

Supplementary Materials:

Morphology of the Wavenumber 1 and Wavenumber 2 Stratospheric Kelvin Waves using the Long-Term Era-Interim Reanalysis Dataset

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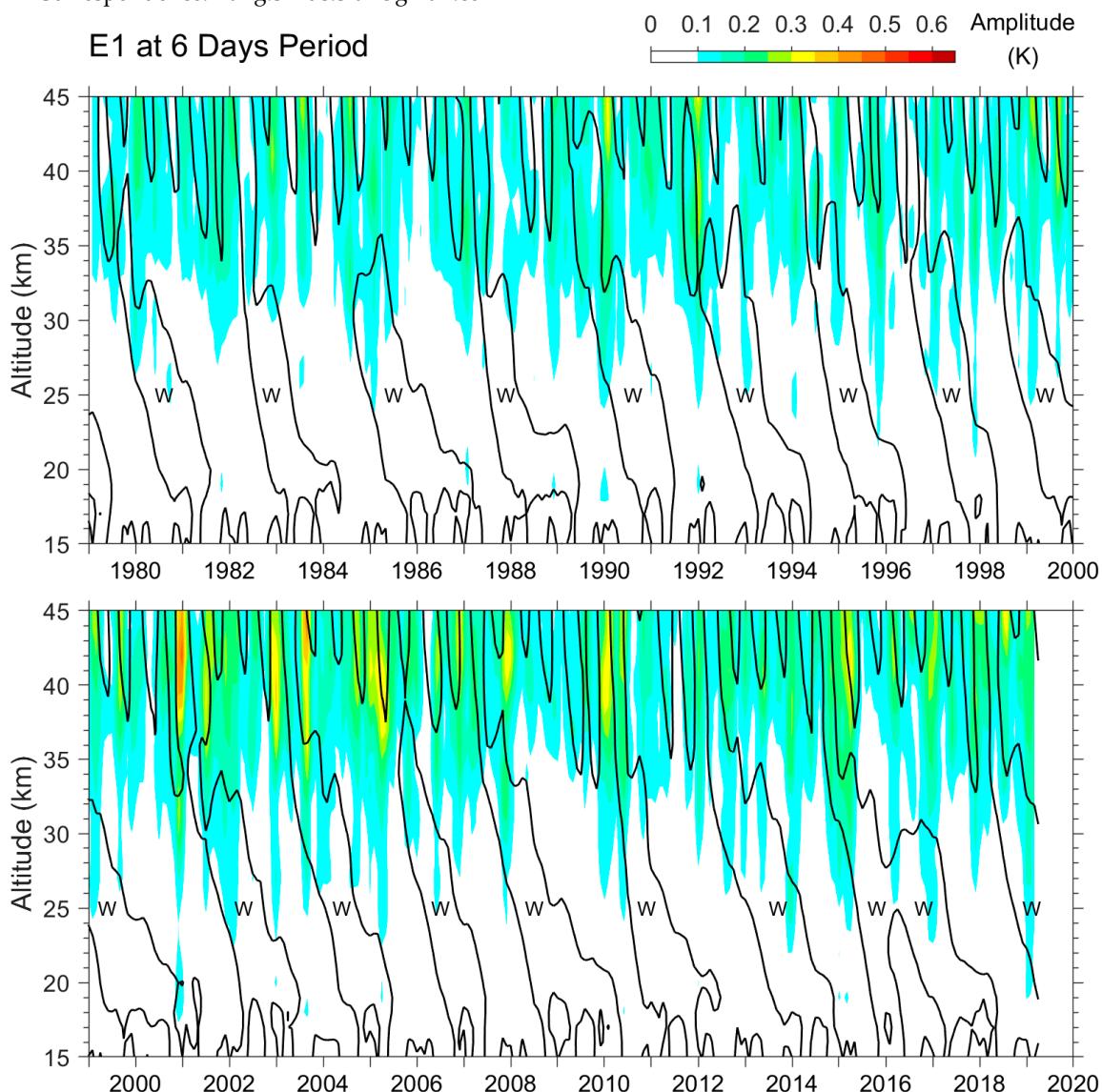


Figure S1. The amplitude of the 6-day E1 wave during (**upper panel**) 1979–2000 and (**lower panel**) 1999–early 2019. The zero-zonal wind contours are plotted by black lines, and the westerly regimes of the stratospheric QBO are identified.

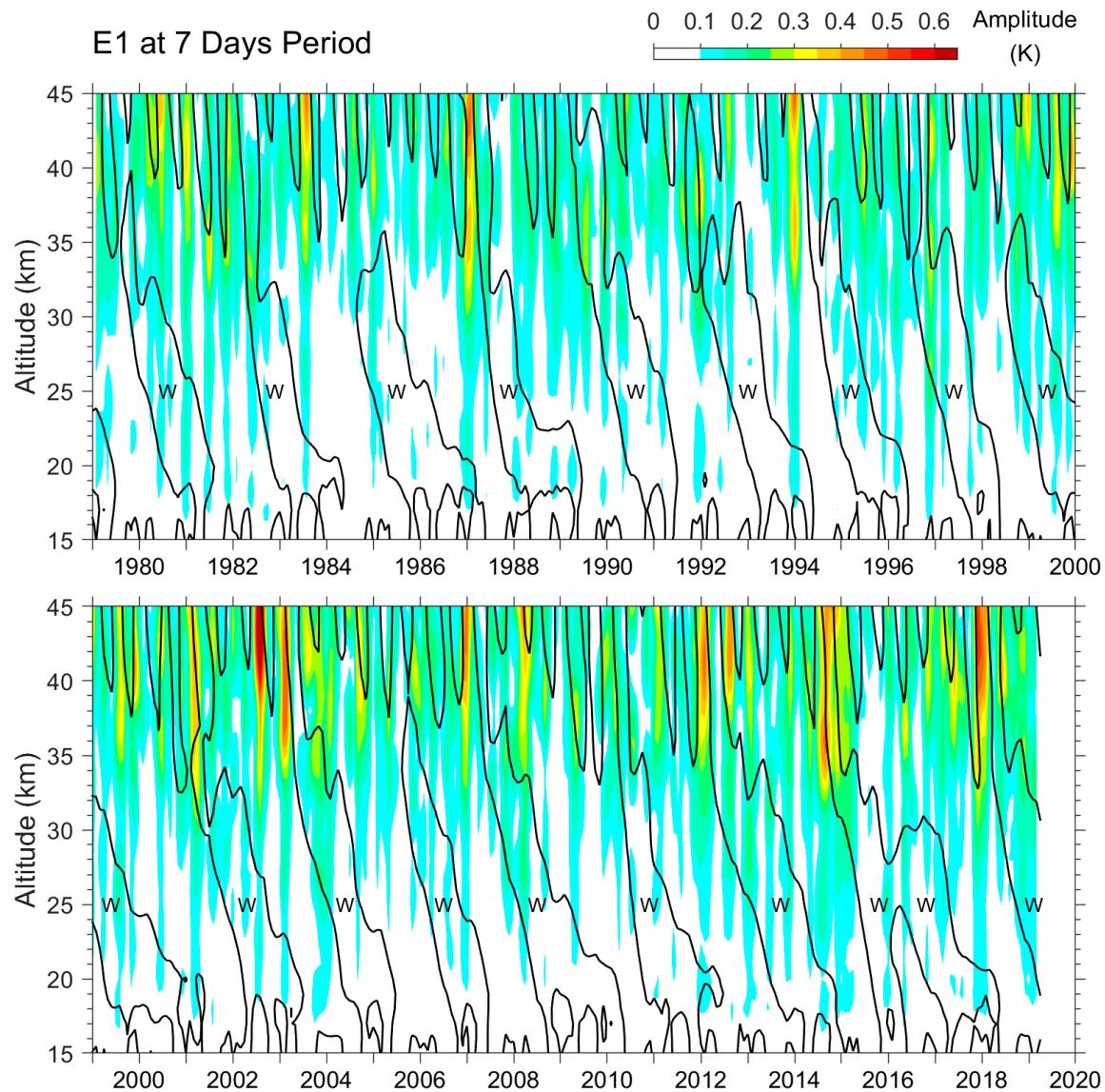


Figure S2. Same as in Figure S1, but showing the amplitude of the 7-day E1 wave.

