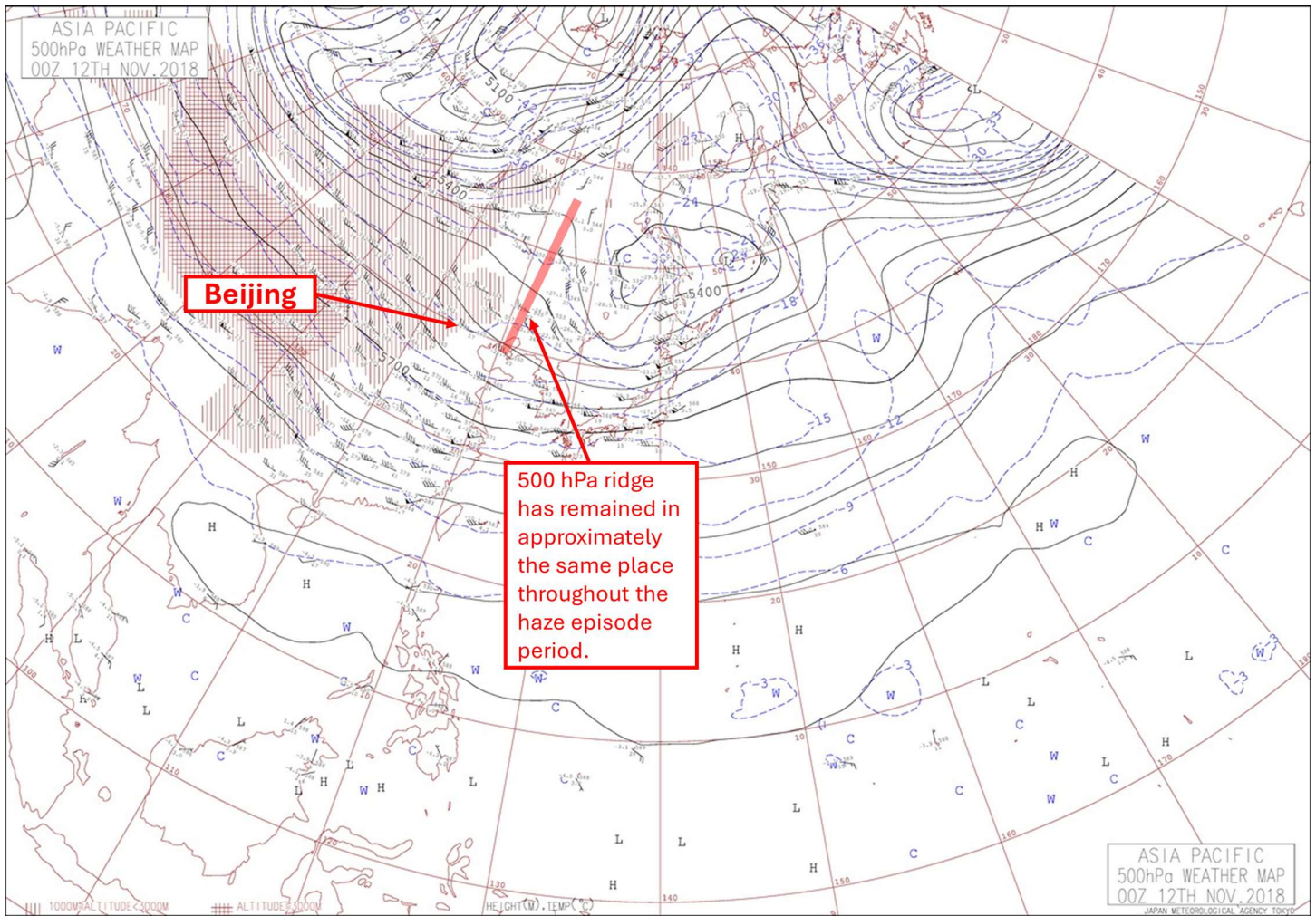


Figure S6 500 hPa weather chart at 00:00 UTC on 12 November 2018. The haze episode is ongoing.

