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Probabilistic subseasonal precipitation forecasts using preceding atmospheric intraseasonal signals in a Bayesian perspective

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Supplement

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Figure S35 compares the correlation coefficient between ISO signals of U850 and precipitation for the whole period of 1979~2016 and the cross-validated period of 1980~2016.

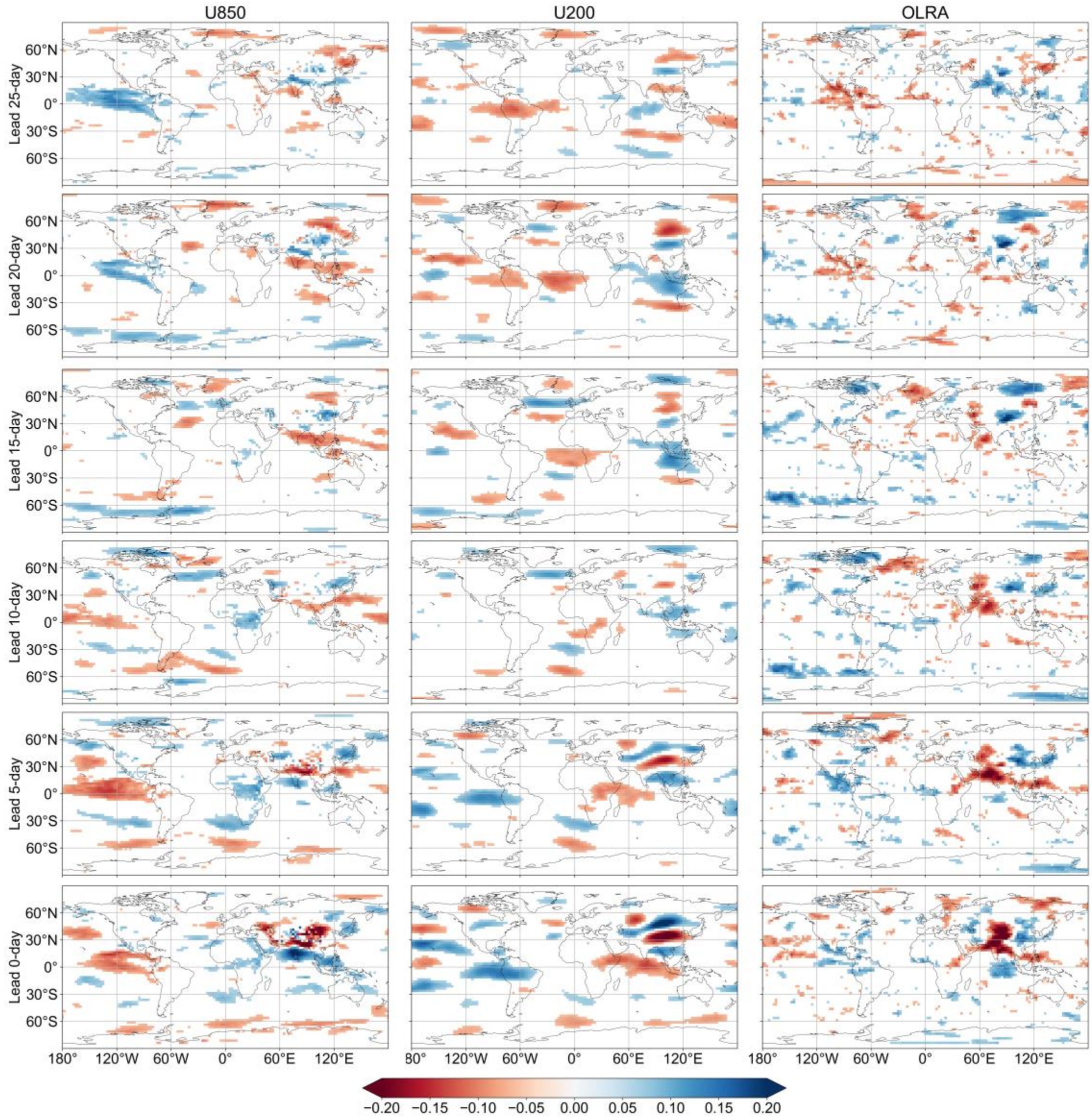

Figure S1. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 2 (Inland Rivers in northern Tibet) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

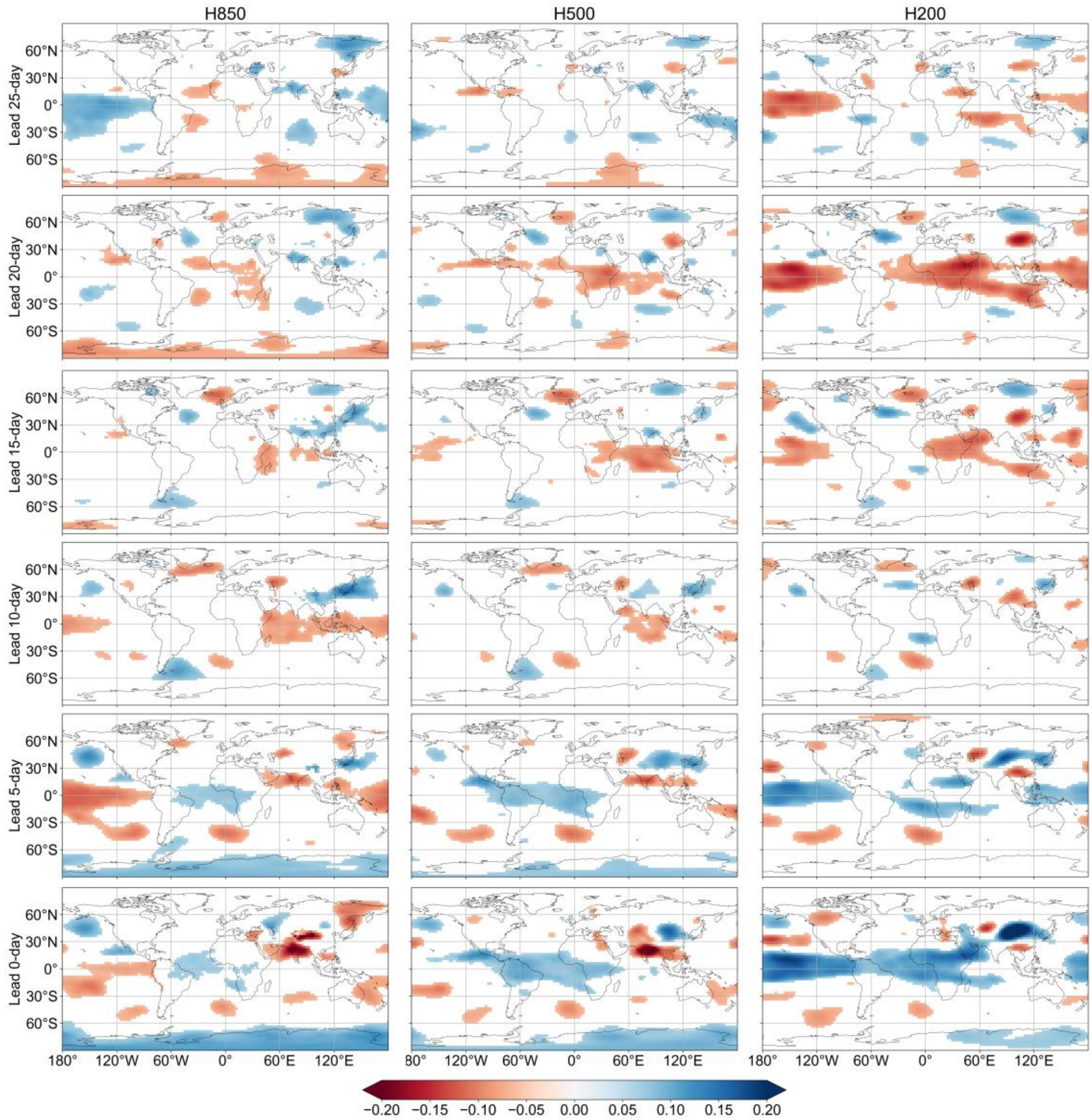

Figure S2. Same as Figure S1, but for H850, H500, and H200.