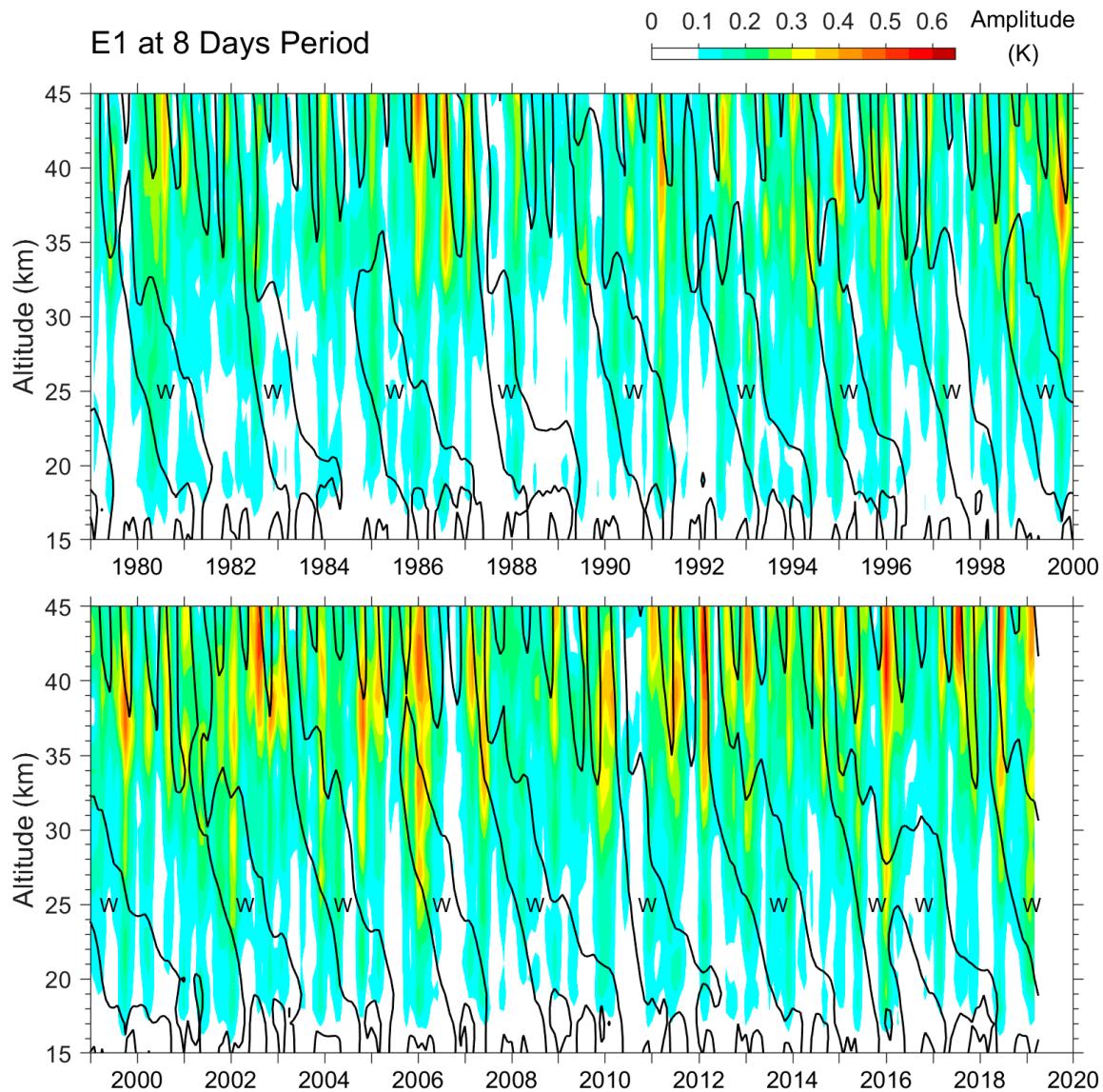


Figure S3. Same as in Figure S1, but showing the amplitude of the 8-day E1 wave.

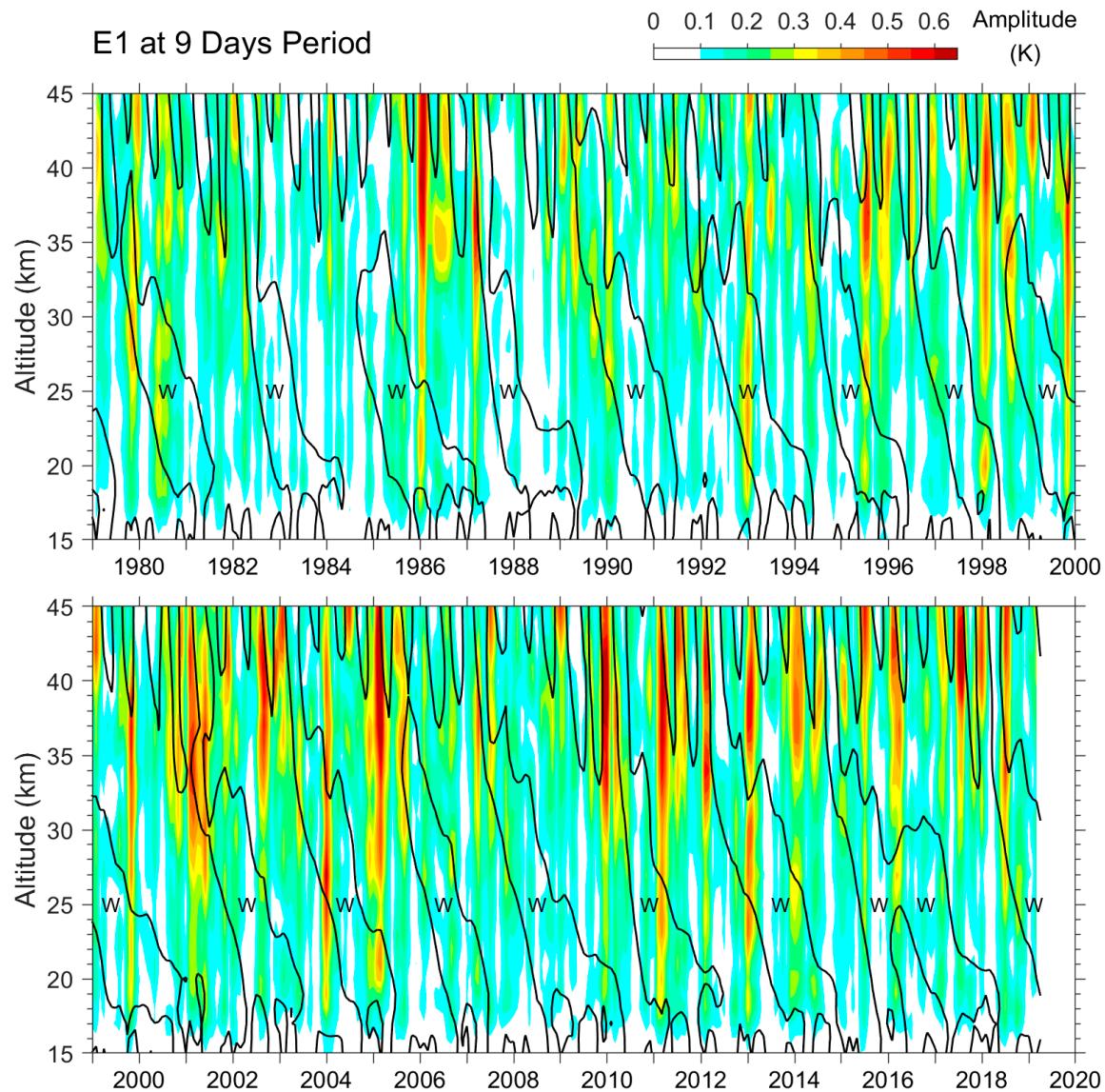


Figure S4. Same as in Figure S1, but showing the amplitude of the 9-day E1 wave.

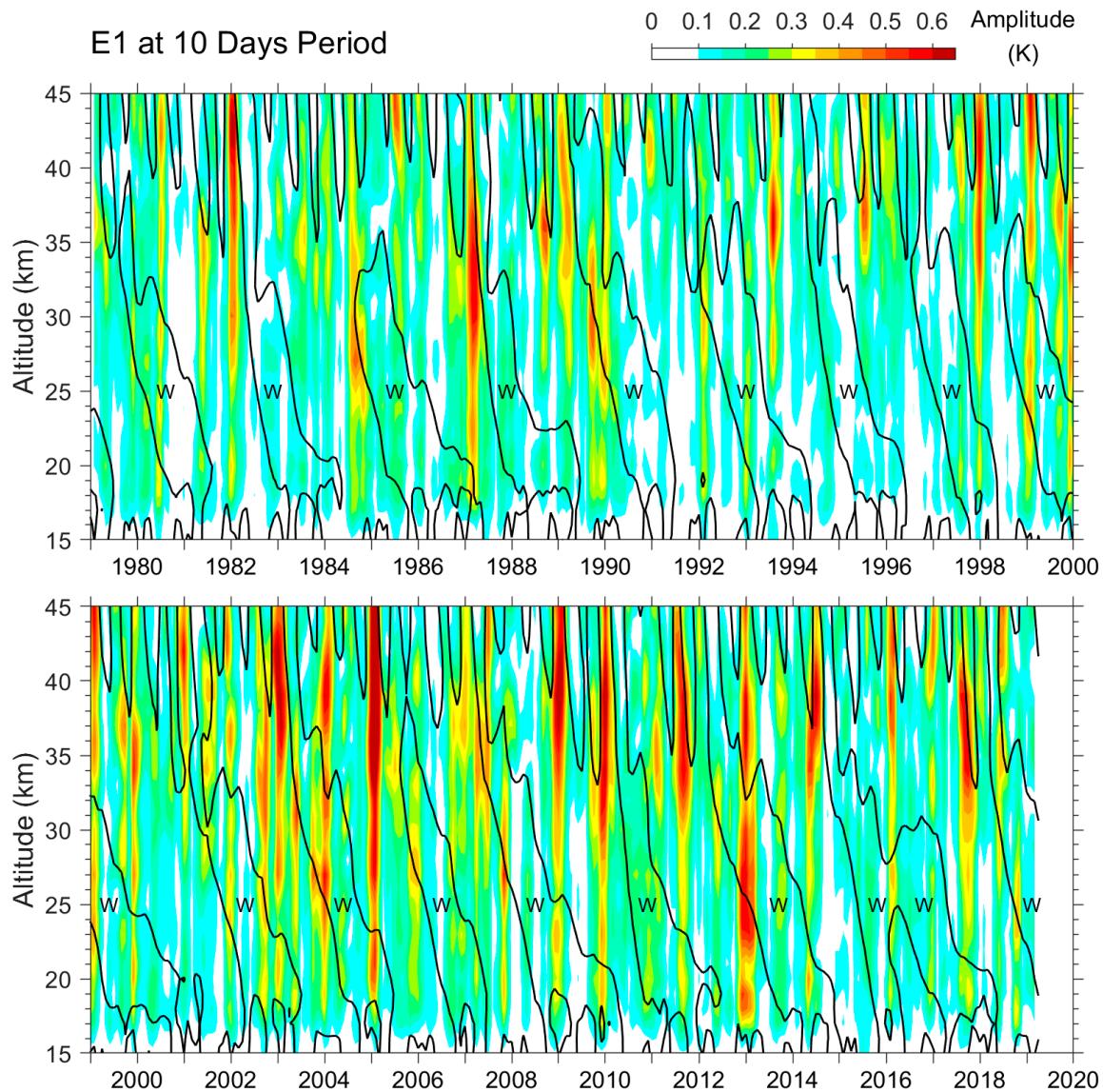


Figure S5. Same as in Figure S1, but showing the amplitude of the 10-day E1 wave.