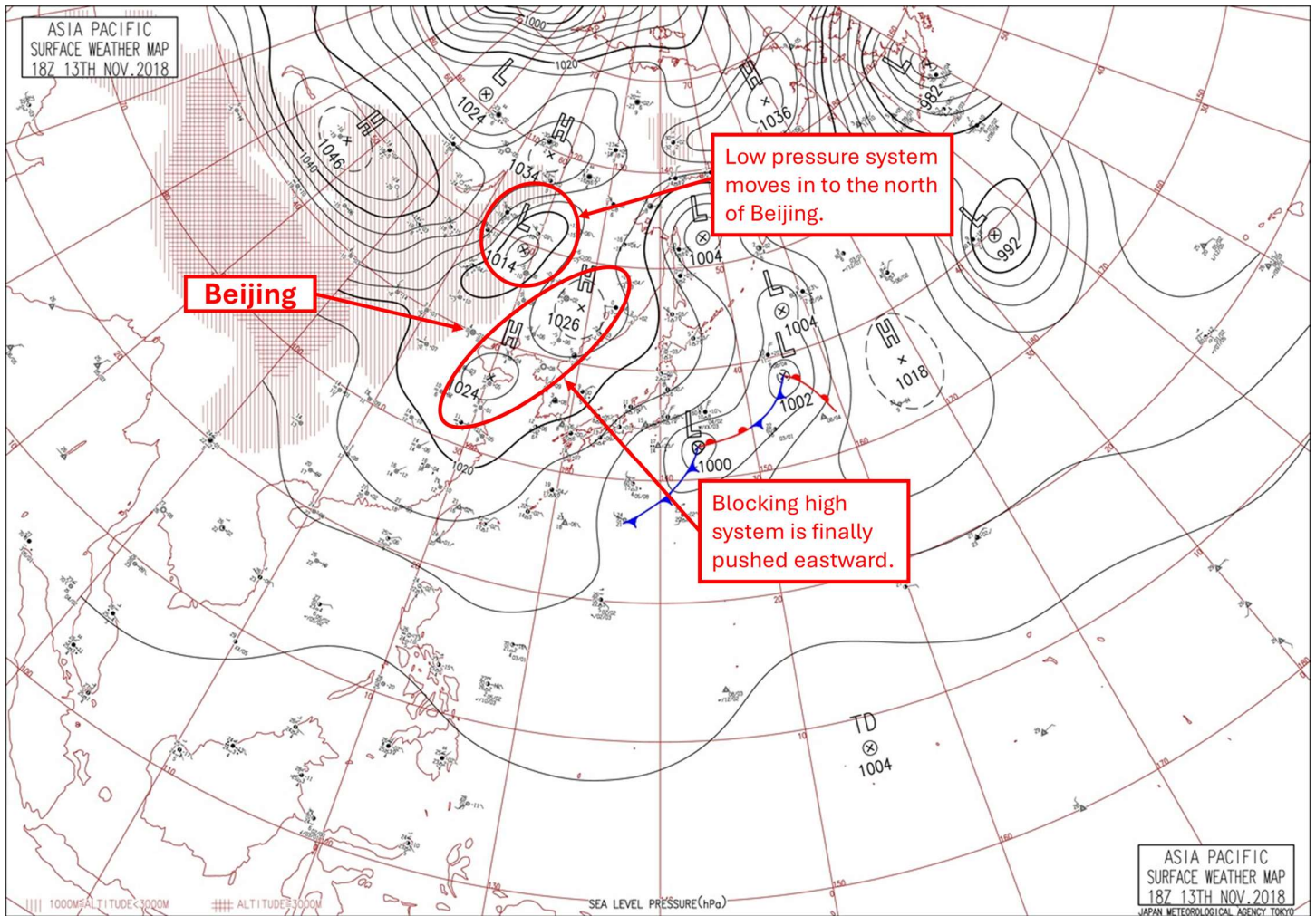


Figure S7 Surface weather chart at 18:00 UTC on 13 November 2018. The haze episode continues but changing conditions come soon.

