

Supplementary material for

The role of grid resolution, latent heat release, and initialisation time on the simulation of Storm Éowyn and its impacts

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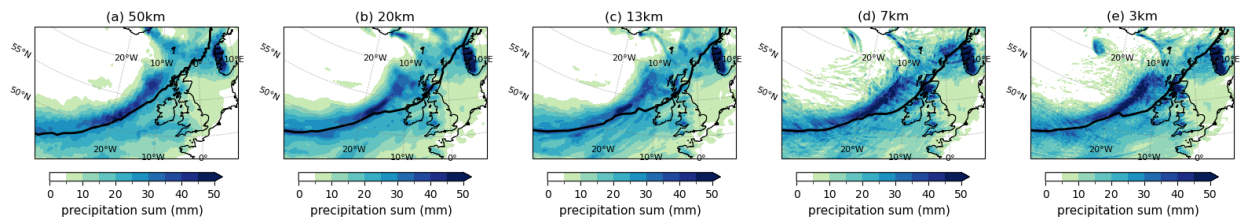


Figure S1. Grid point-wise precipitation sum (shading, mm) associated with Storm Éowyn (use of 1000km radius around cyclone centre). The black line marks the cyclone track.

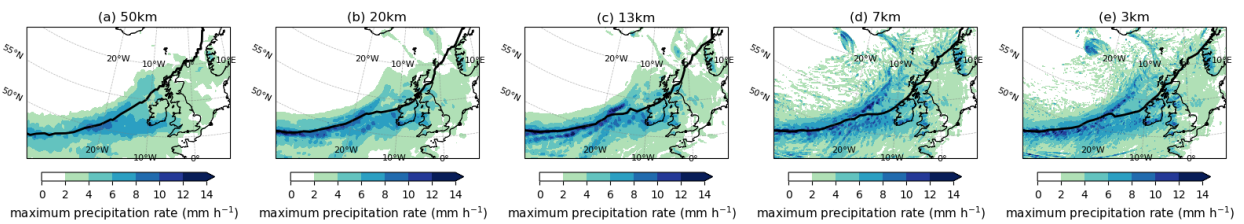


Figure S2. Grid point-wise maximum 1h-precipitation rate (shading, mm h^{-1}) associated with Storm Éowyn (use of 1000km radius around cyclone centre). The black line marks the cyclone track.

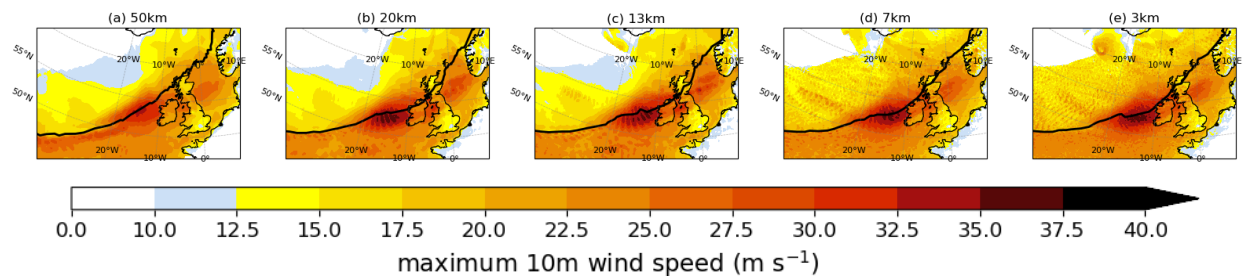


Figure S3. Grid point-wise maximum 10m wind speed (shading, m s^{-1}) associated with Storm Éowyn (use of 1000km radius around cyclone centre). The black line marks the cyclone track.

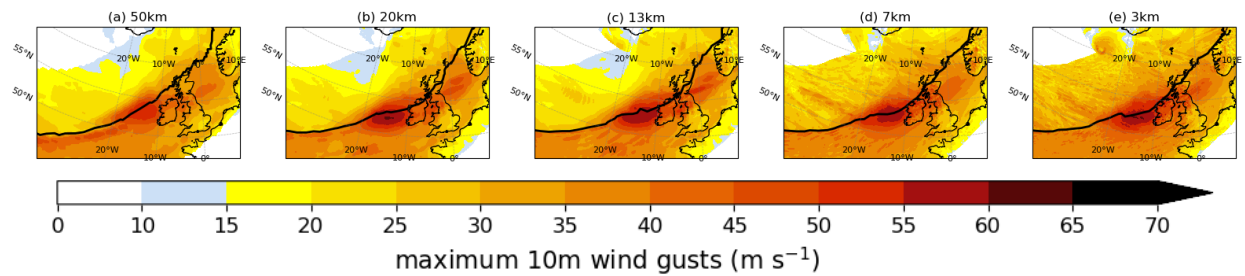


Figure S4. Grid point-wise maximum 10m wind gusts (shading, m s^{-1}) associated with Storm Éowyn (use of 1000km radius around cyclone centre). The black line marks the cyclone track.