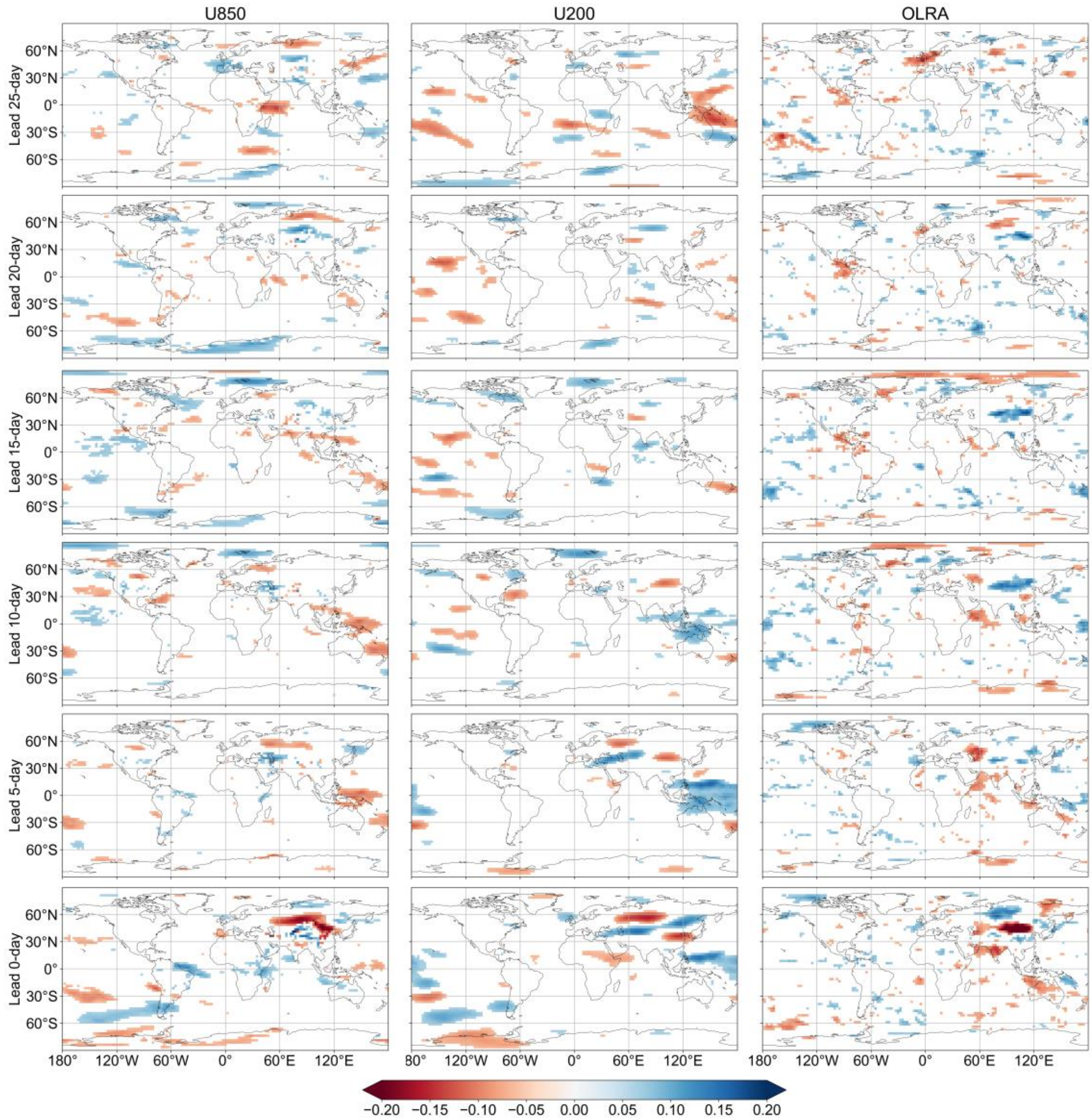

Figure S3. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 3 (Inland rivers in Inner Mongolia) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

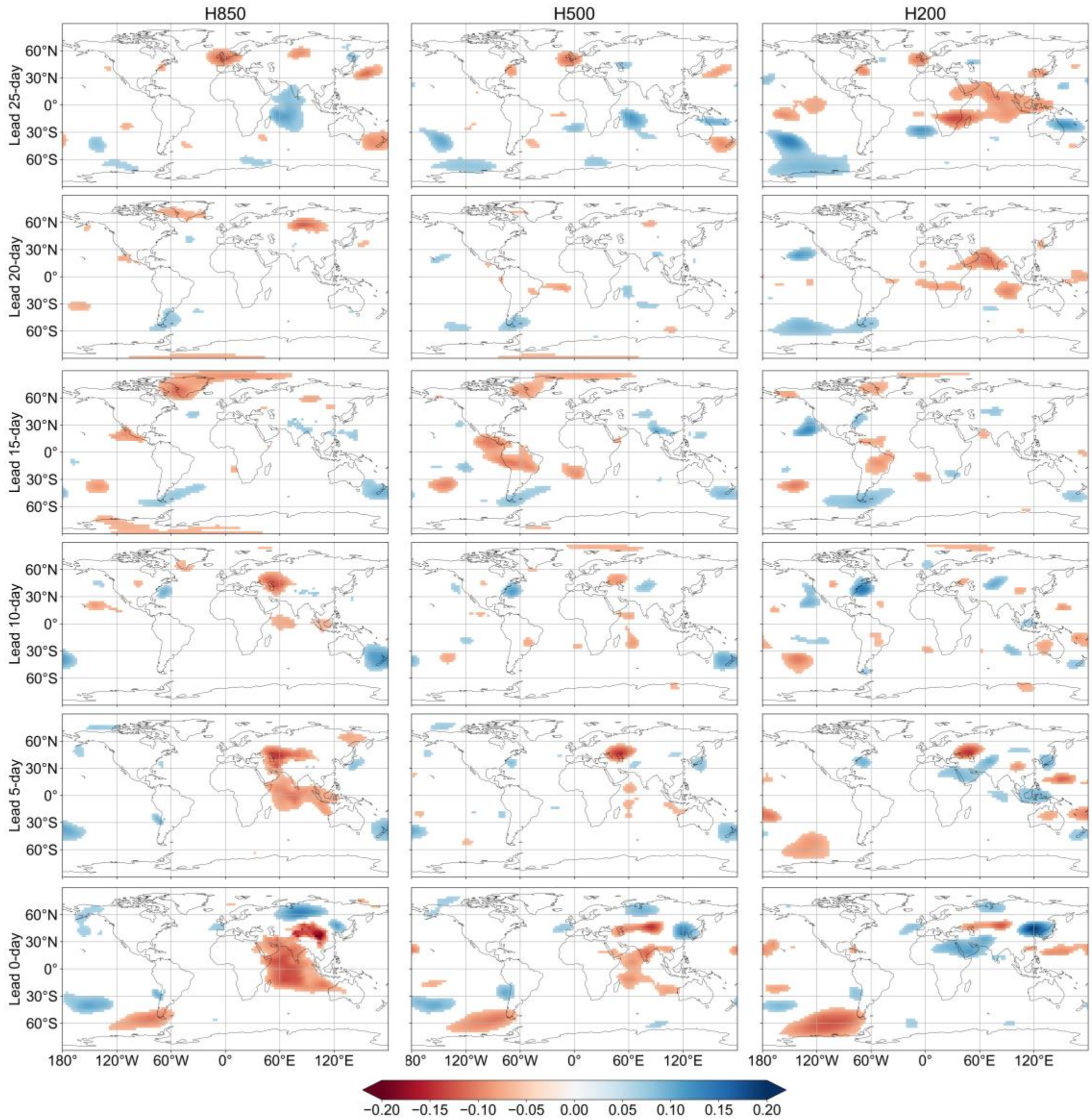

Figure S4. Same as Figure S3, but for H850, H500, and H200.