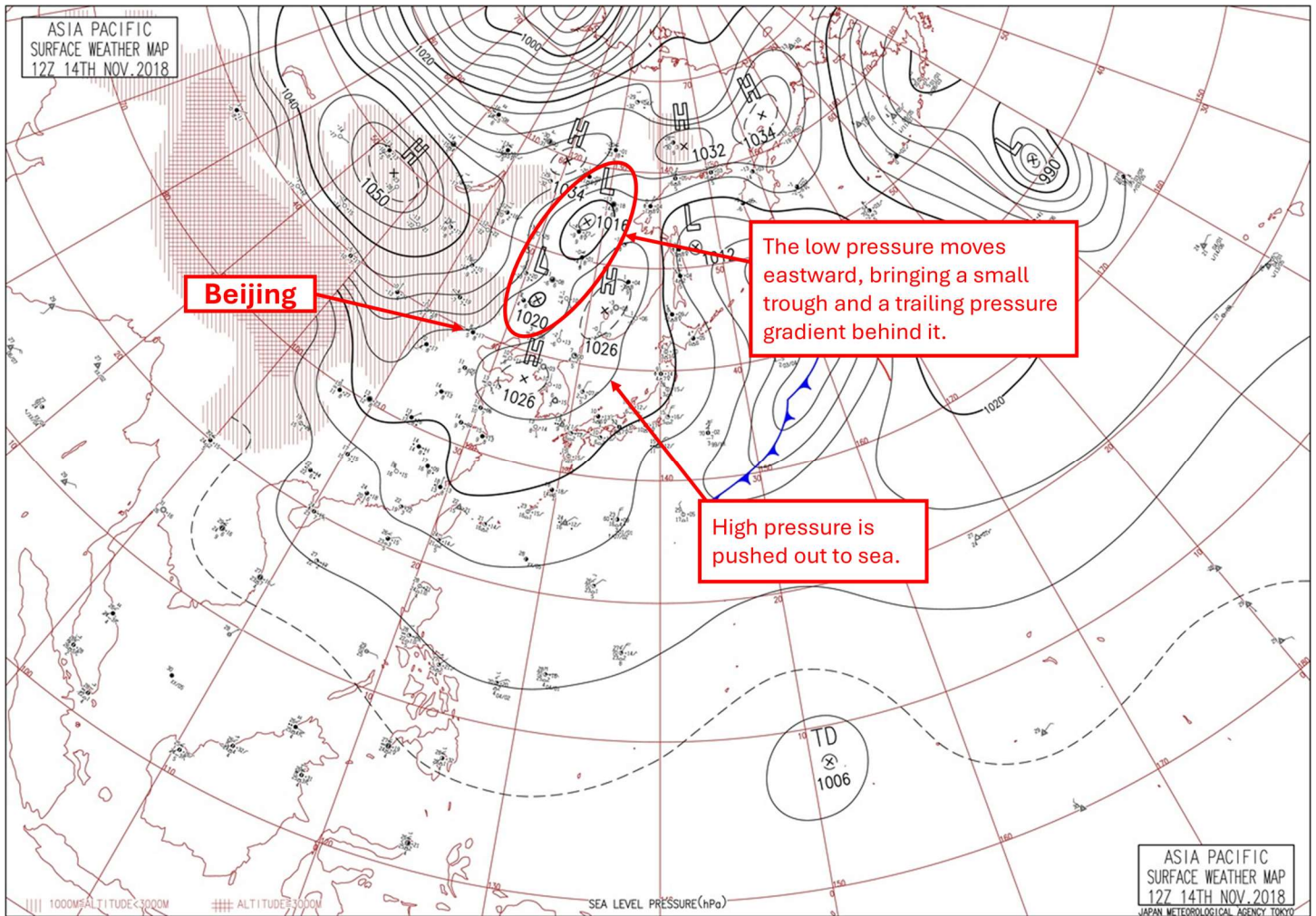


Figure S8 Surface weather chart at 12:00 UTC on 14 November 2018. The haze episode has reached its peak, and the blocking high pressure has been pushed eastward, leading to the episode soon being over.