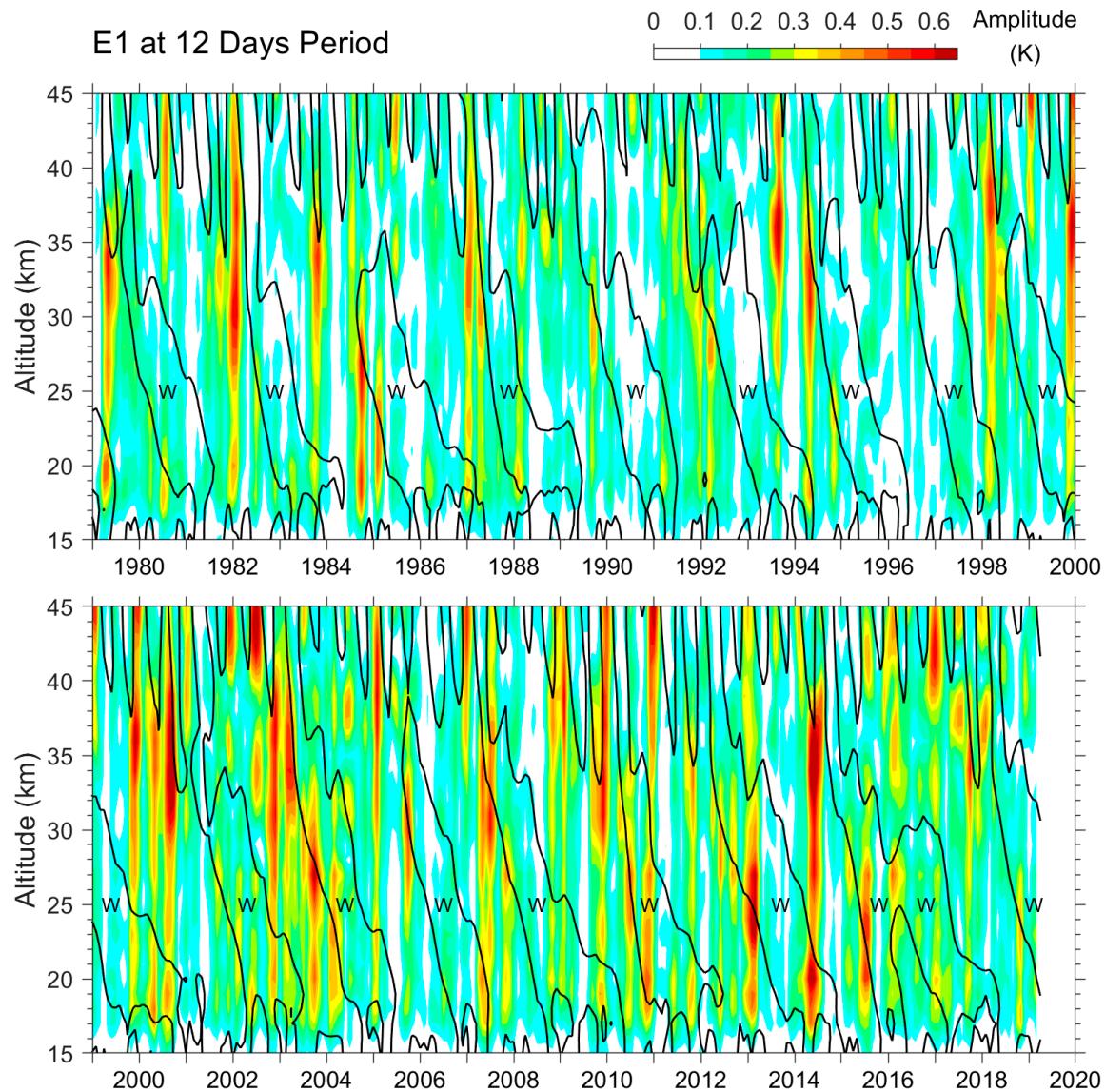


Figure S6. Same as in Figure S1, but showing the amplitude of the 12-day E1 wave.

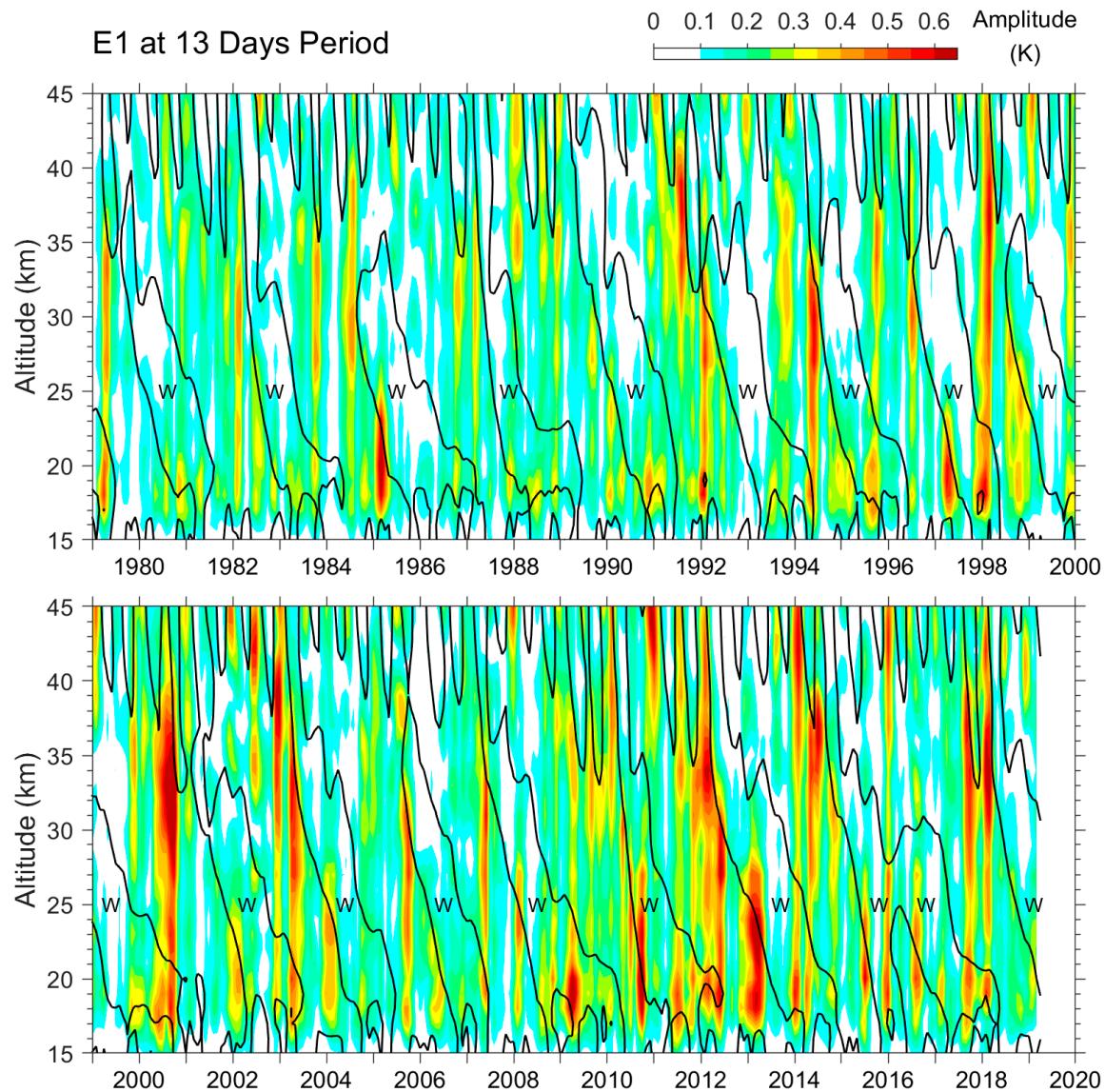


Figure S7. Same as in Figure S1, but showing the amplitude of the 13-day E1 wave.