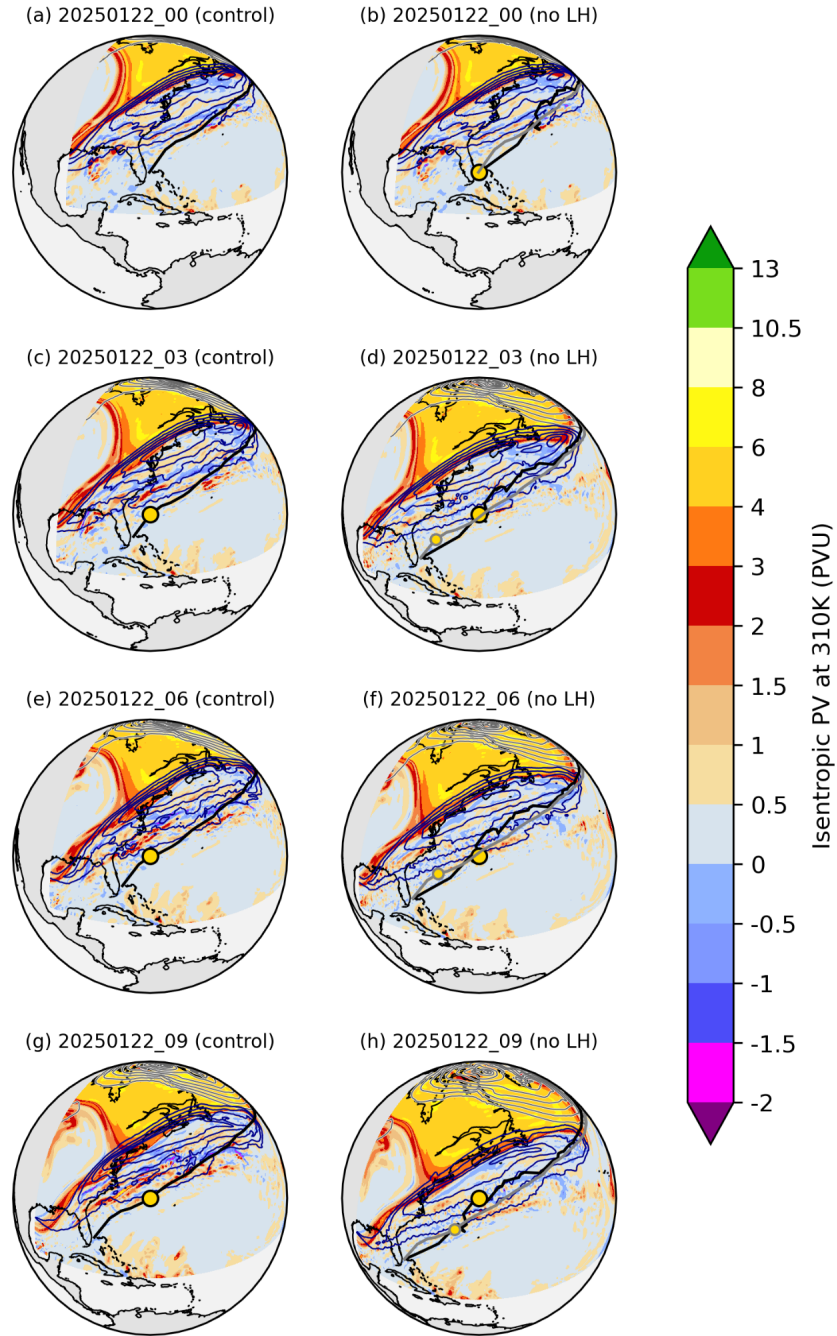


Figure S5. Evolution of upper-level PV at 310K (shading, PVU), 250hPa wind speed (blue contours, 60-100ms⁻¹ in steps of 10ms⁻¹), and SLP (grey contours, 940 to 1010hPa in steps of 5hPa) for the control simulation (left column) and the no LH experiment (right column) for four selected time steps (see subtitles). Both simulations were initialised at 00 UTC on 22 January with a horizontal grid spacing of 13km. Black lines denote cyclone tracks, and the gold marker the instantaneous cyclone centre. In the right column, the cyclone track from the control simulation is overlaid in grey to facilitate direct comparison with the no LH track (black).

