Correction to “On the influence of the meridional circulation and surface pressure change on the Arctic Oscillation”

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[1] In the paper “On the influence of the meridional circulation and surface pressure change on the Arctic Oscillation” by Y. Kuroda (Journal of Geophysical Research, 110, D21107, doi:10.1029/2004JD005743, 2005), Figures 2, 4, 5, 6, 7, and 9 were incorrect. The corrected figures appear below. The error was made because of mis-scaling of the thermal forcing (scaling of exp(kz/H was incorrectly included). However, as the influence of this correction is significant only in the upper stratosphere, major conclusions of original article are almost not changed by this correction.

Figure 2. Same as Figure 1 except for (top) mechanical forcing and (bottom) thermal forcing with zonal mean meridional circulation. Contour interval is 0.2 ms⁻¹day⁻¹ (0.2 Kday⁻¹) for the mechanical (thermal) forcing. The horizontal (vertical) reference arrow indicates 6 × 10⁻² ms⁻¹ (3 × 10⁻³ ms⁻¹). Small vectors are neglected.
Figure 4. (top) Calculated meridional circulation and (bottom) surface pressure tendency corresponding to the observed eddy forcings in Figure 2. Arrows indicate velocities on the meridional plane. The horizontal (vertical) reference arrow indicates 6 × 10^{-2} ms^{-1} (3 × 10^{-4} ms^{-1}). The contour interval is 5 × 10^{8} kgs^{-1} for the mass stream function, and the unit of the vertical axis is 0.01 hPa day^{-1} for the surface pressure tendency. Small vectors are neglected.

Figure 5. Same as Figure 4 except for those from mechanical and thermal forcings at lag 0.
Figure 6. Same as Figure 4 except for wave forcings from all waves (ALL), zonal wave number 1 (WN1), 2 (WN2), 3 (WN3), and 4 and higher components (WN4+) at lag 0 days.

Figure 7. Same as Figures 2 and 4 except for wave forcing from high-frequency transient components at lag 0 days. The mechanical and thermal forcings calculated from these components are shown to the left.
Figure 9. (top) Zonal mean zonal wind, (middle) meridional circulation, and (bottom) sea level pressure calculated by integrating the zonal mean quasi-geostrophic mechanistic model with observed eddy forcings and tropospheric diabatic heating associated with the AO. Contour interval is 1 ms$^{-1}$ for zonal wind and $5 \times 10^8$ kgs$^{-1}$ for the mass stream function. The unit for sea level pressure is hPa. The horizontal (vertical) reference arrow indicates $6 \times 10^{-2}$ ms$^{-1}$ ($3 \times 10^{-4}$ ms$^{-1}$). Small vectors are neglected. See text for details.