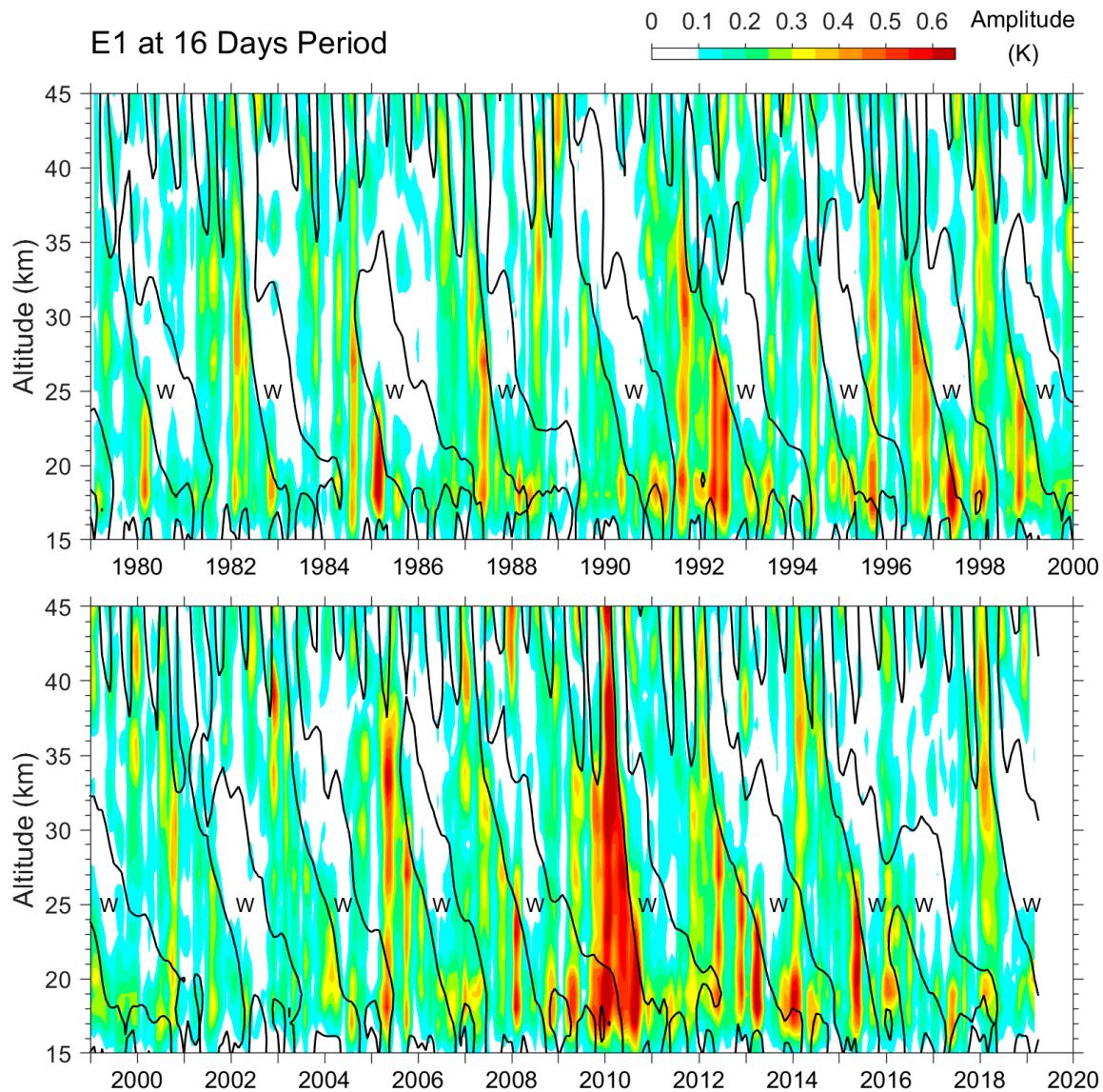


Figure S8. Same as in Figure S1, but showing the amplitude of the 16-day E1 wave.

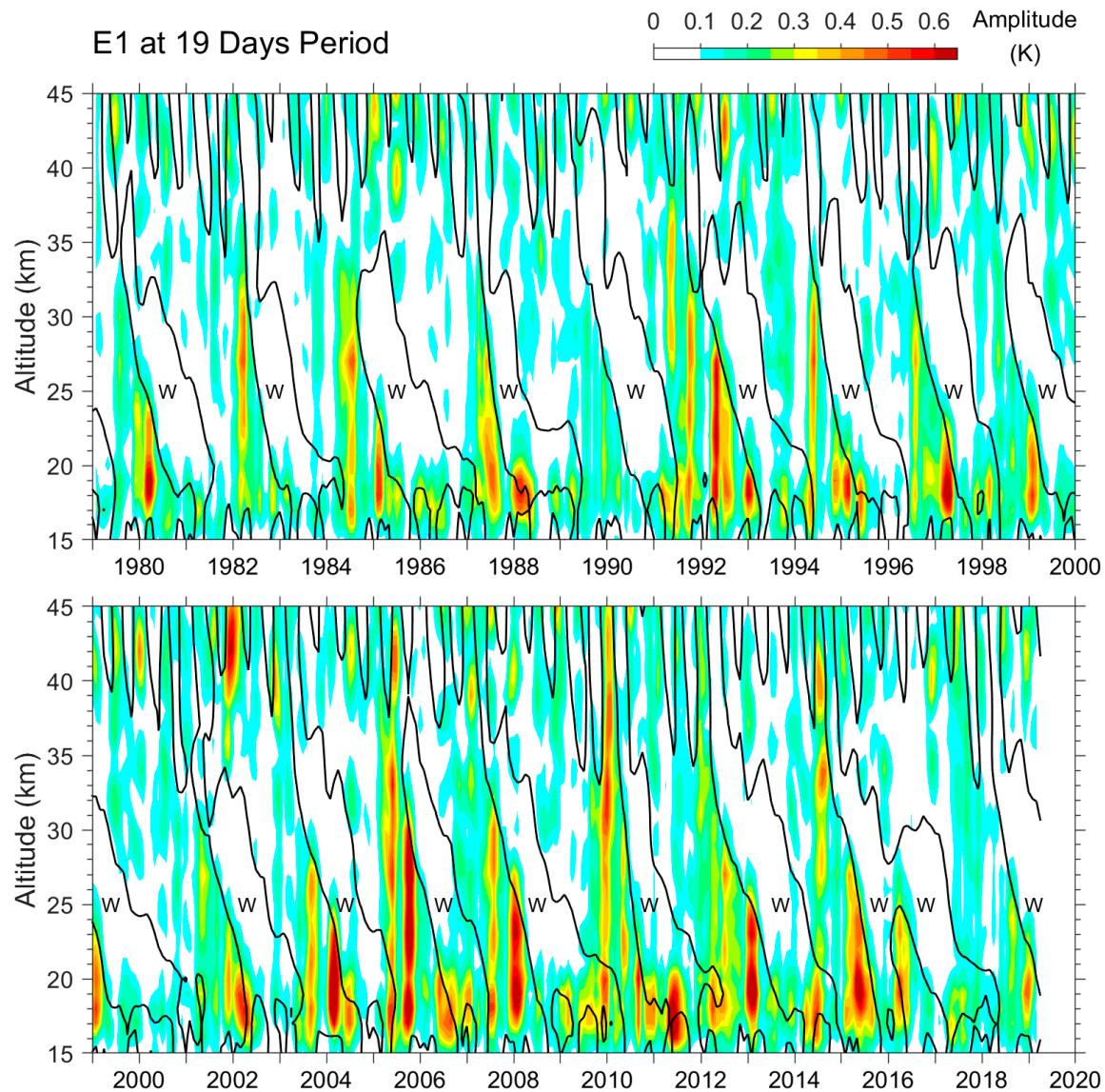


Figure S9. Same as in Figure S1, but showing the amplitude of the 19-day E1 wave.

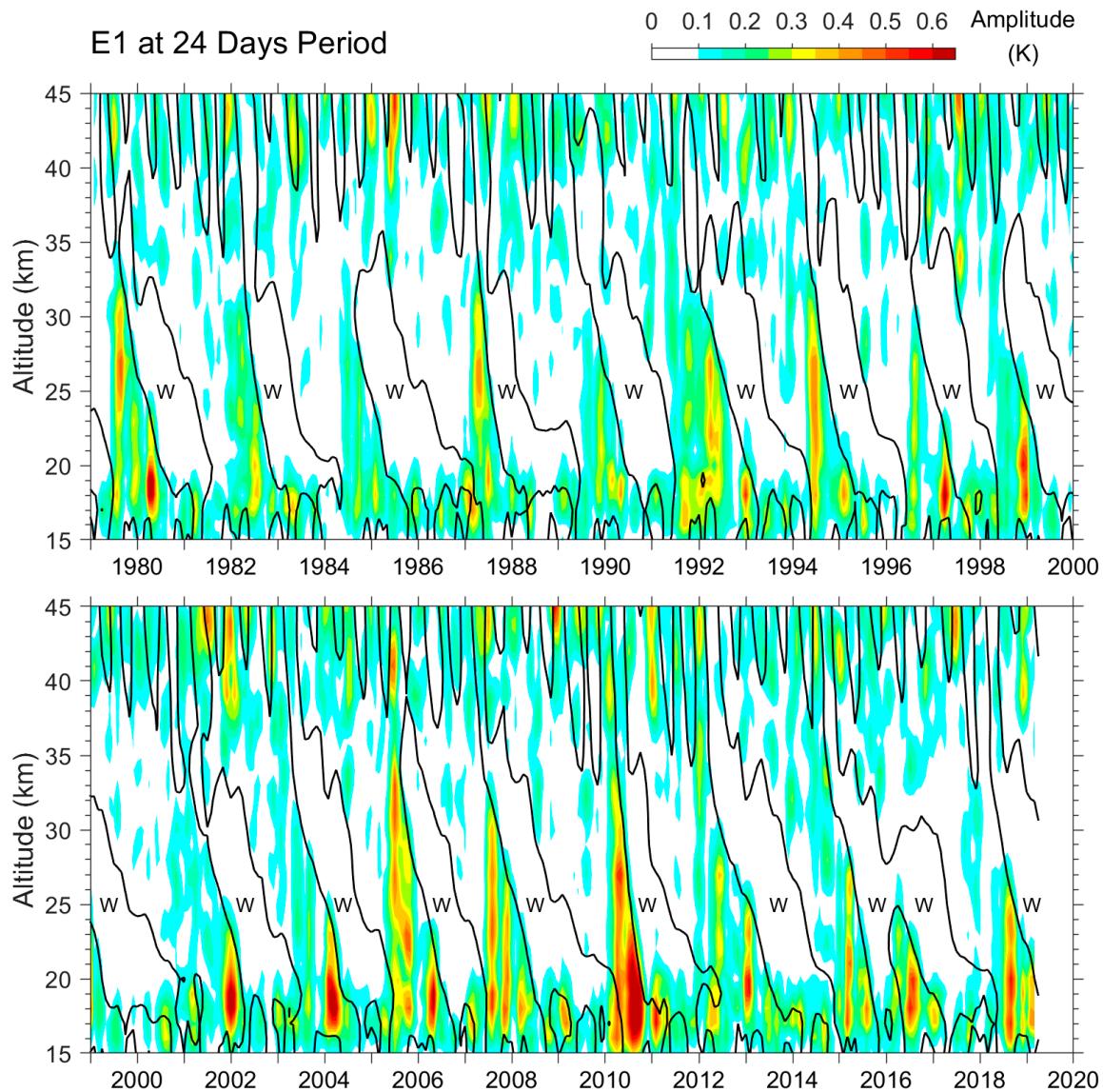


Figure S10. Same as in Figure S1, but showing the amplitude of the 24-day E1 wave.