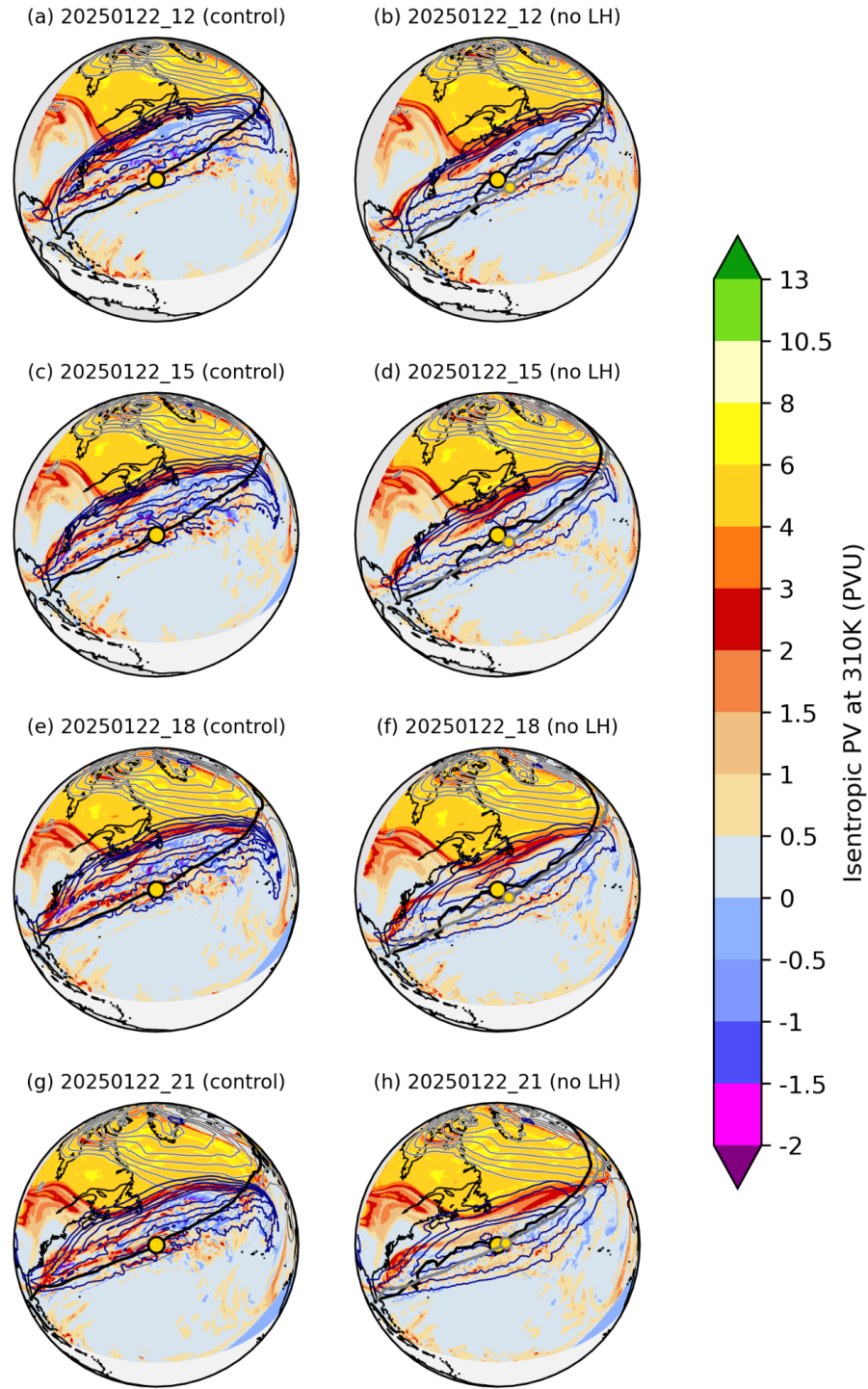


Figure S6. Same as Figure S5, but for four different time steps.