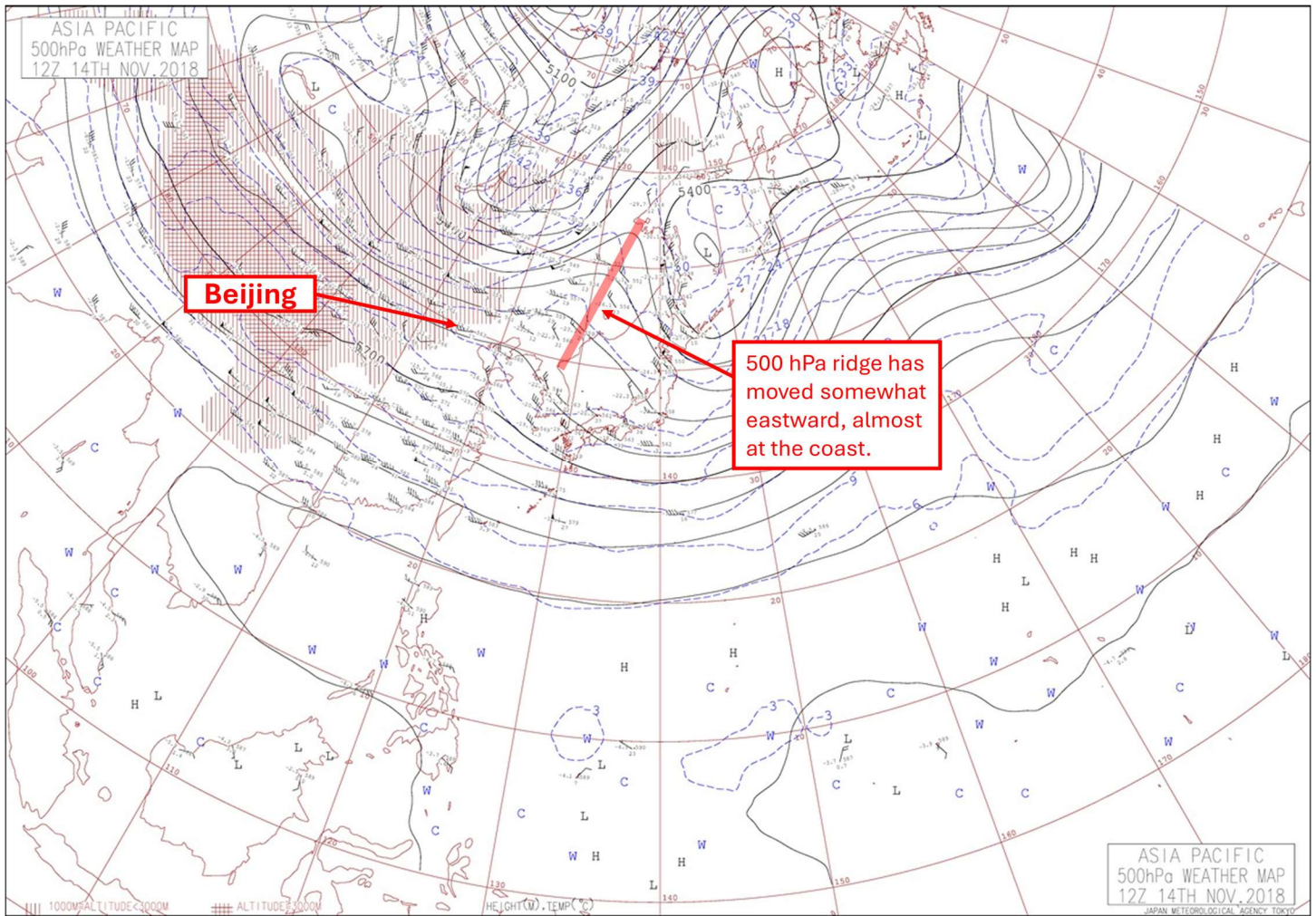


Figure S9 500 hPa weather chart at 12:00 UTC on 14 November 2018. The haze episode will soon be cleared out of the Beijing area.