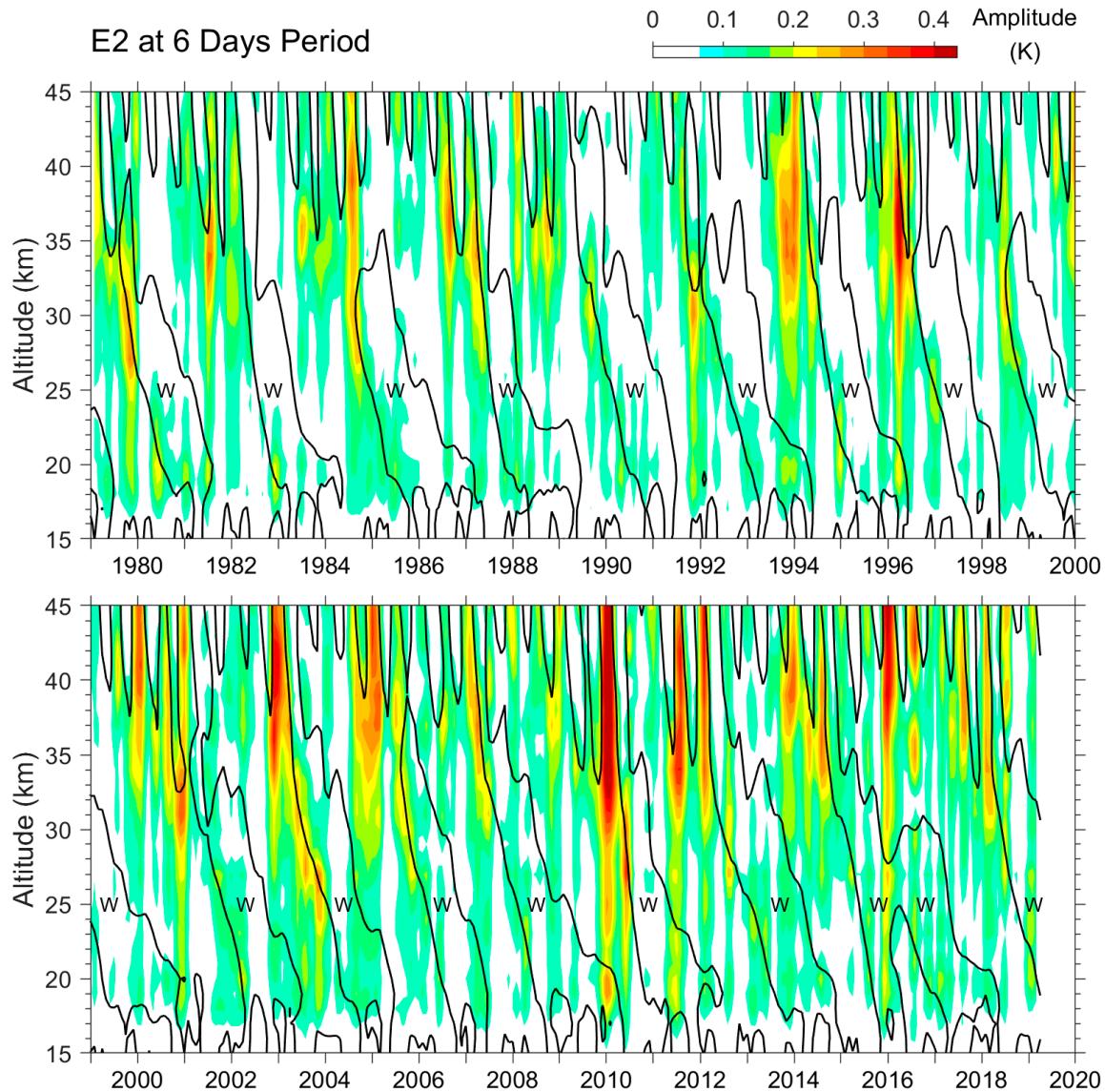


Figure S11. Same as in Figure S1, but showing the amplitude of the 6-day E2 wave.

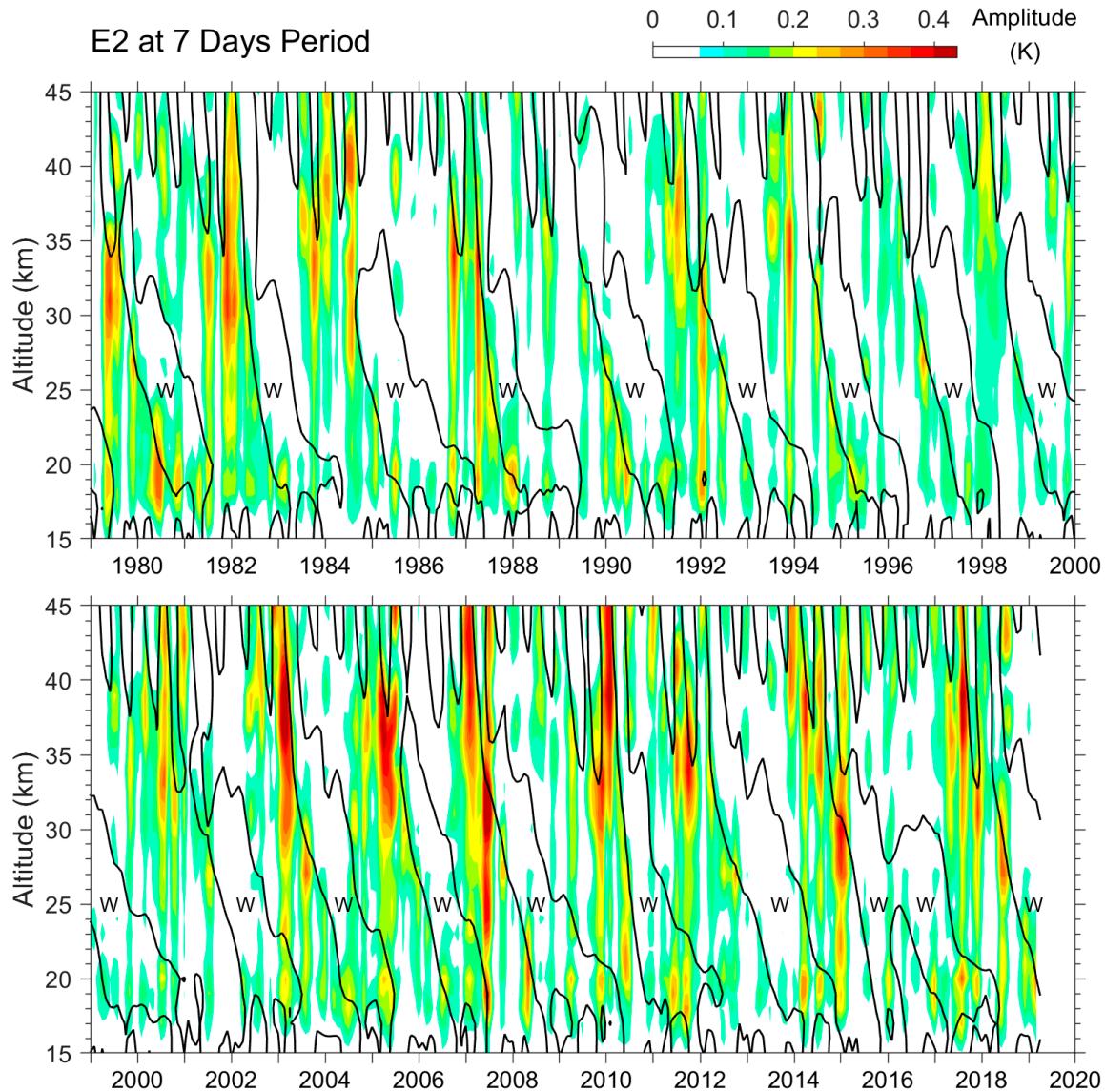


Figure S12. Same as in Figure S1, but showing the amplitude of the 7-day E2 wave.