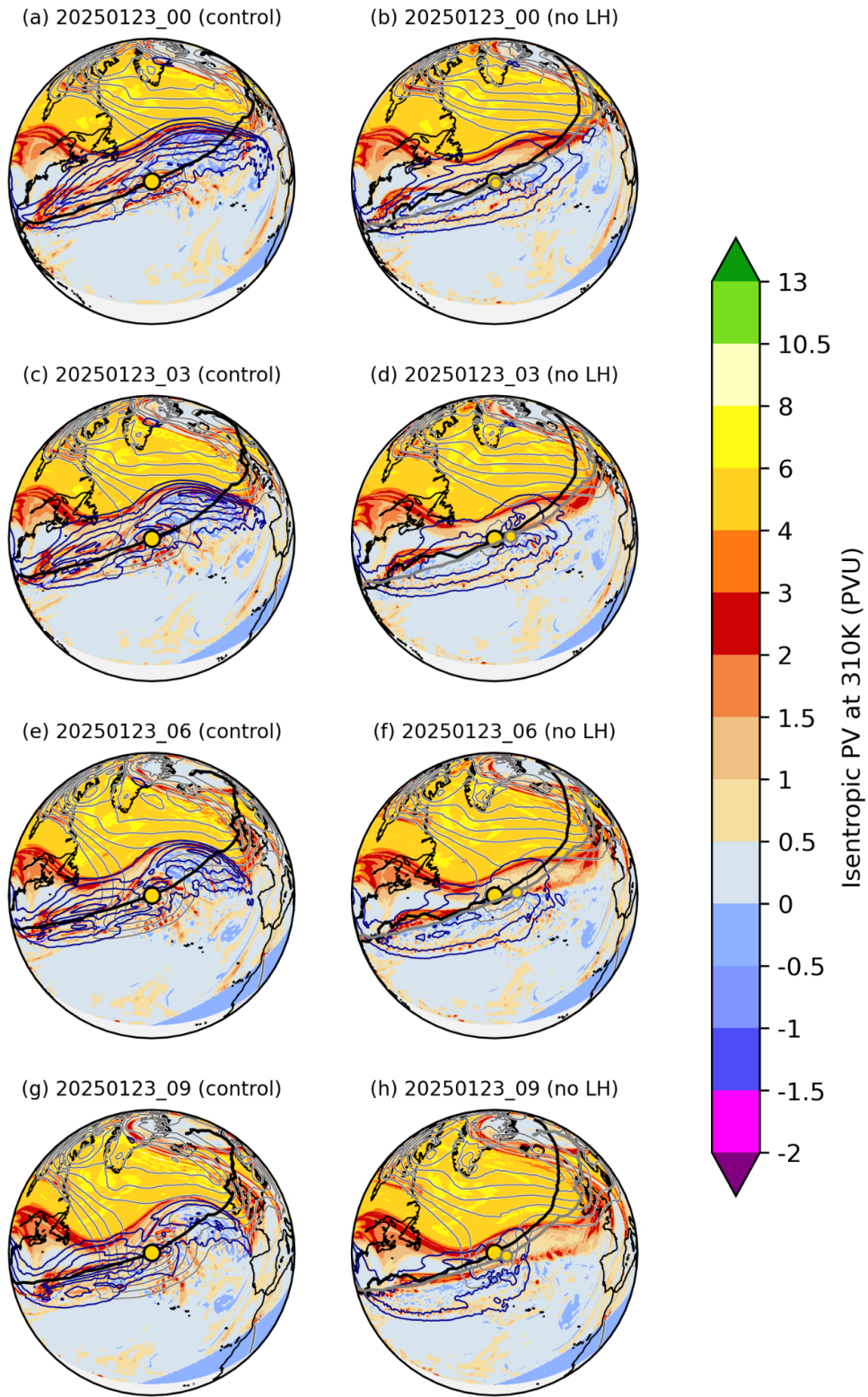


Figure S7. Same as Figure S5, but for four different time steps.