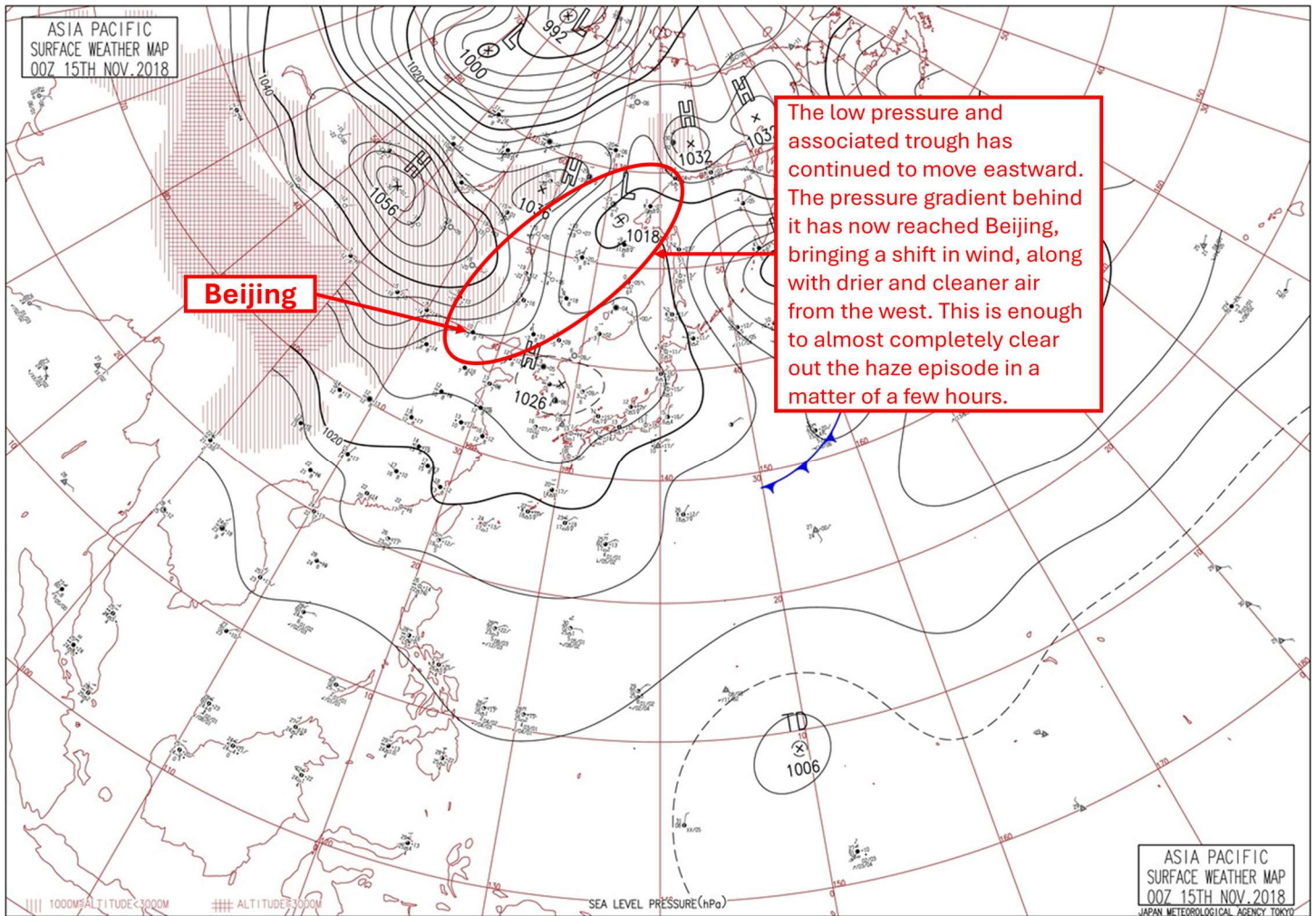


Figure S10 Surface weather chart at 00:00 UTC on 15 November, 2018 (8:00 am local time). The new weather system has entered the Beijing region and is in the process of clearing out the haze episode.