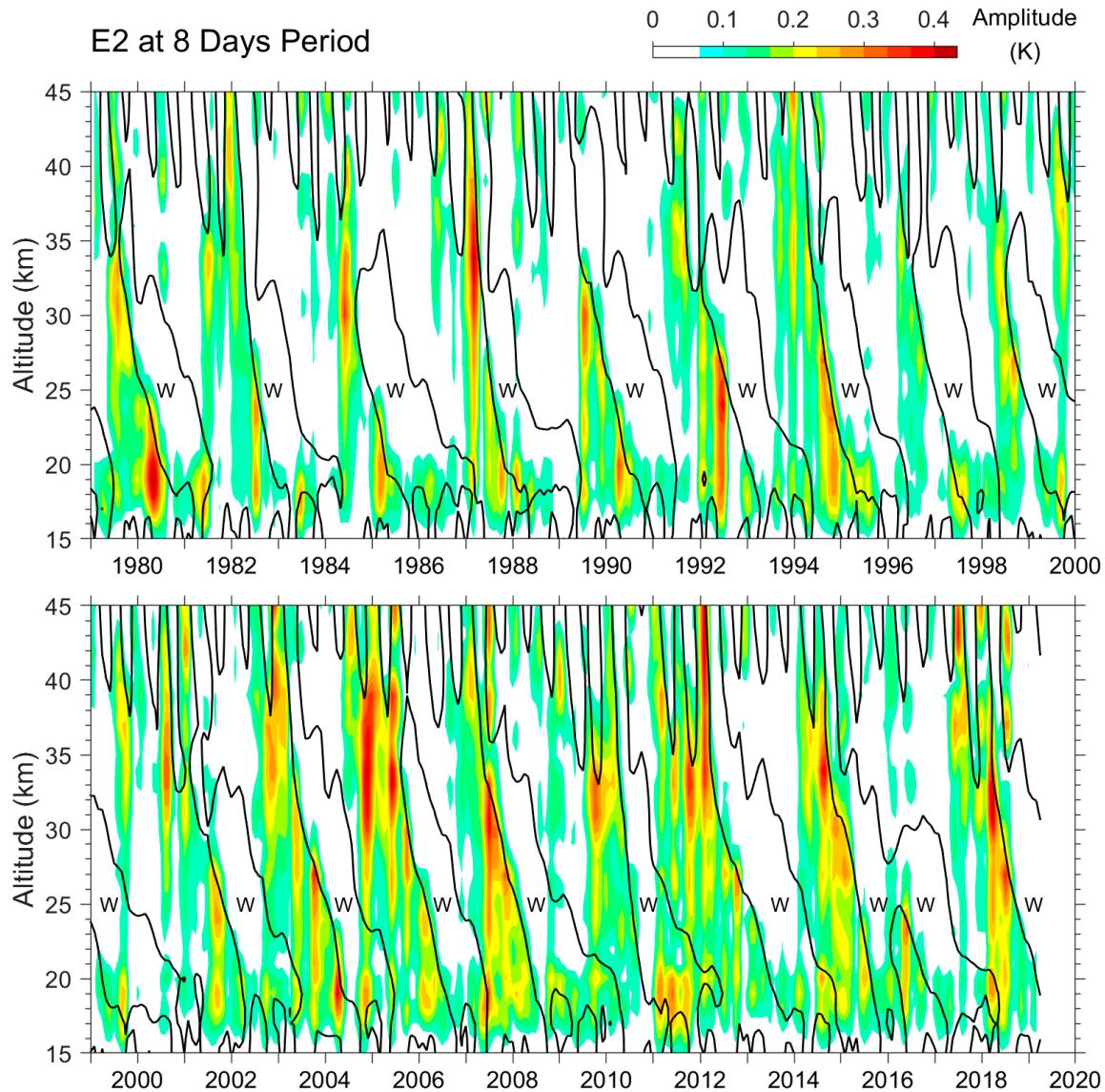


Figure S13. Same as in Figure S1, but showing the amplitude of the 8-day E2 wave.

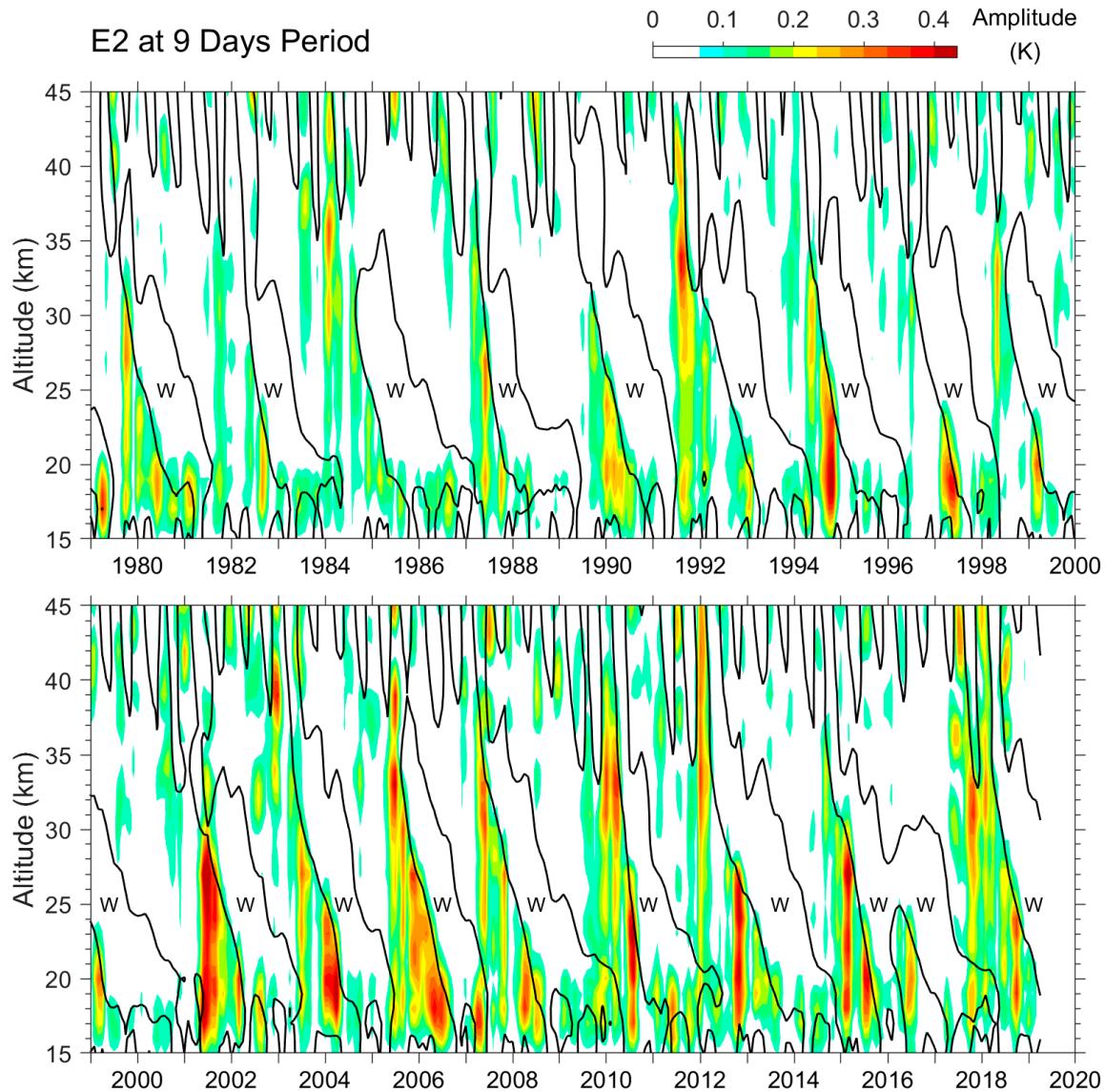


Figure S14. Same as in Figure S1, but showing the amplitude of the 9-day E2 wave.

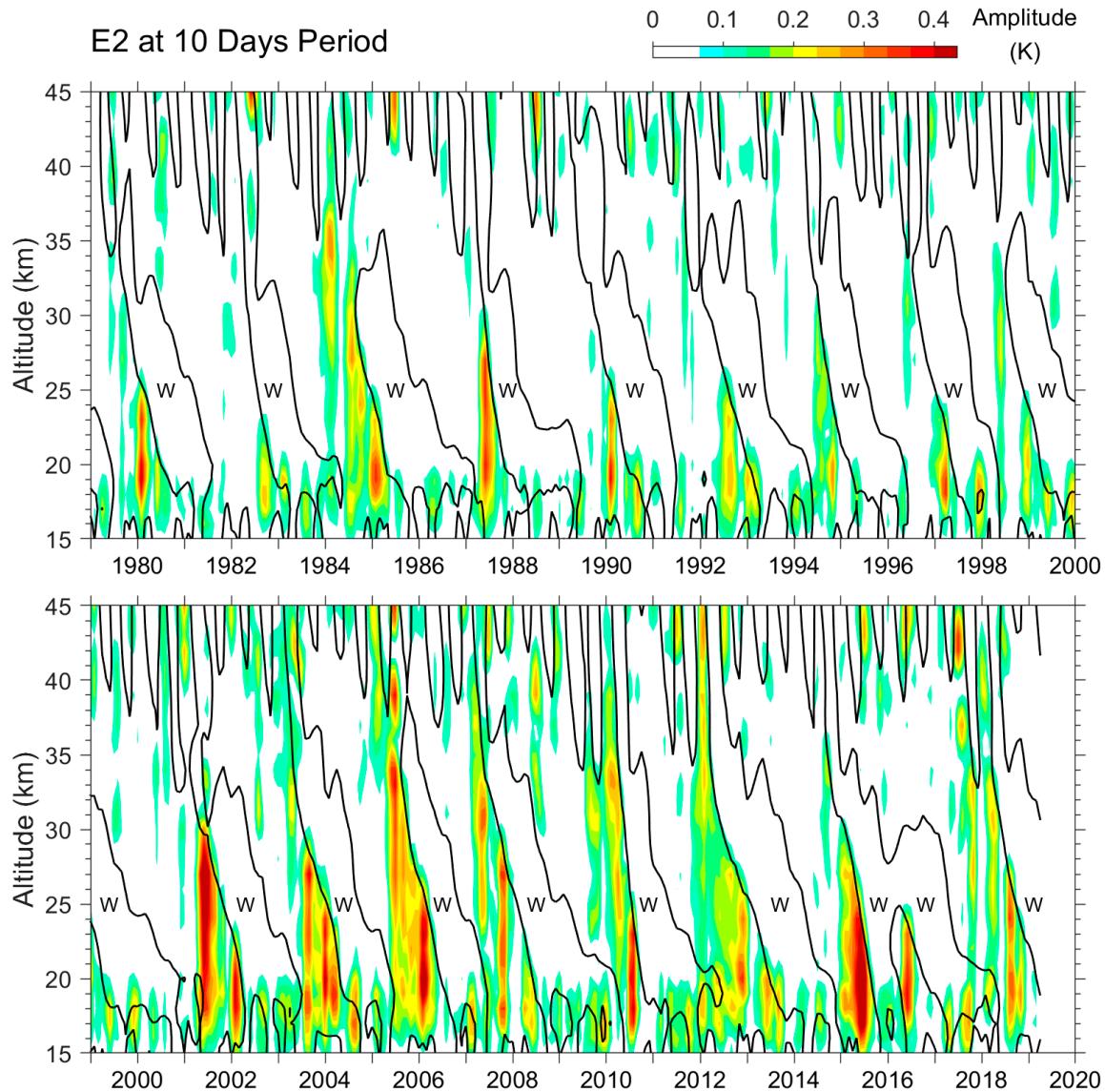


Figure S15. Same as in Figure S1, but showing the amplitude of the 10-day E2 wave.