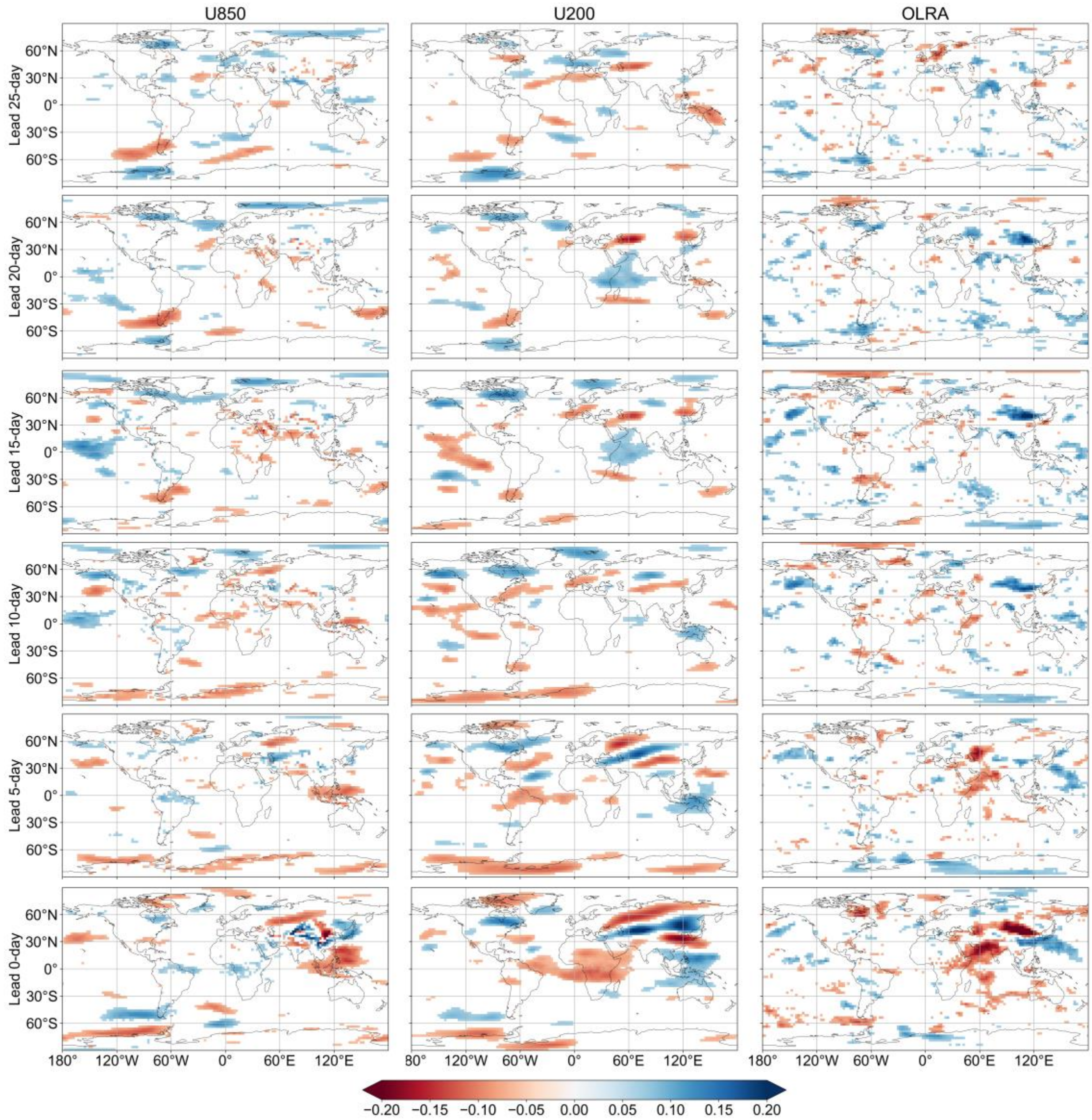

Figure S5. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 4 (Yellow River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

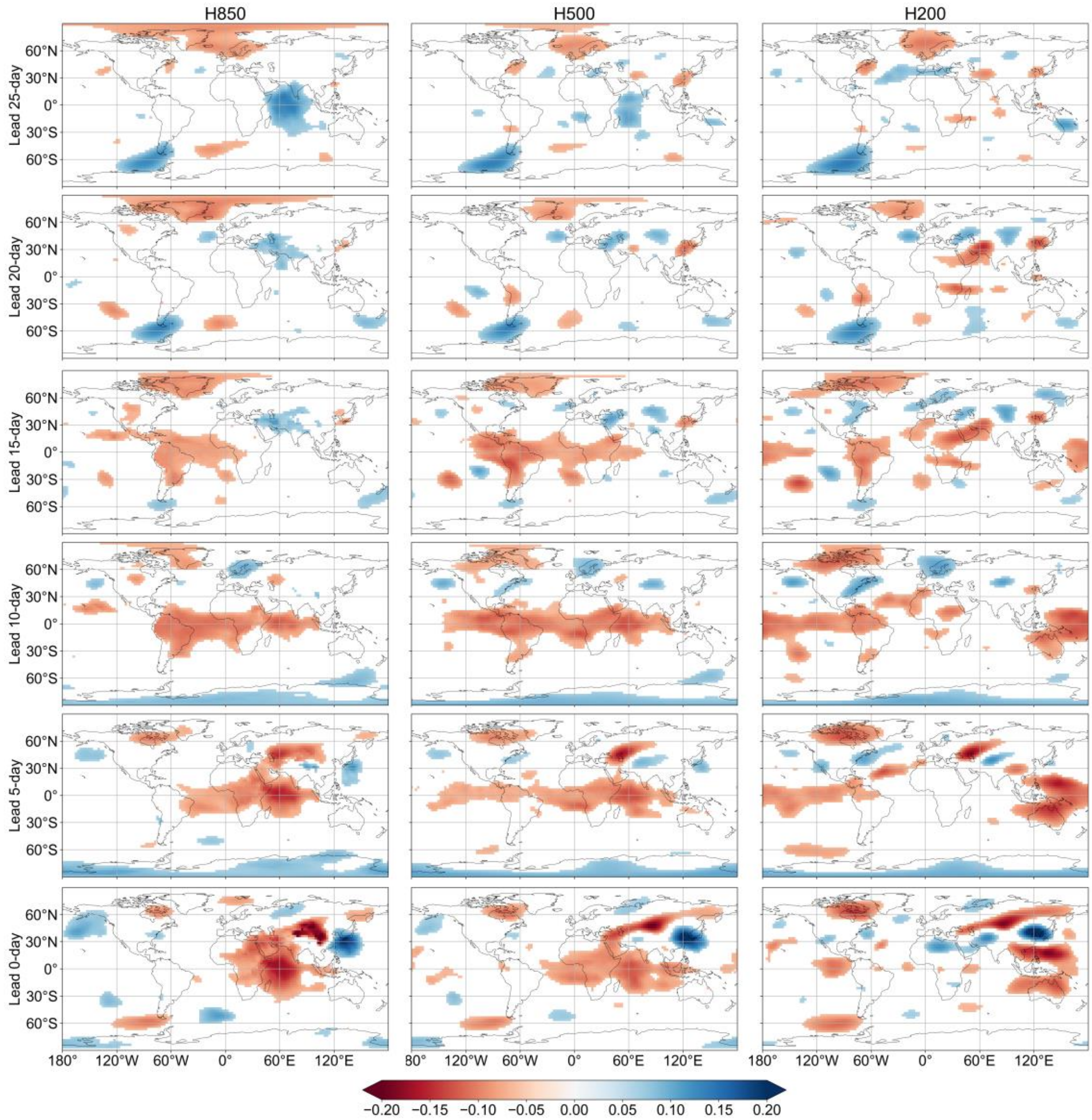

Figure S6. Same as Figure S5, but for H850, H500, and H200.

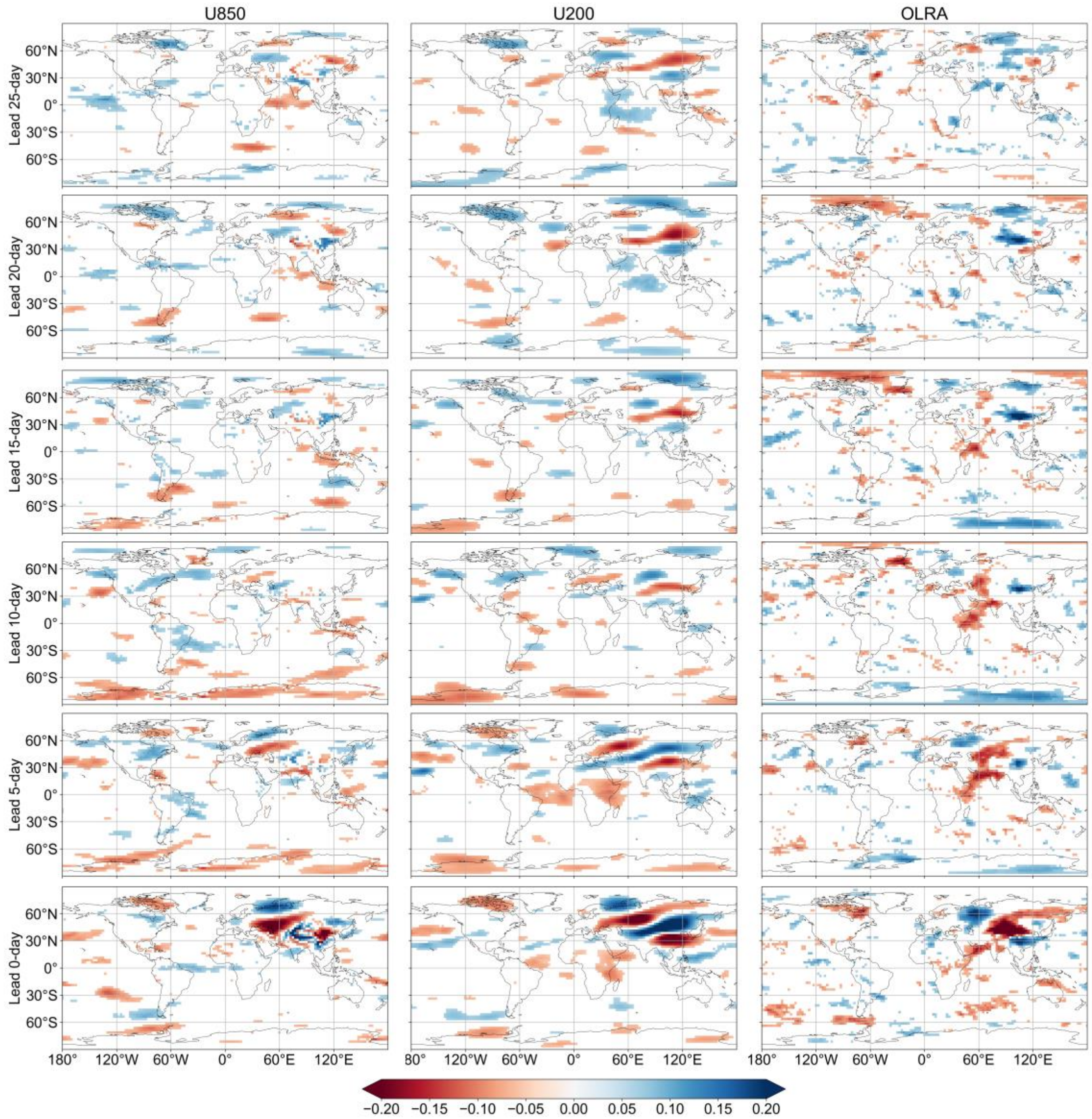

Figure S7. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 5 (Upper Yellow River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