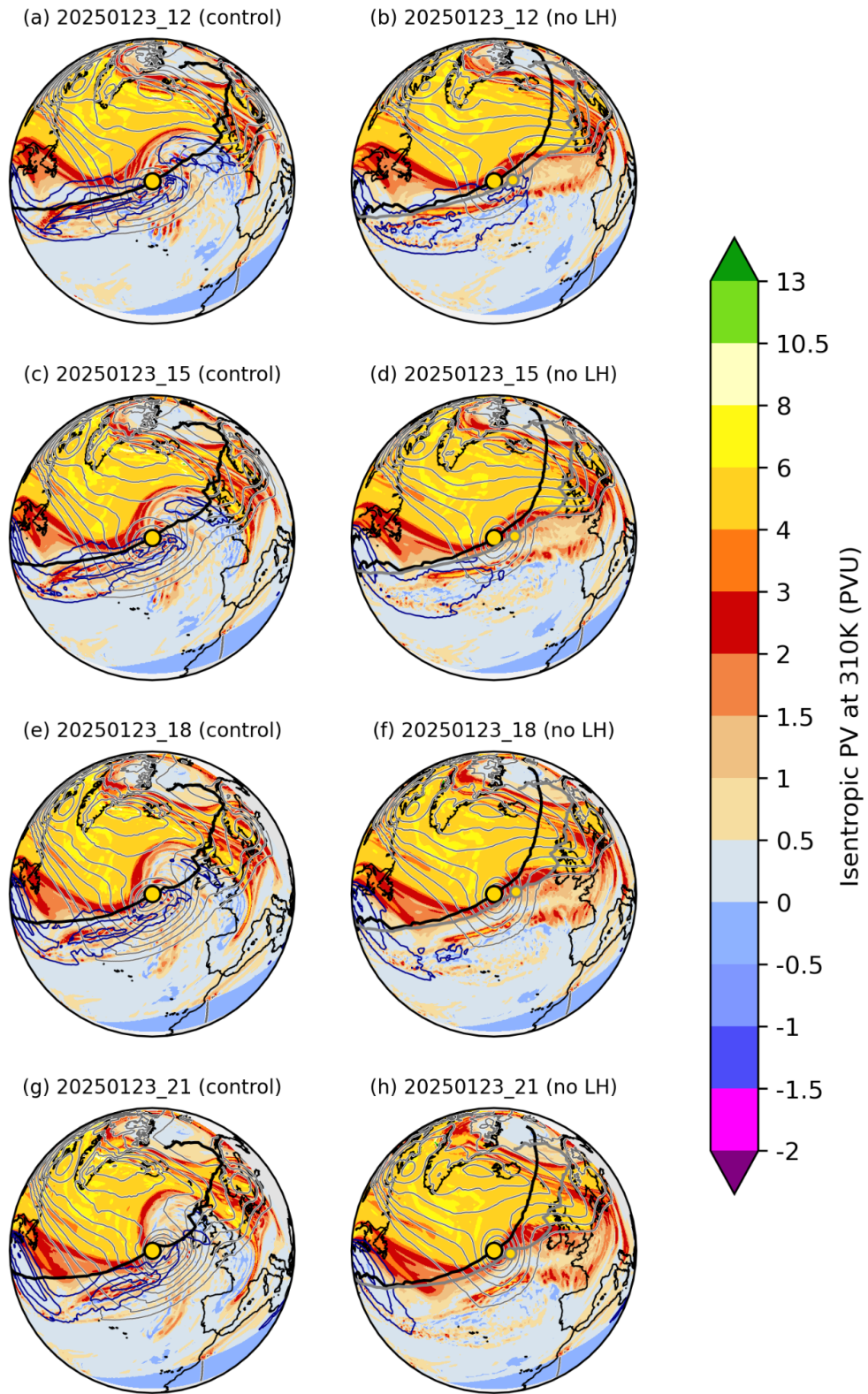


Figure S8. Same as Figure S5, but for four different time steps.