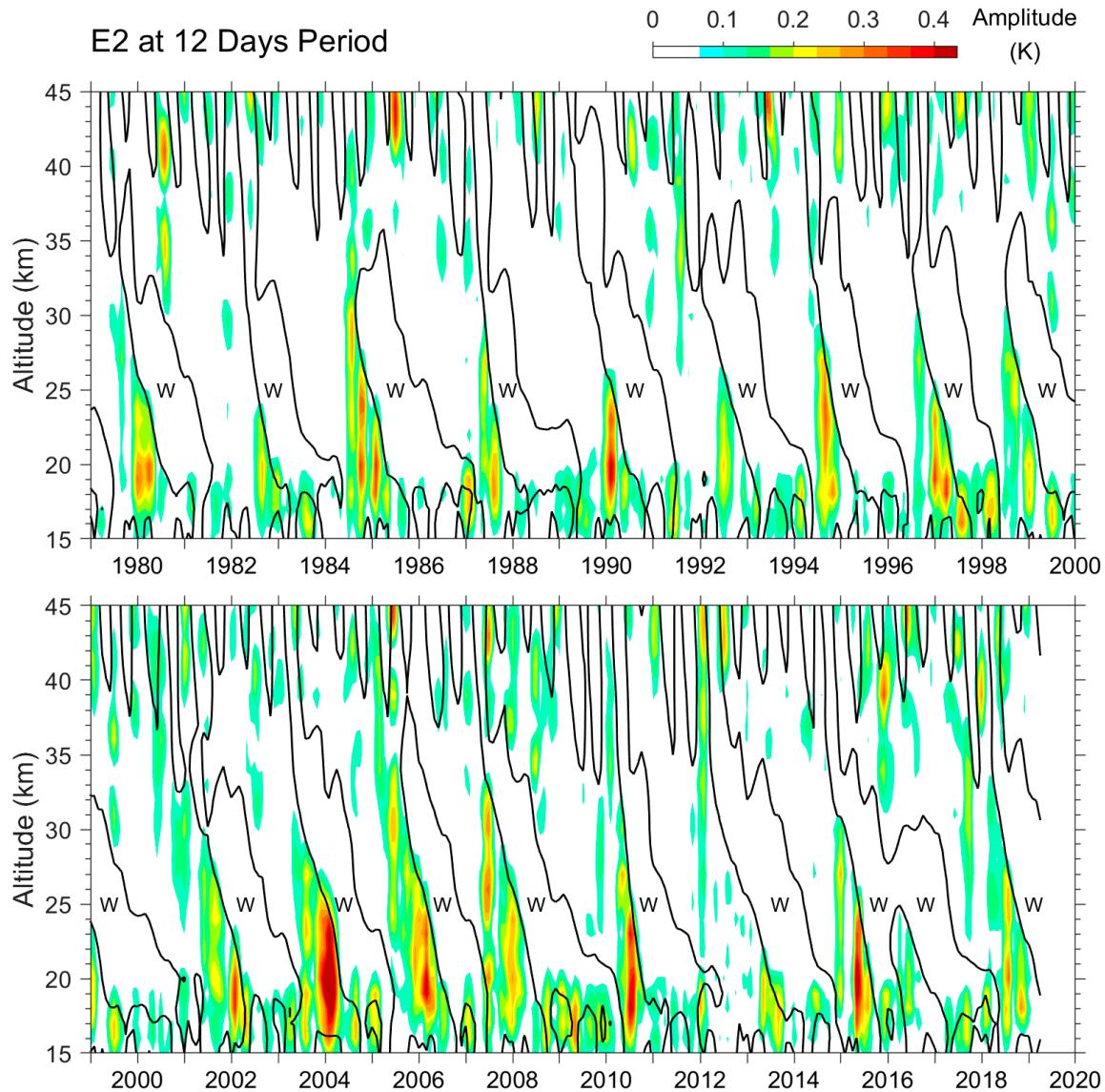


Figure S16. Same as in Figure S1, but showing the amplitude of the 12-day E2 wave.

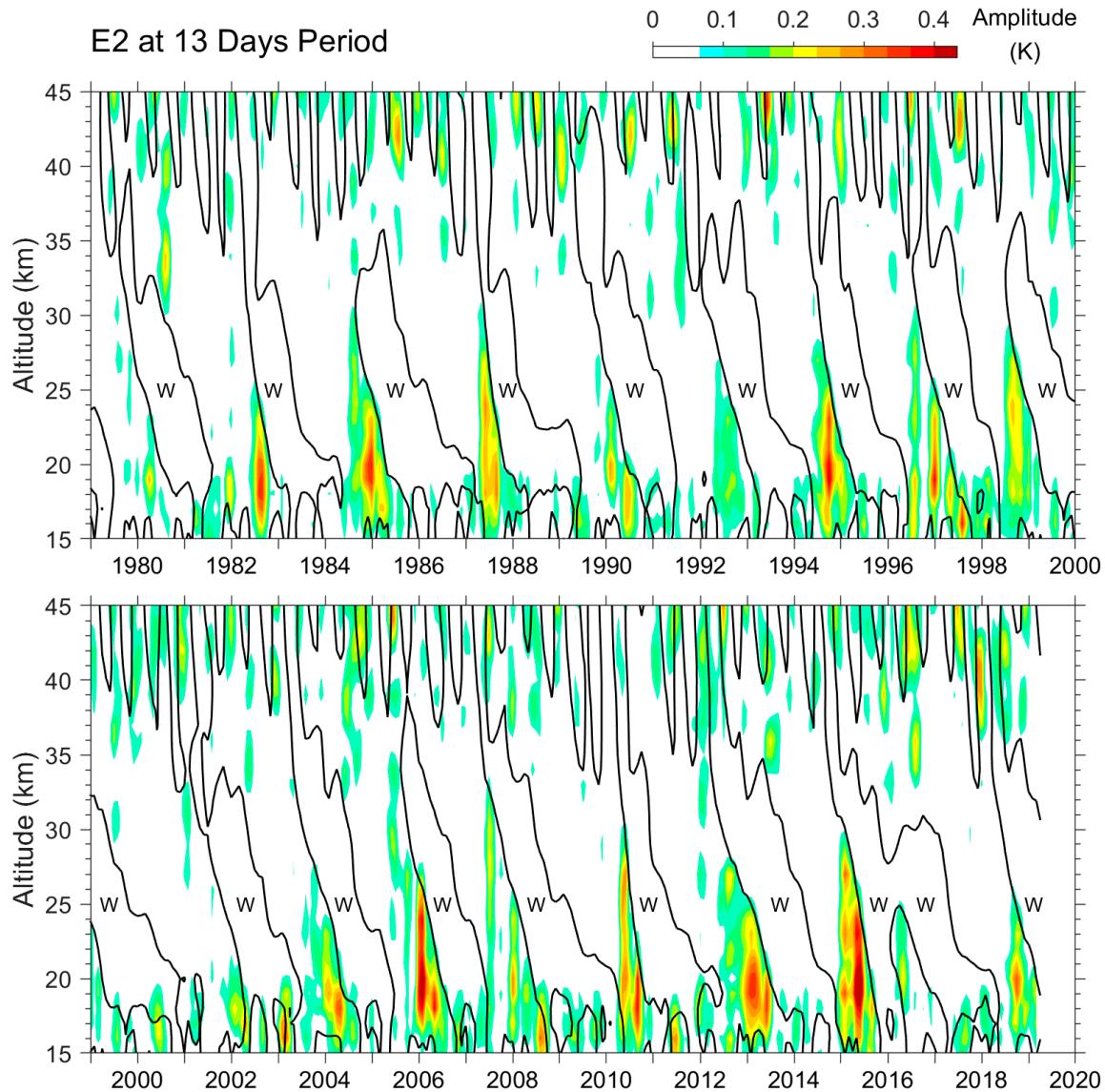


Figure S17. Same as in Figure S1, but showing the amplitude of the 13-day E2 wave.