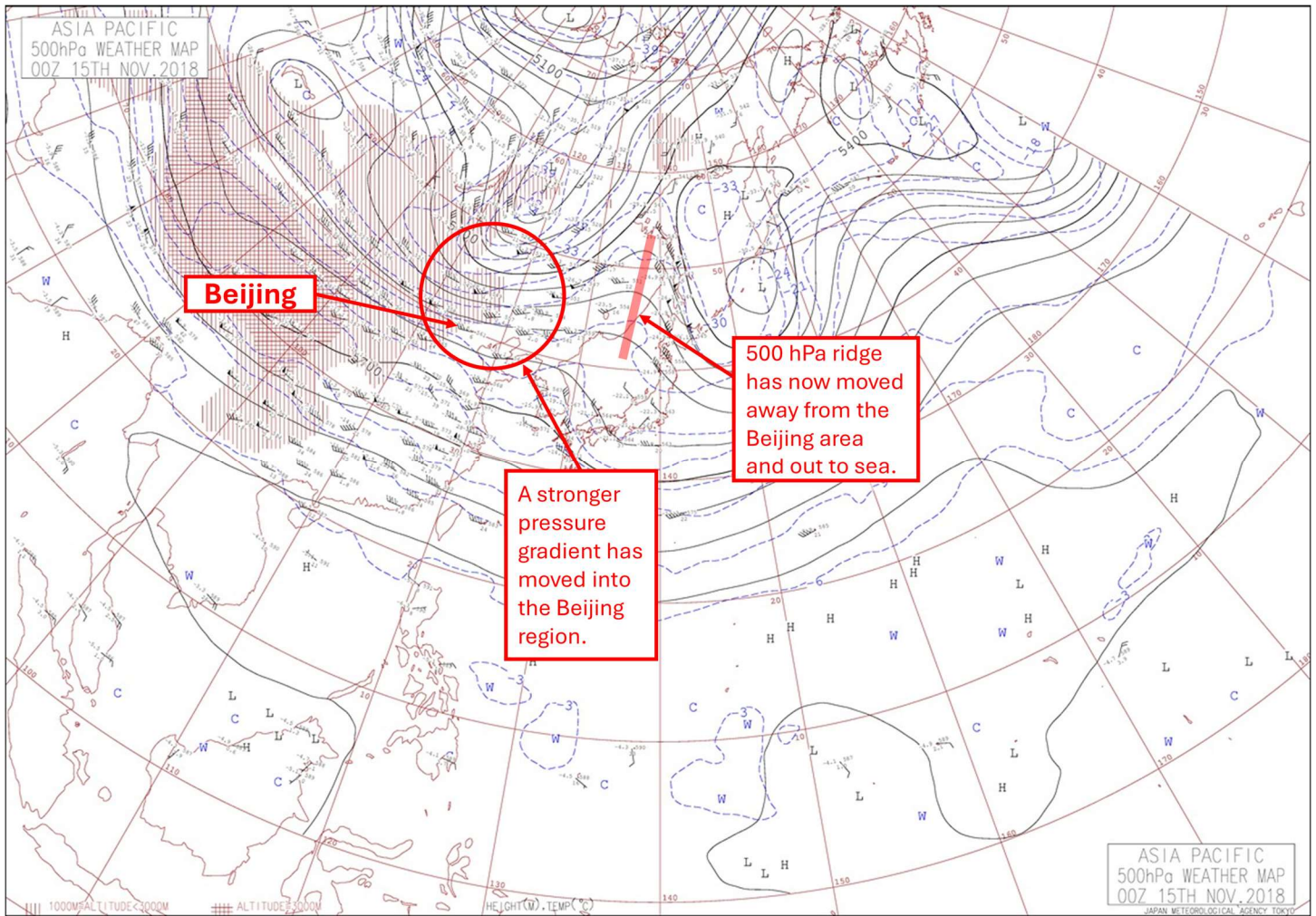


Figure S11 500 hPa weather chart at 00:00 UTC on 15 November, 2018 (8:00 am local time). The new weather system has entered the Beijing region and is in the process of clearing out the haze episode.