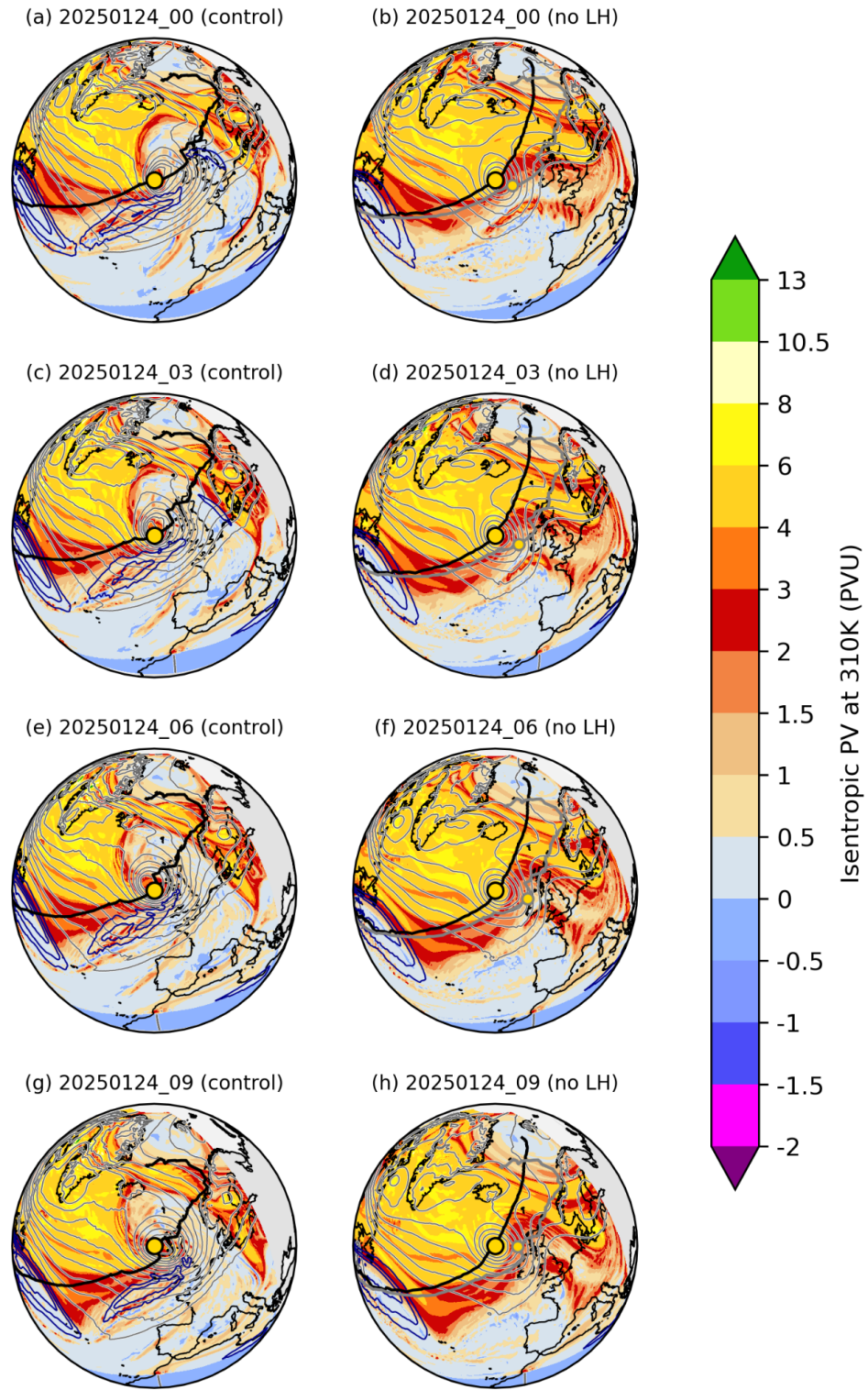


Figure S9. Same as Figure S5, but for four different time steps.