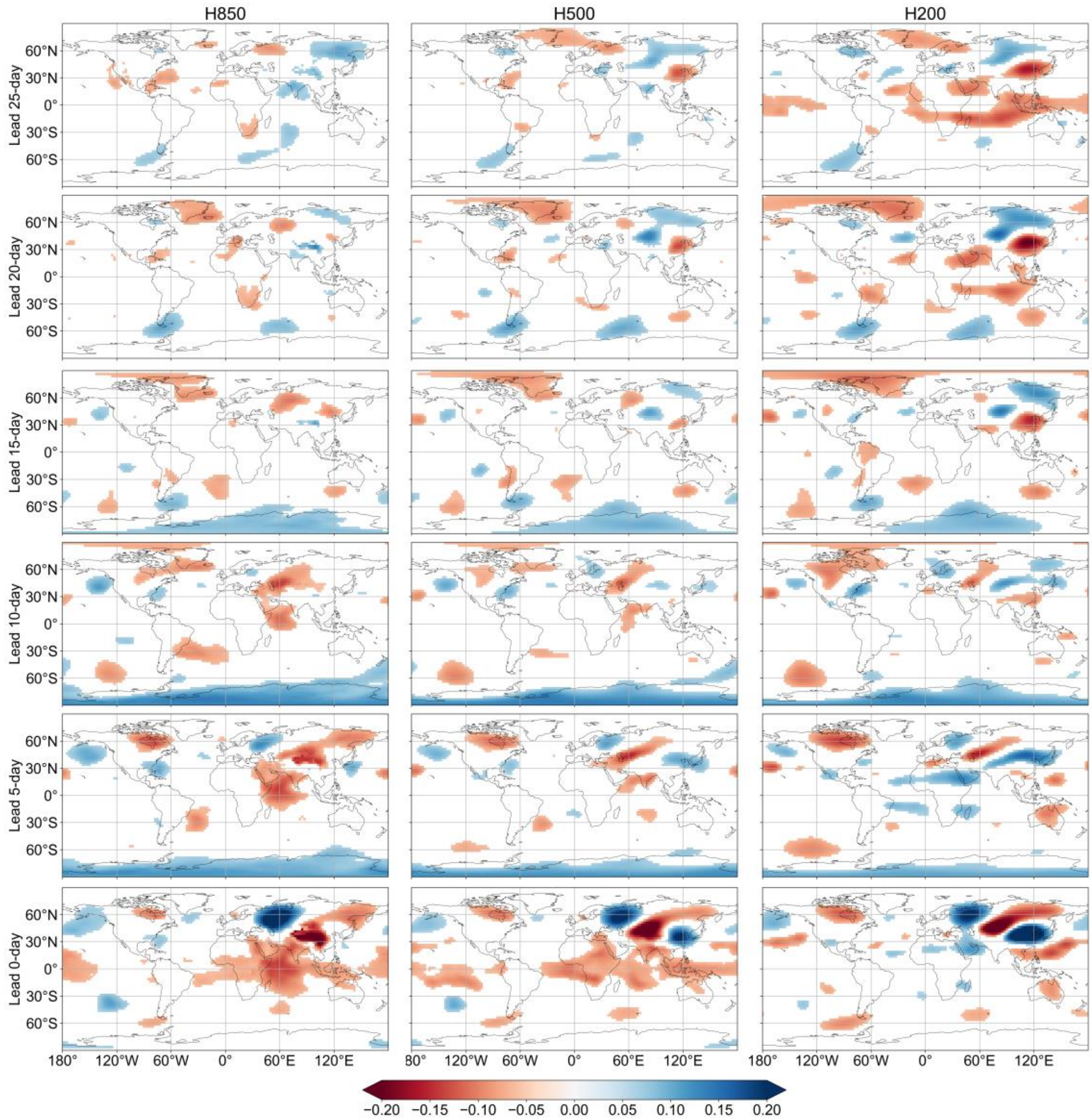

Figure S8. Same as Figure S7, but for H850, H500, and H200.

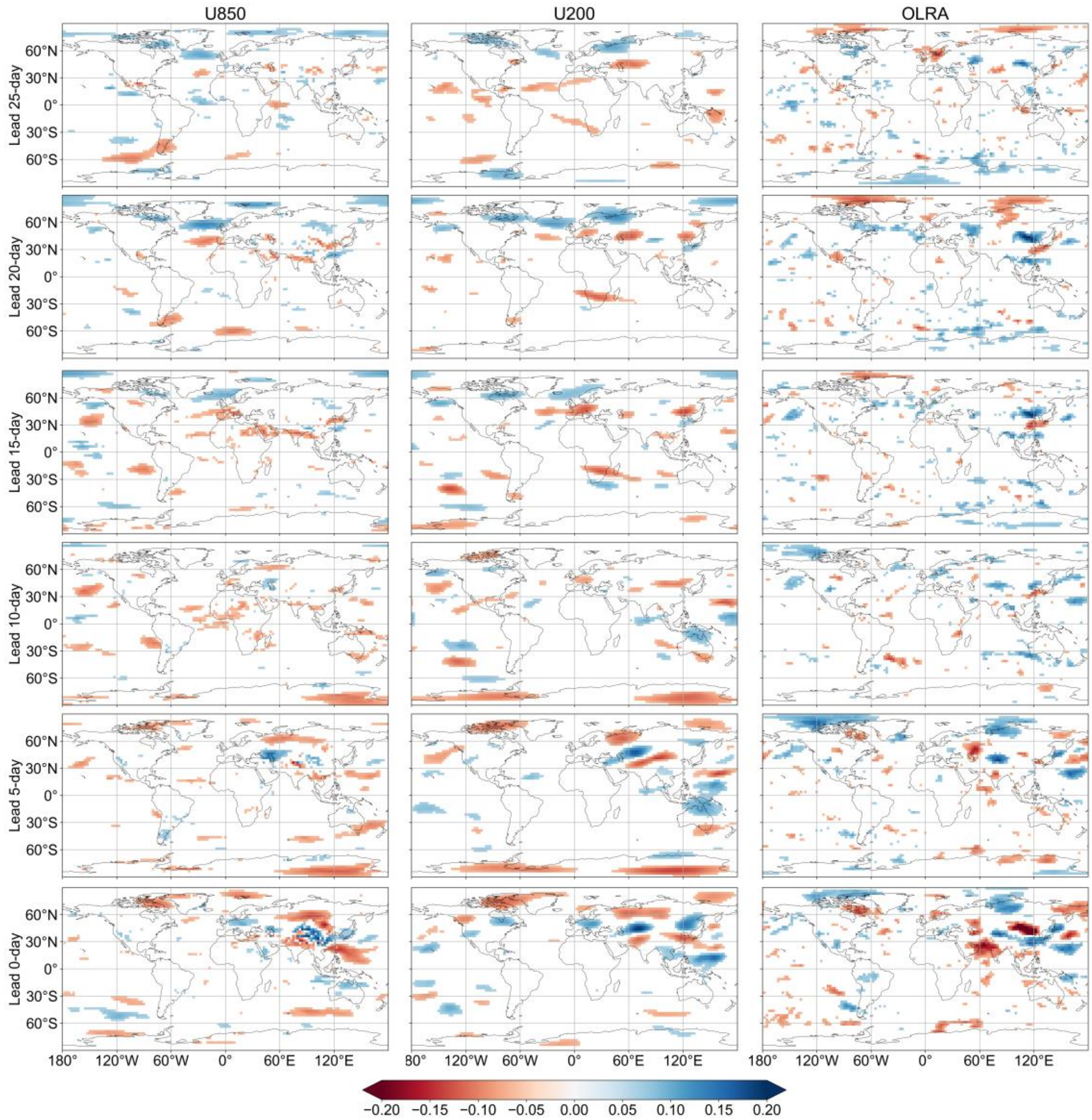

Figure S9. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 6 (Hai River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