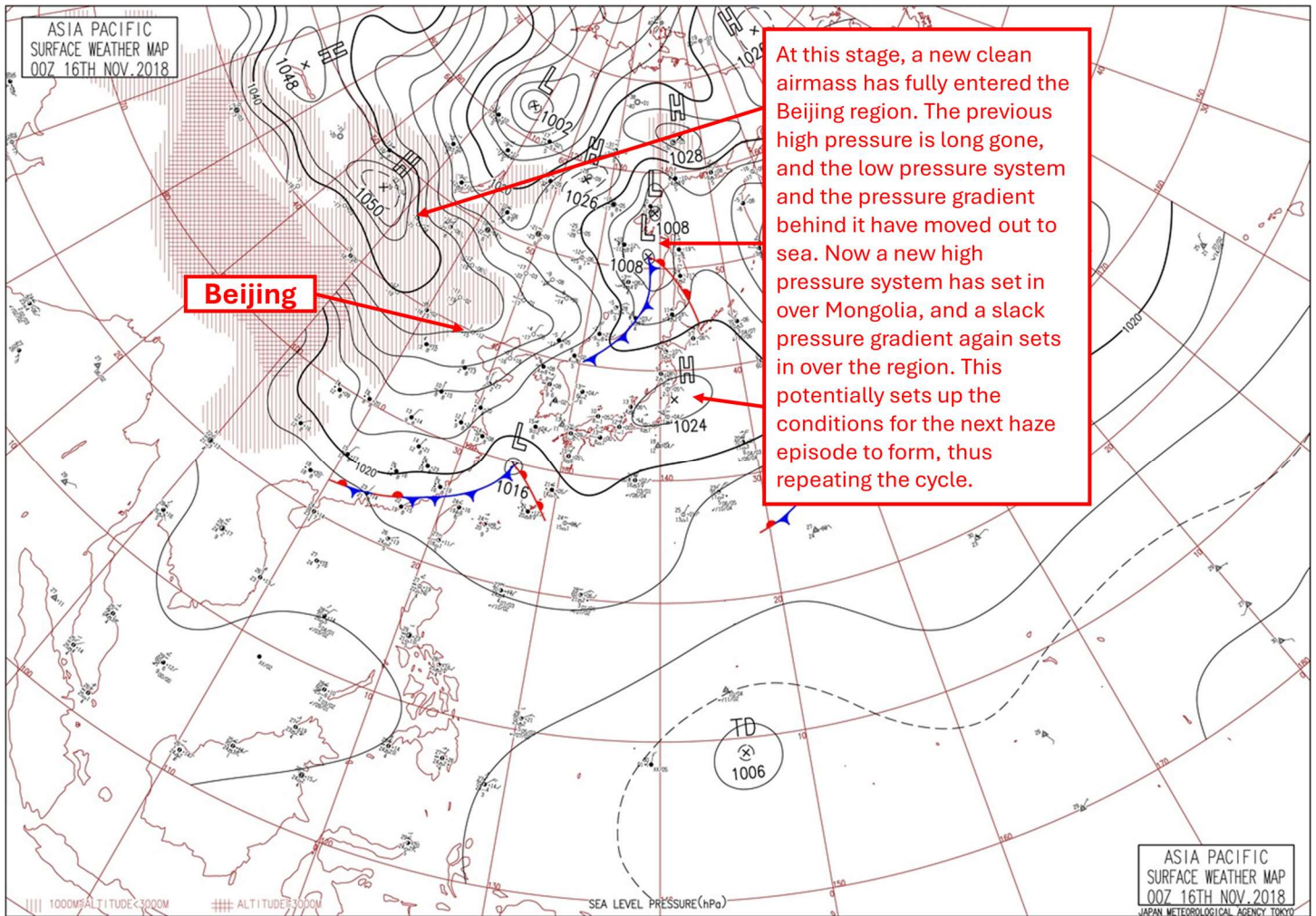


Figure S12 Surface weather chart at 00:00 UTC on 16 November 2018. At this stage, the haze episode has been completely cleared out of the Beijing region.

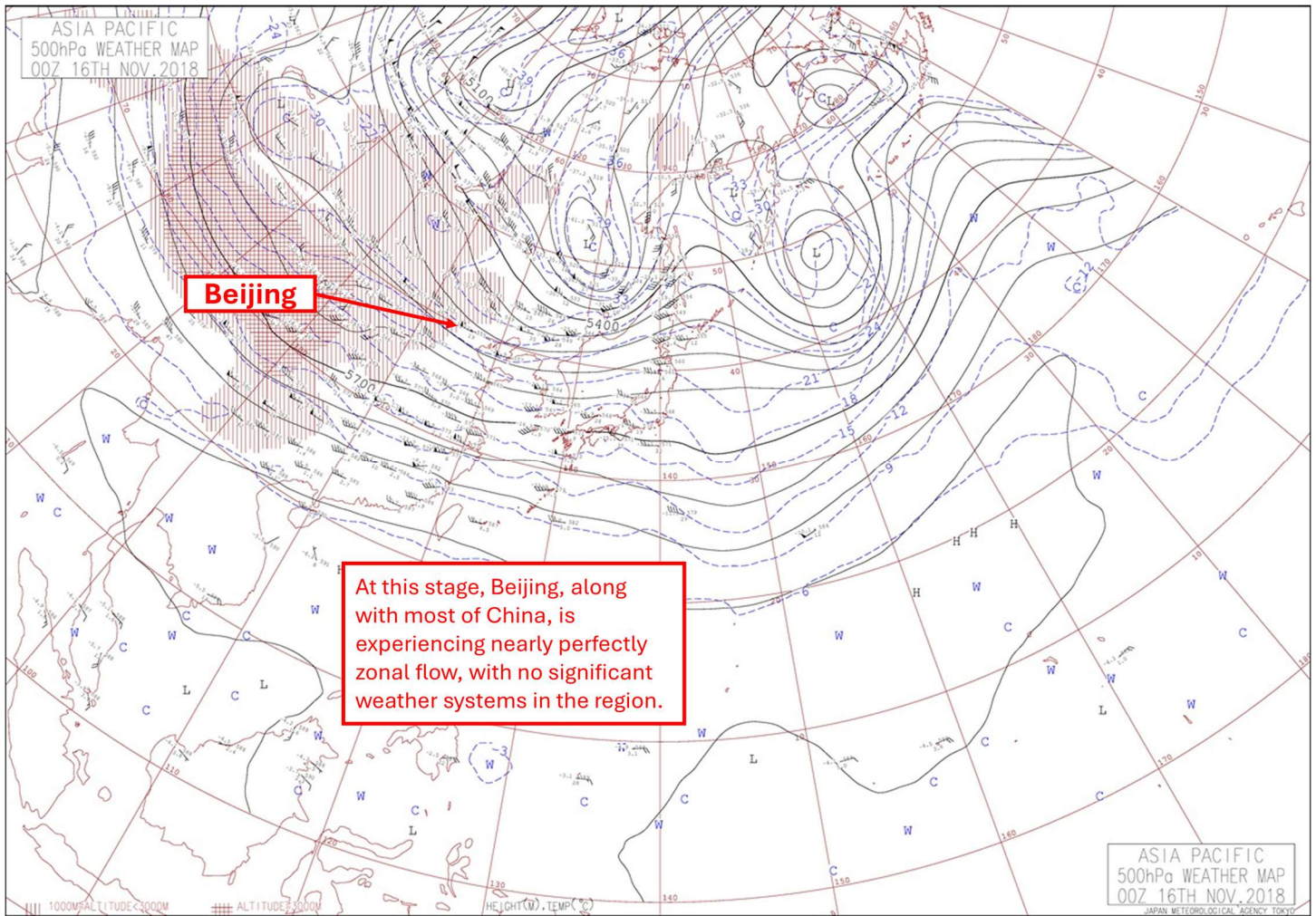


Figure S13 500 hPa weather chart at 00:00 UTC on 16 November 2018. At this stage, the haze episode has been completely cleared out of the Beijing region. This figure shows almost perfectly zonal flow over northern and eastern China at this time.