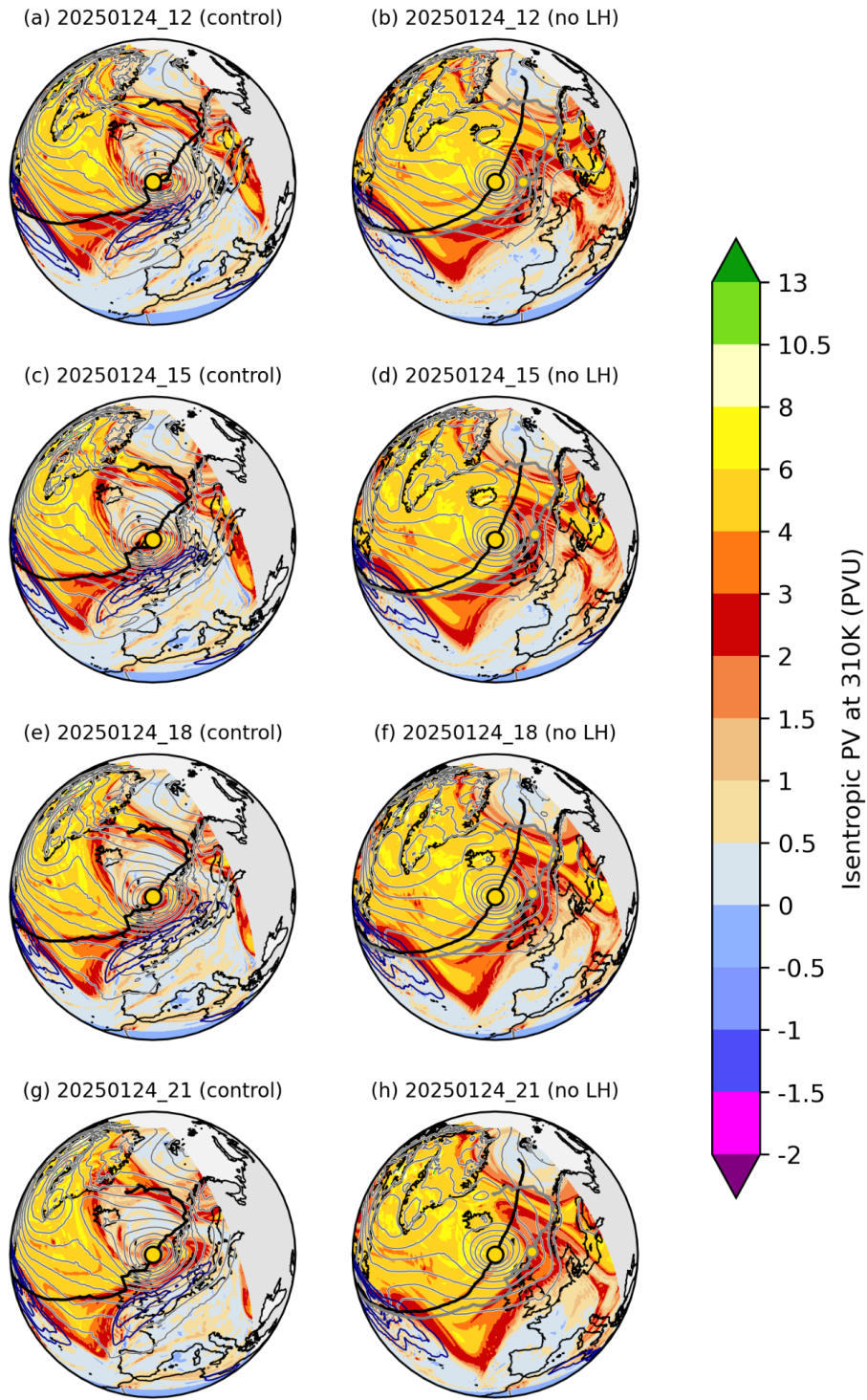


Figure S10. Same as Figure S5, but for four different time steps.

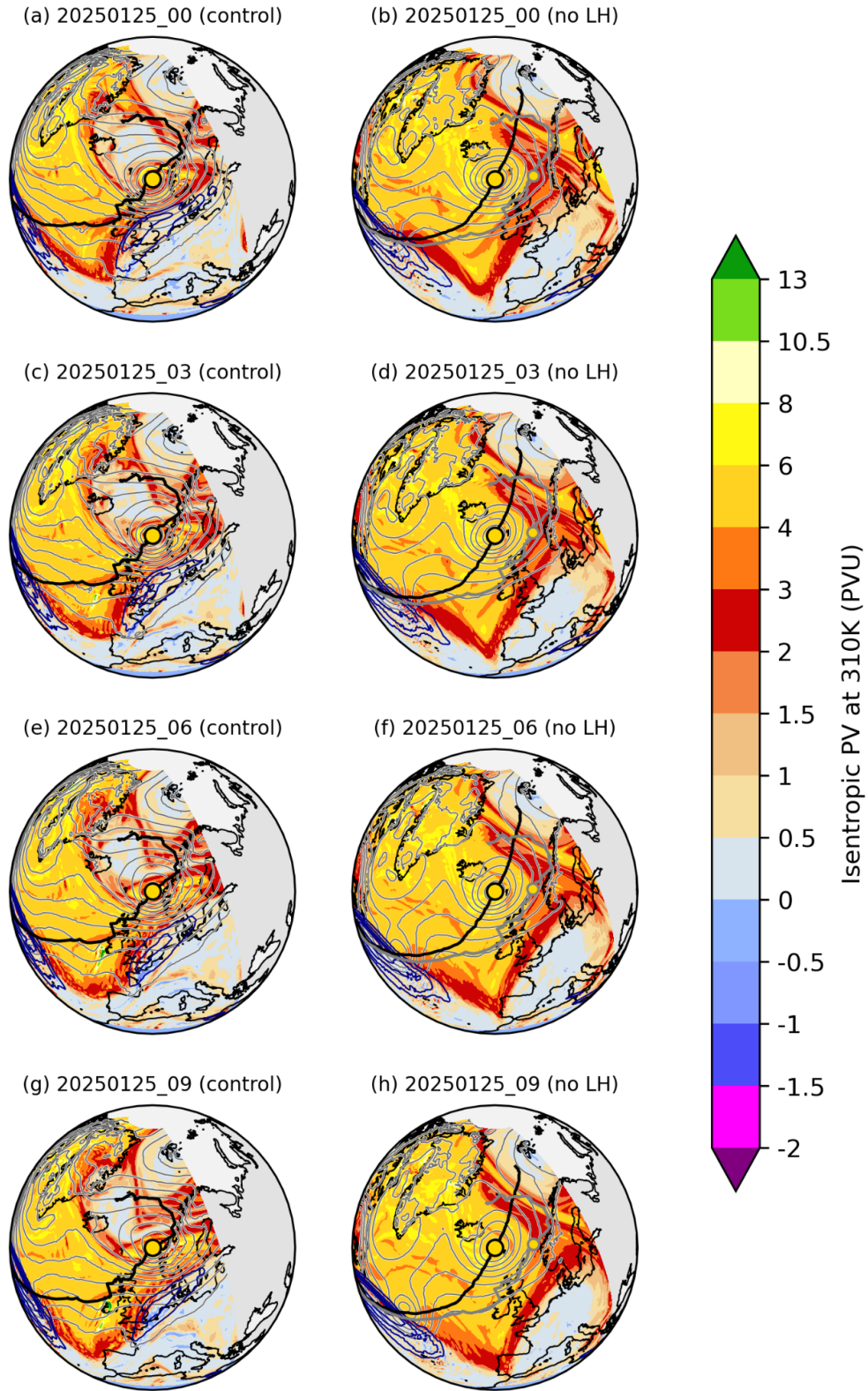


Figure S11. Same as Figure S5, but for four different time steps.