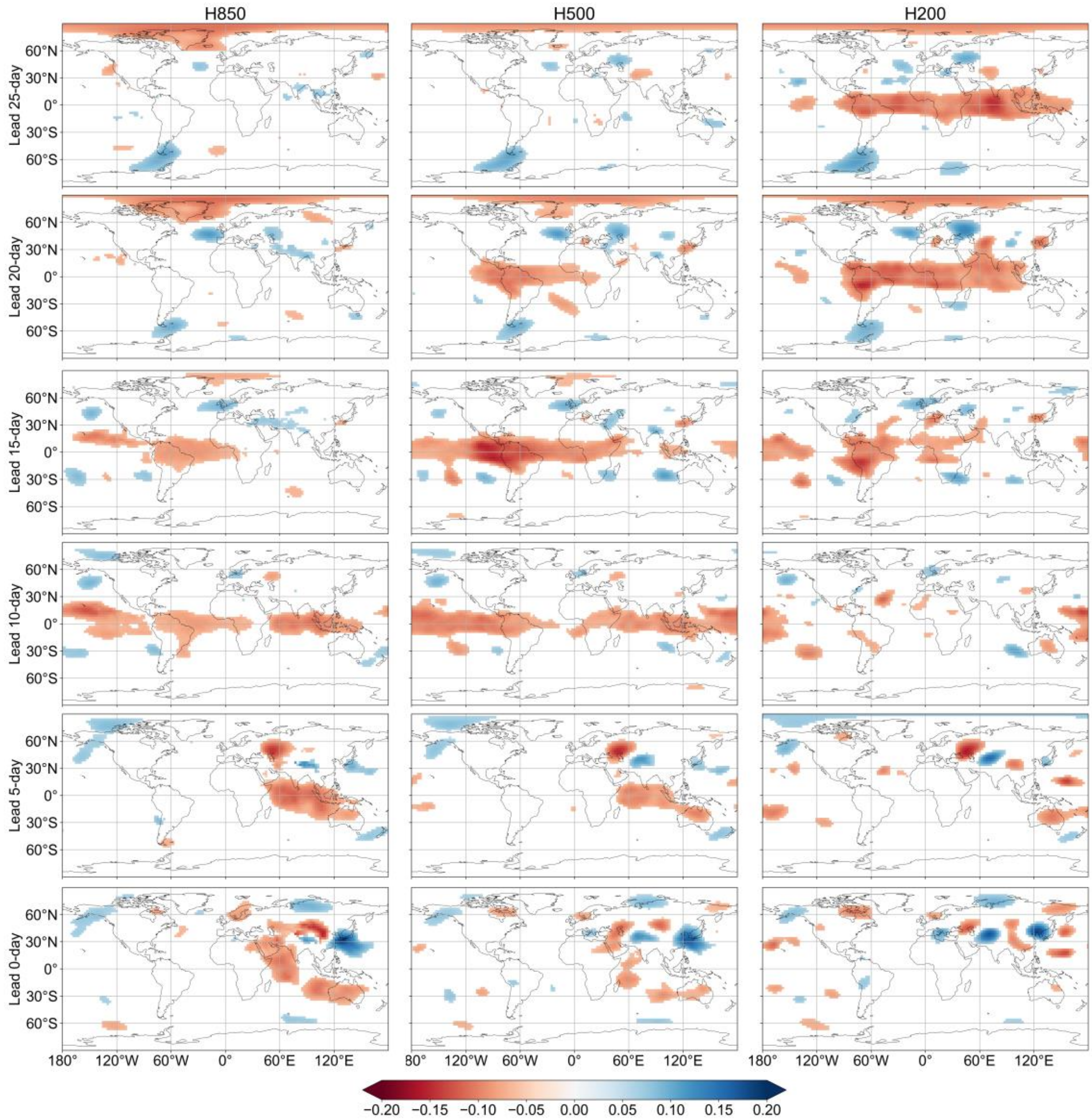

Figure S19. Same as Figure S9, but for H850, H500, and H200.

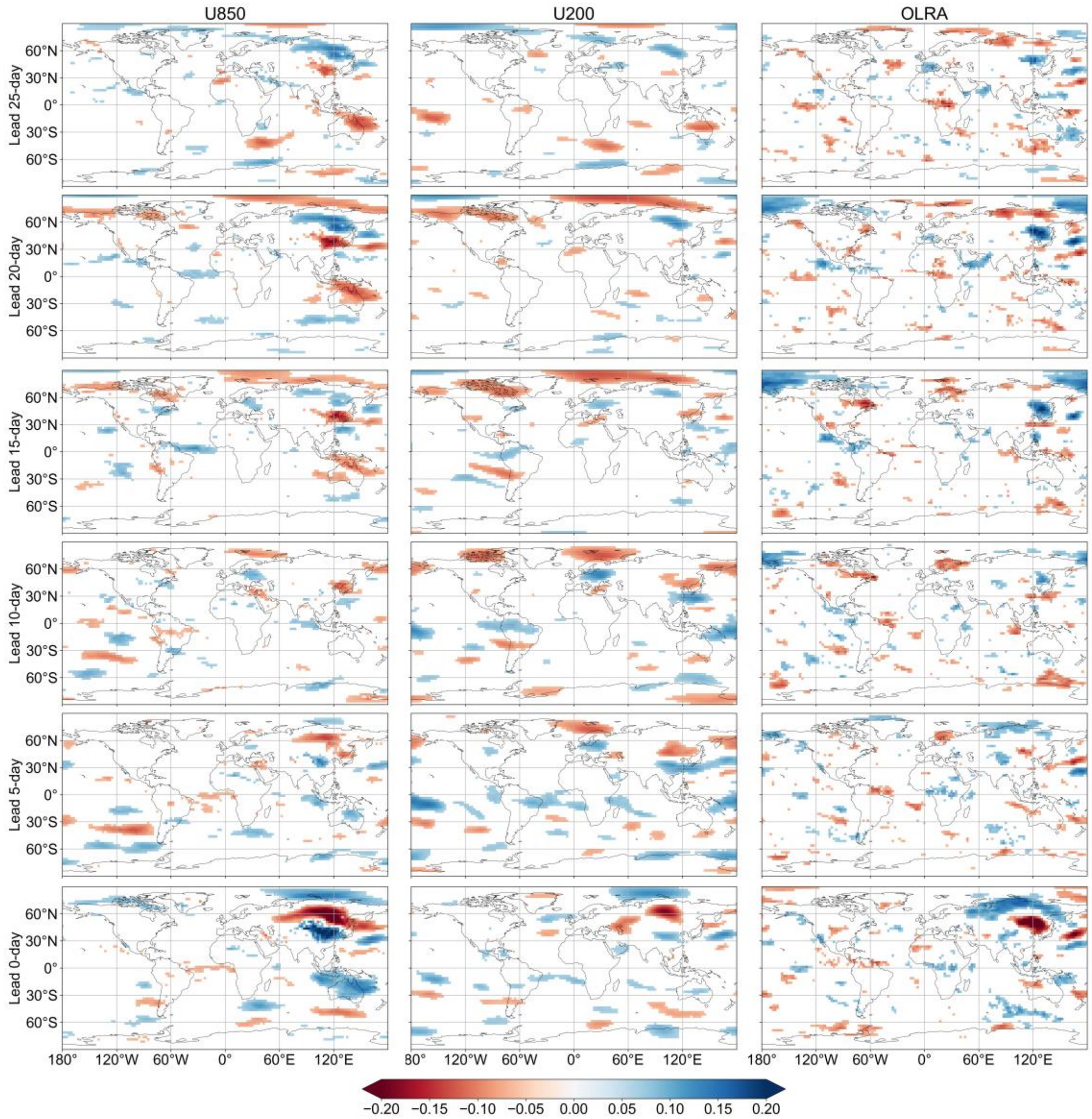

Figure S11. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 7 (Songhua River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