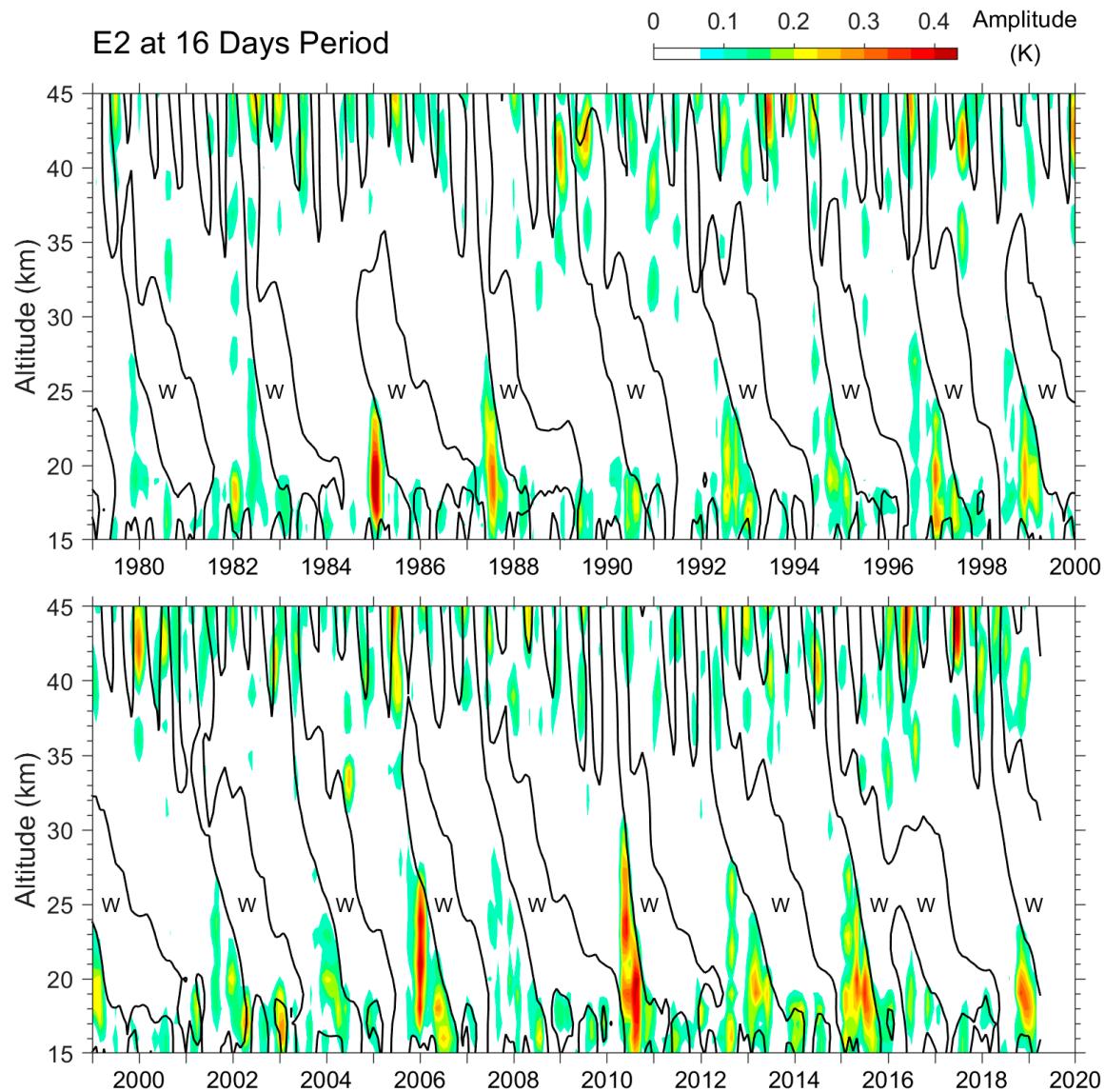


Figure S18. Same as in Figure S1, but showing the amplitude of the 16-day E2 wave.

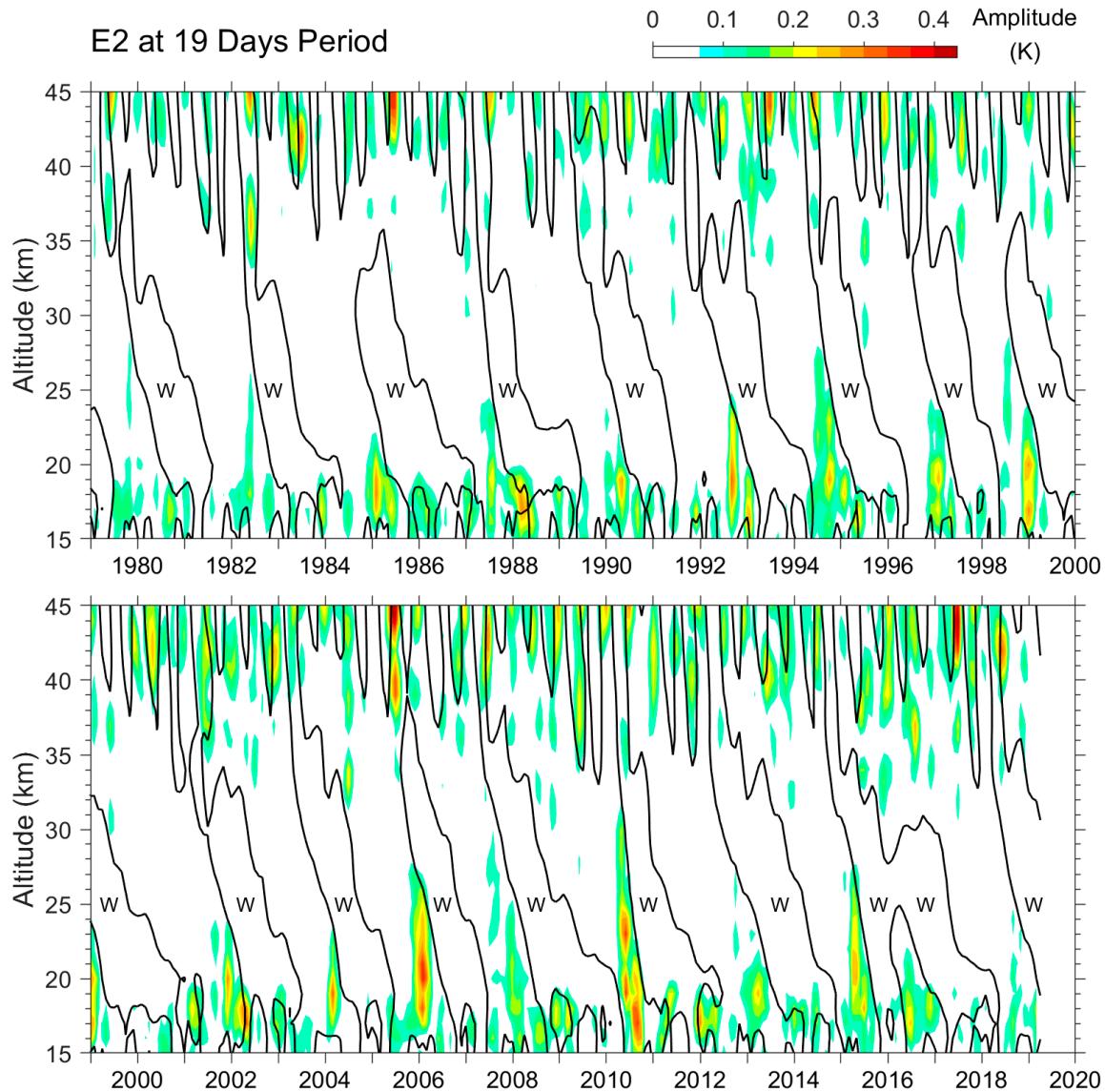


Figure S19. Same as in Figure S1, but showing the amplitude of the 19-day E2 wave.

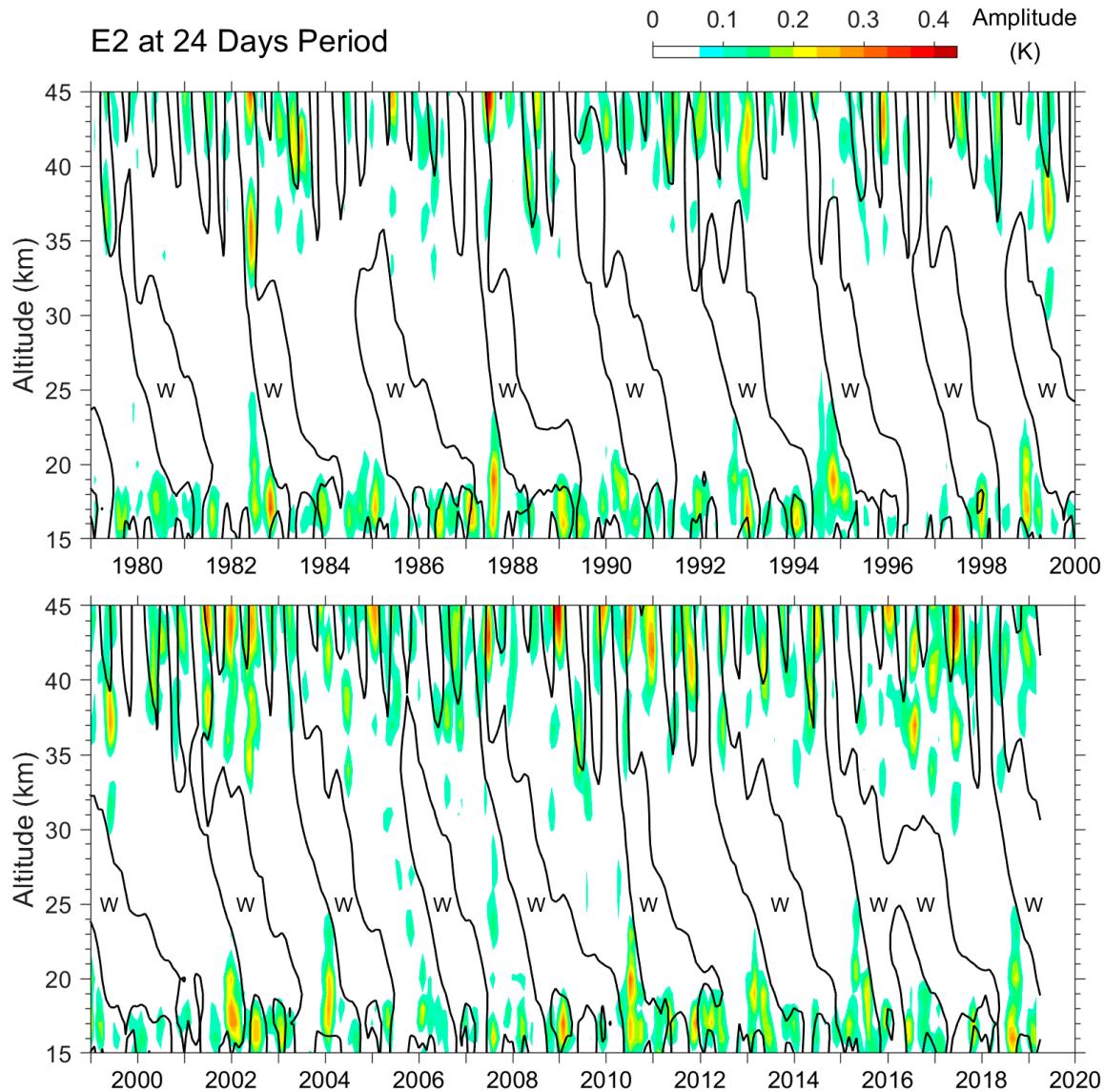


Figure S20. Same as in Figure S1, but showing the amplitude of the 24-day E2 wave.



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