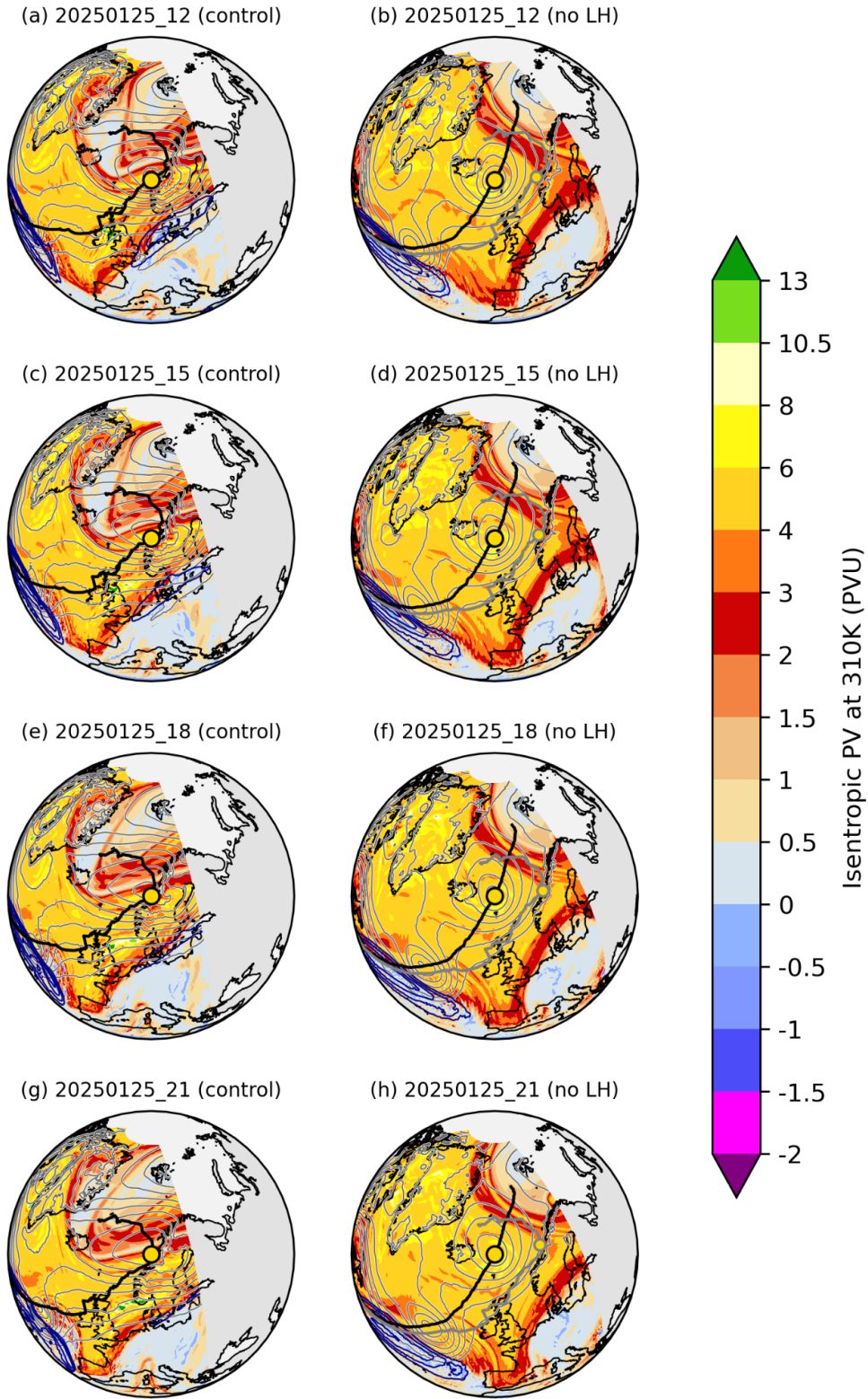


Figure S12. Same as Figure S5, but for four different time steps.