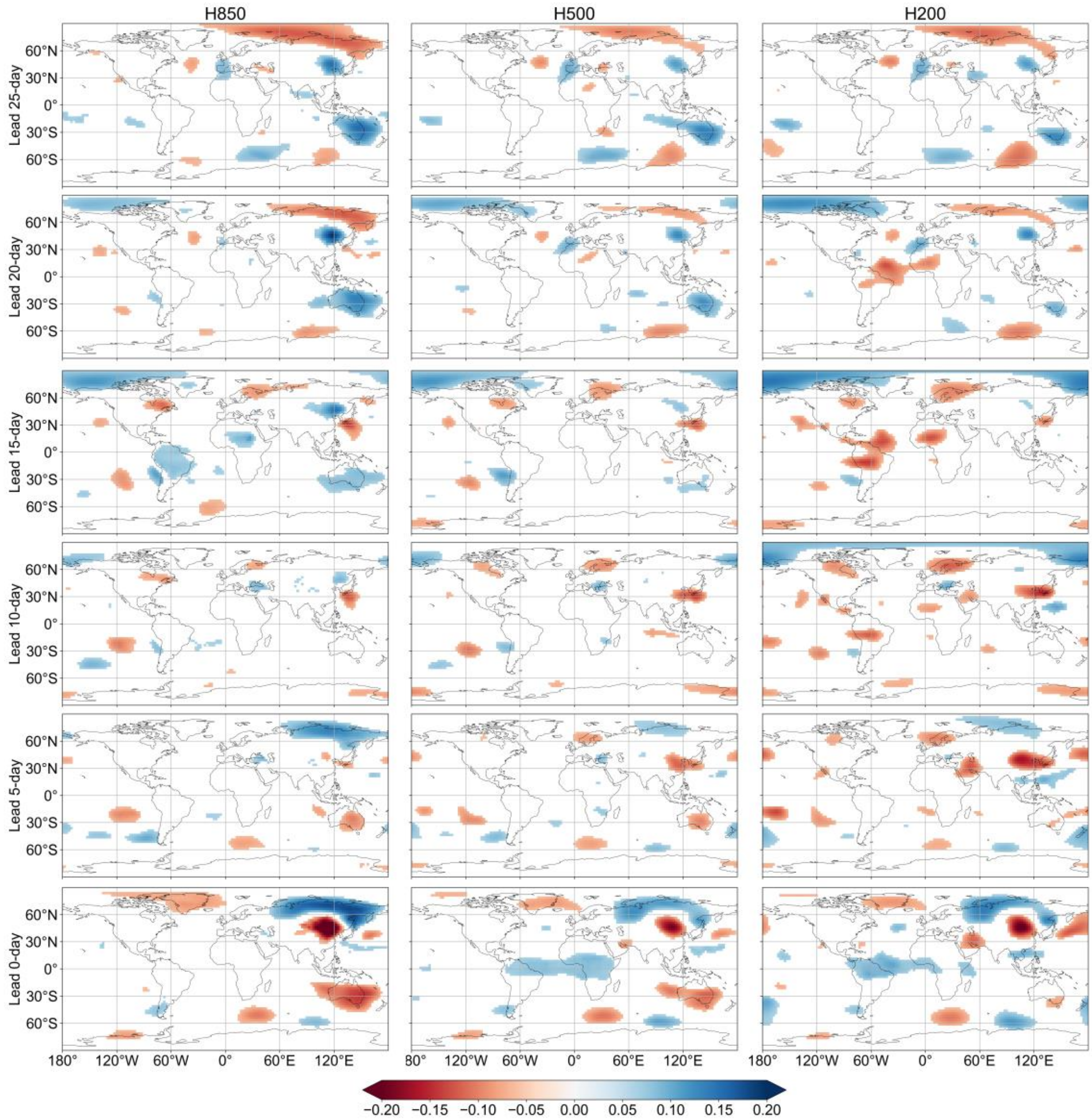

Figure S12. Same as Figure S11, but for H850, H500, and H200.

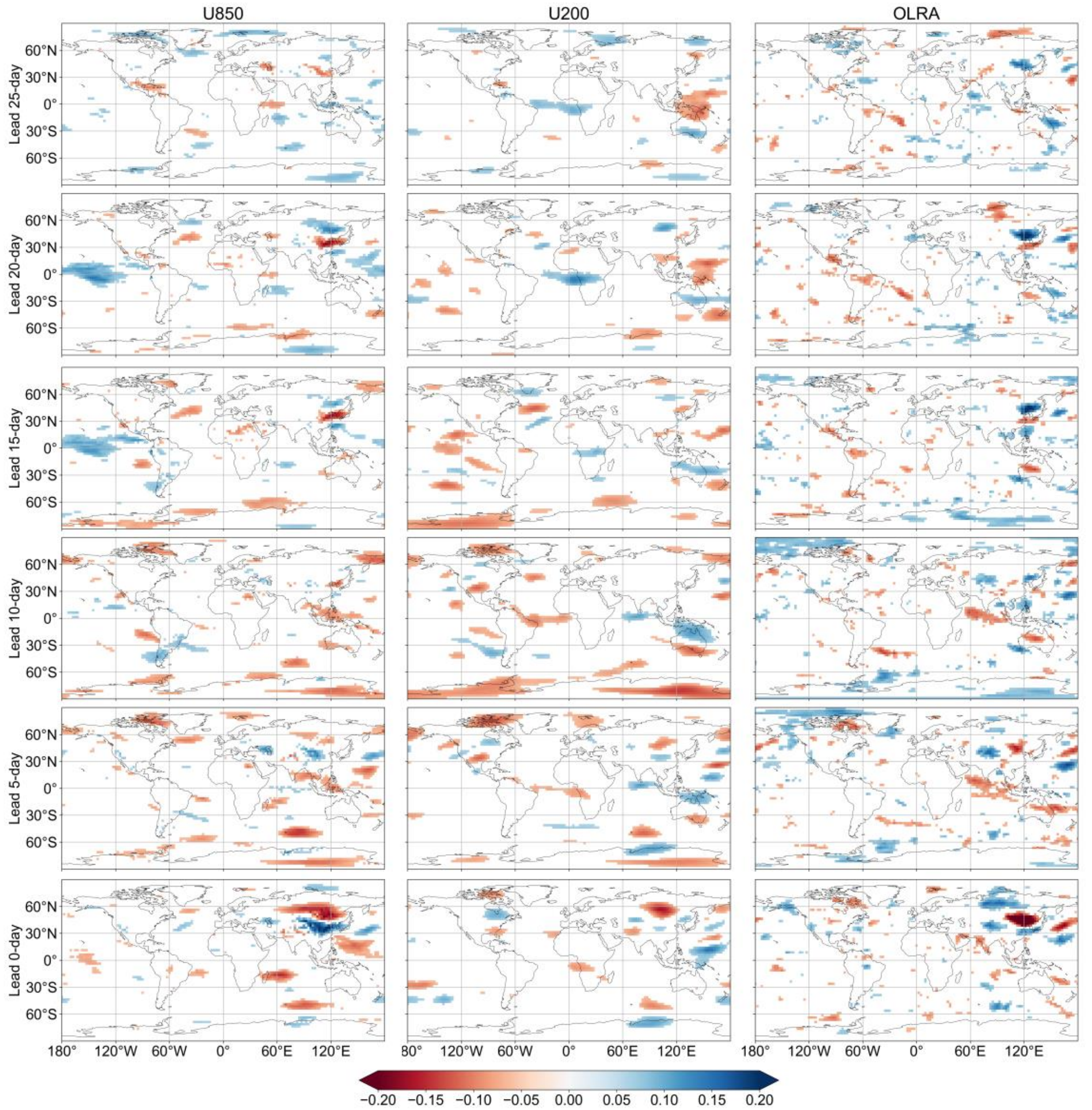

Figure S13. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 8 (Liao River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