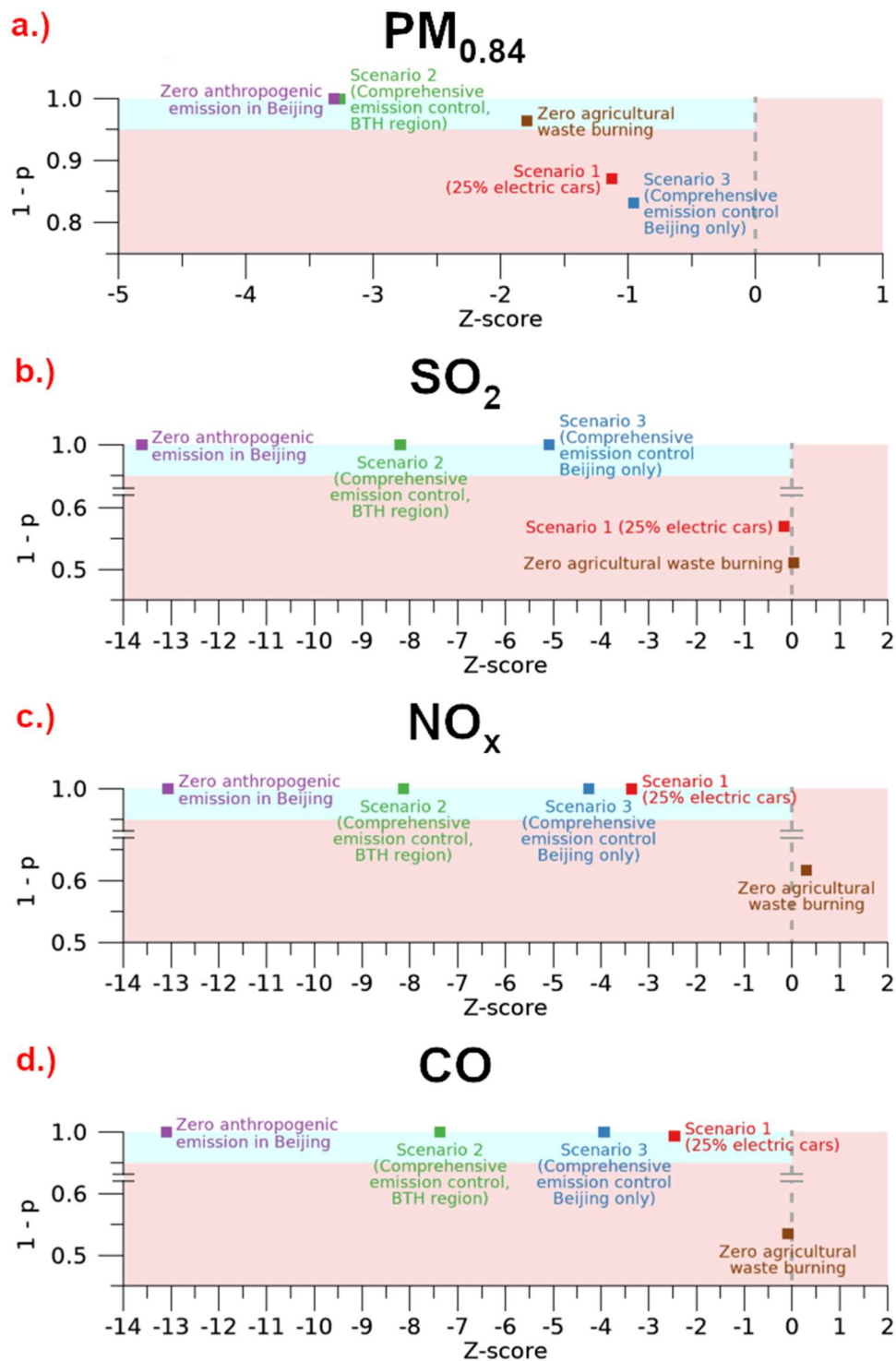


Figure S14 Visualization of the Mann-Whitney statistical test on scenarios and sensitivity tests, compared to the base case. The goal, highlighted in blue, is that the scenario would result in a reduction in concentrations ($Z < 0$), and that the result is statistically significant ($1-p \geq 0.95$). The red area means there is no statistically significant reduction in concentration for the given scenario or sensitivity test.