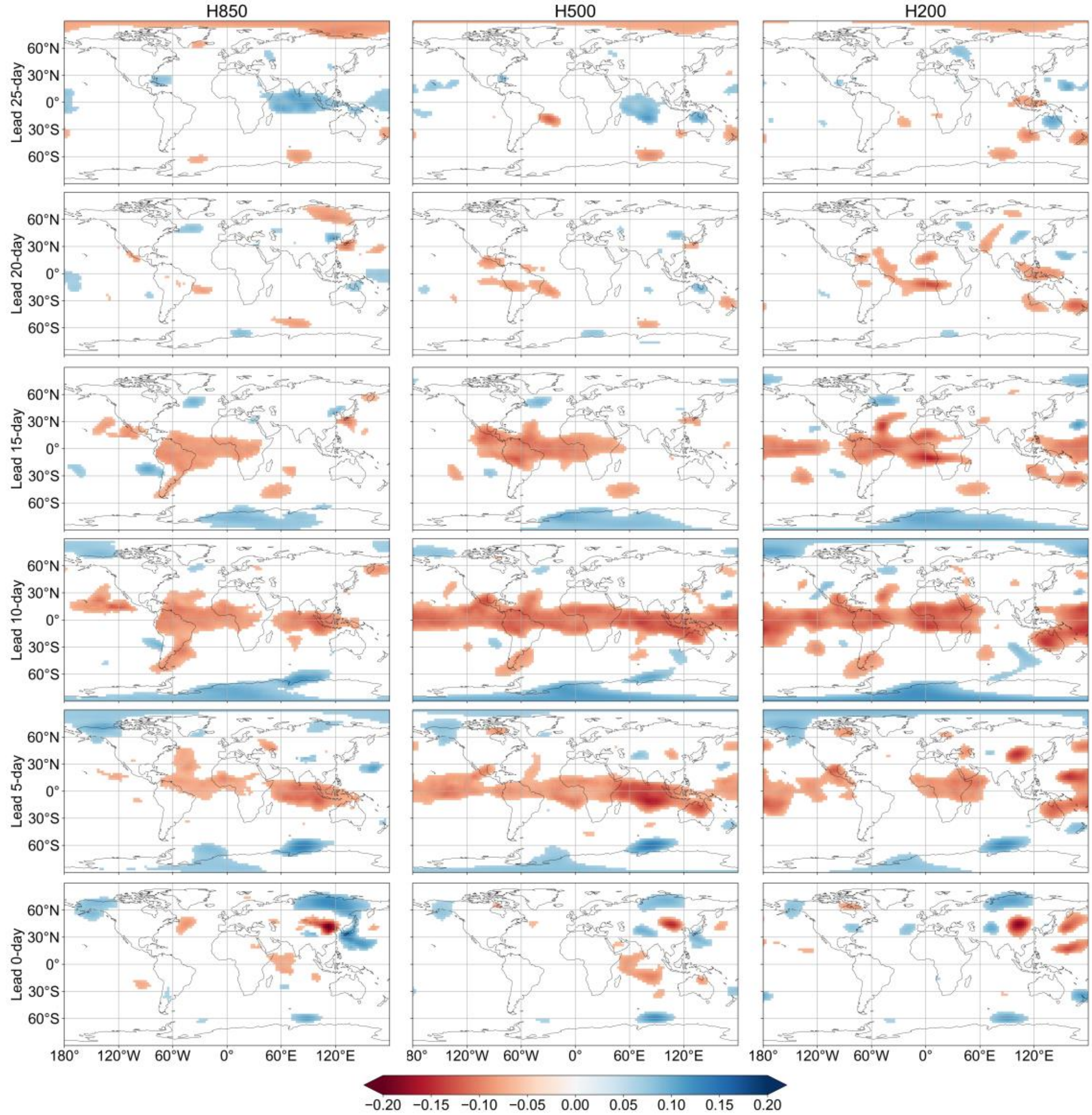

Figure S14. Same as Figure S13, but for H850, H500, and H200.

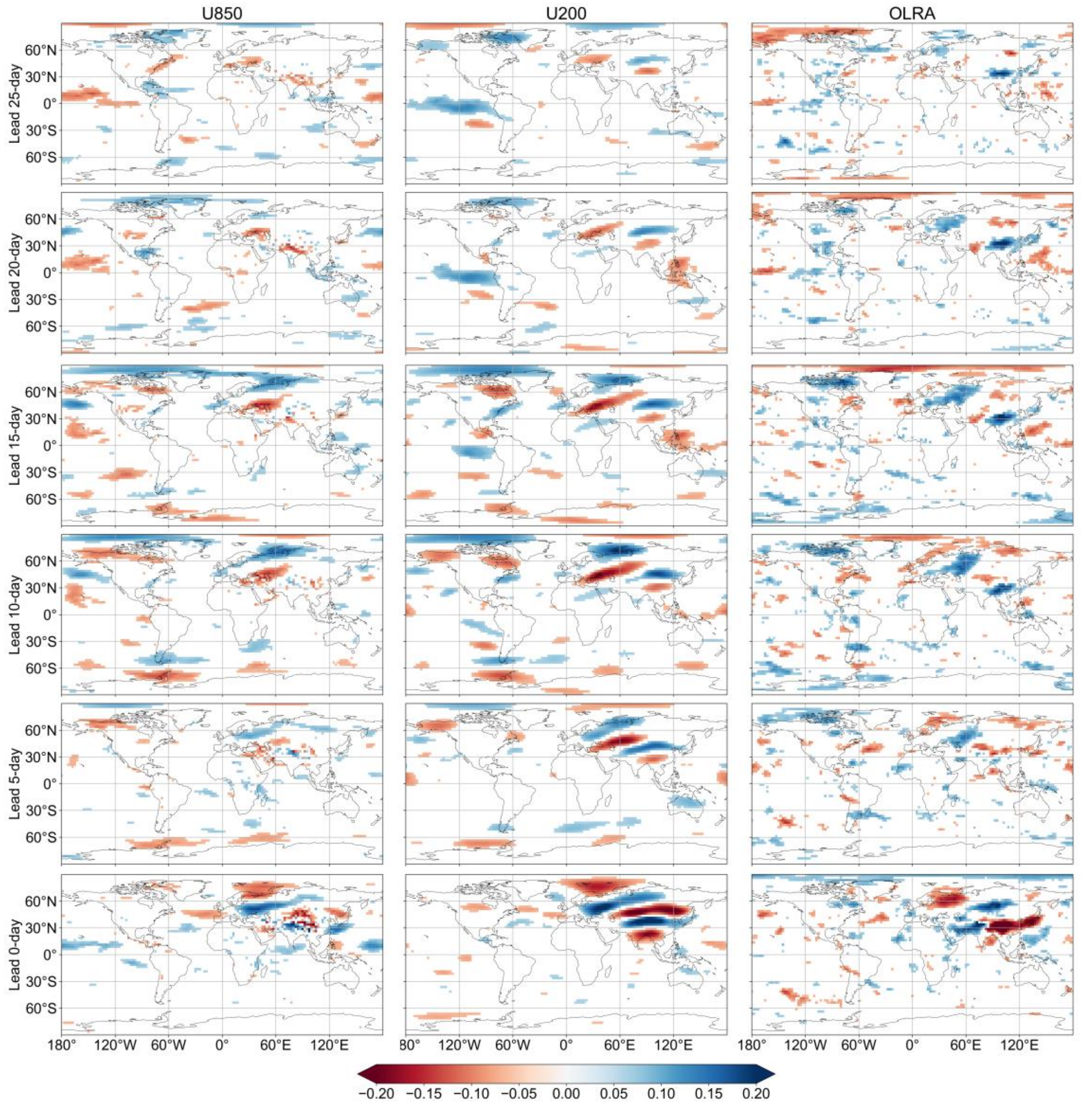

Figure S15. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 9 (Upper Yangtze River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

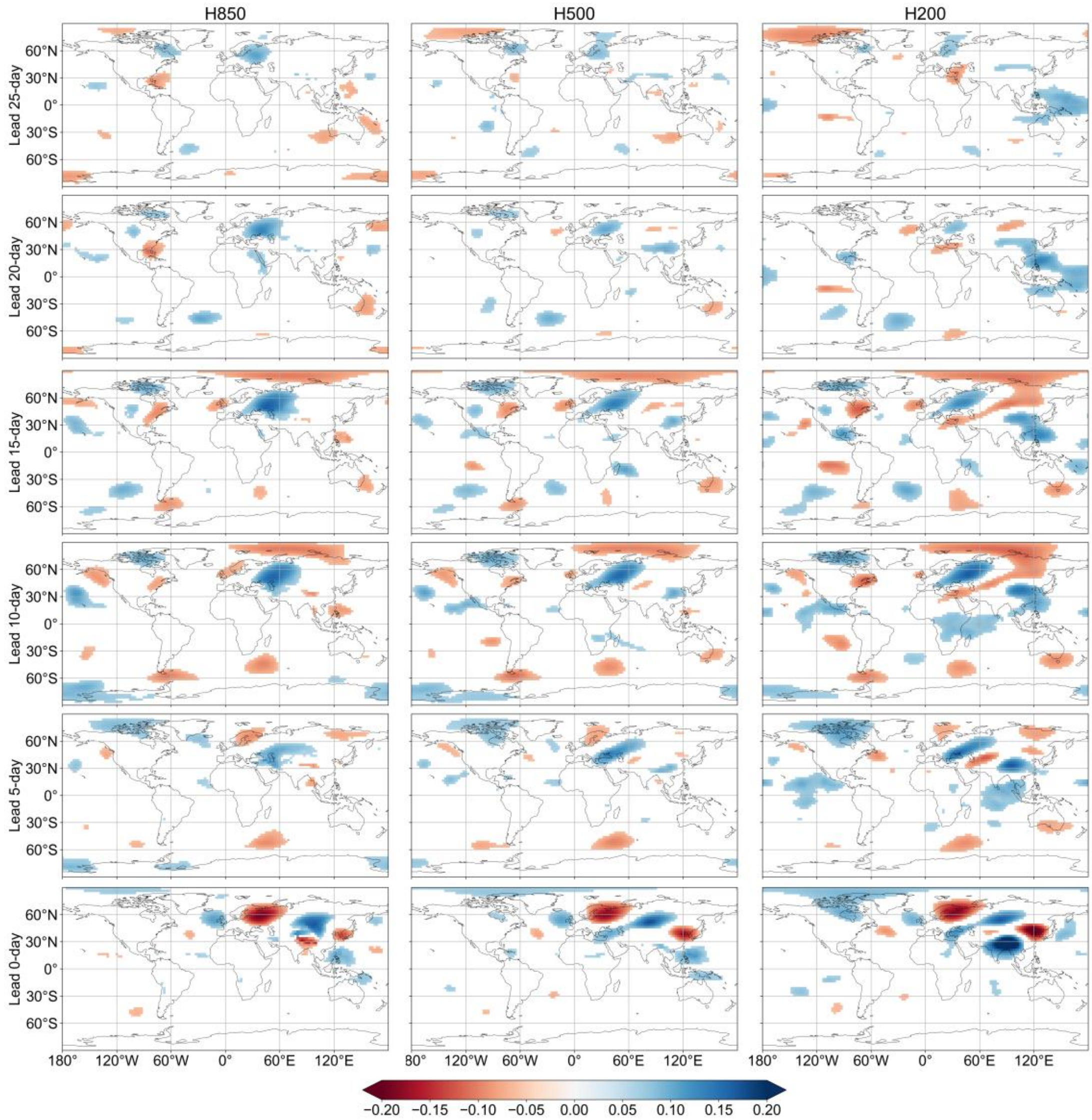

Figure S16. Same as Figure S15, but for H850, H500, and H200.

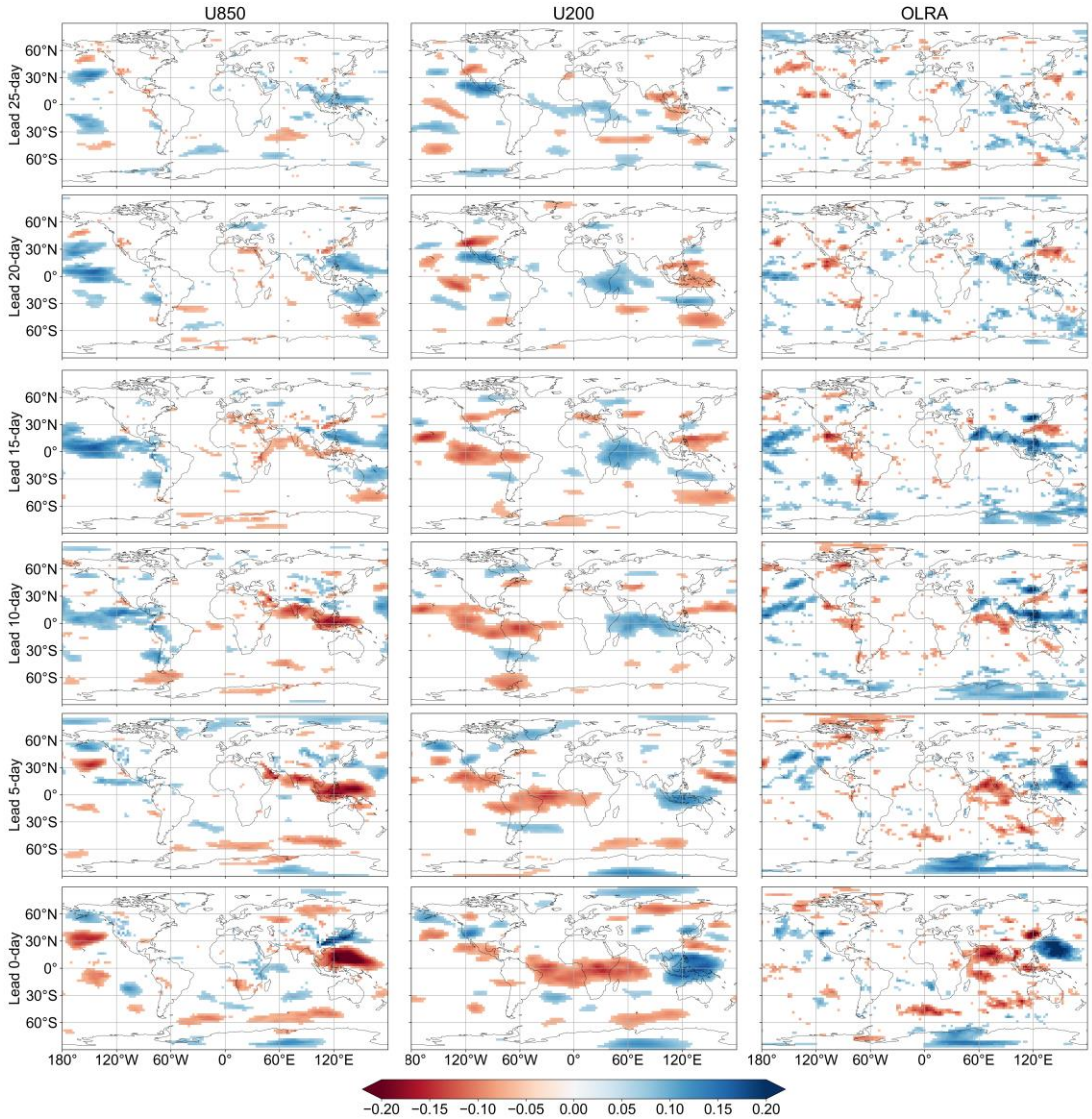

Figure S17. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 10 (Huai River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

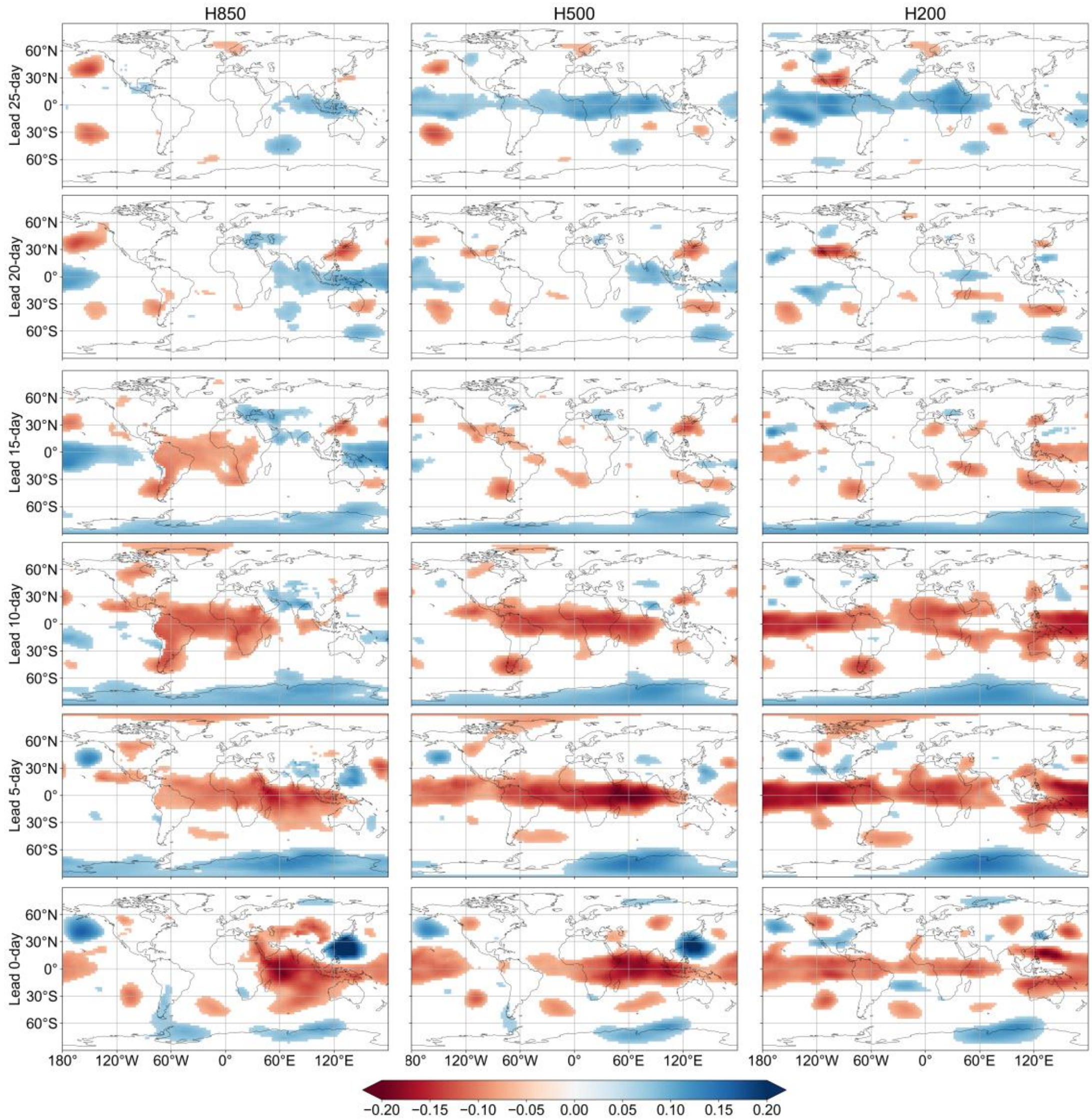

Figure S18. Same as Figure S17, but for H850, H500, and H200.

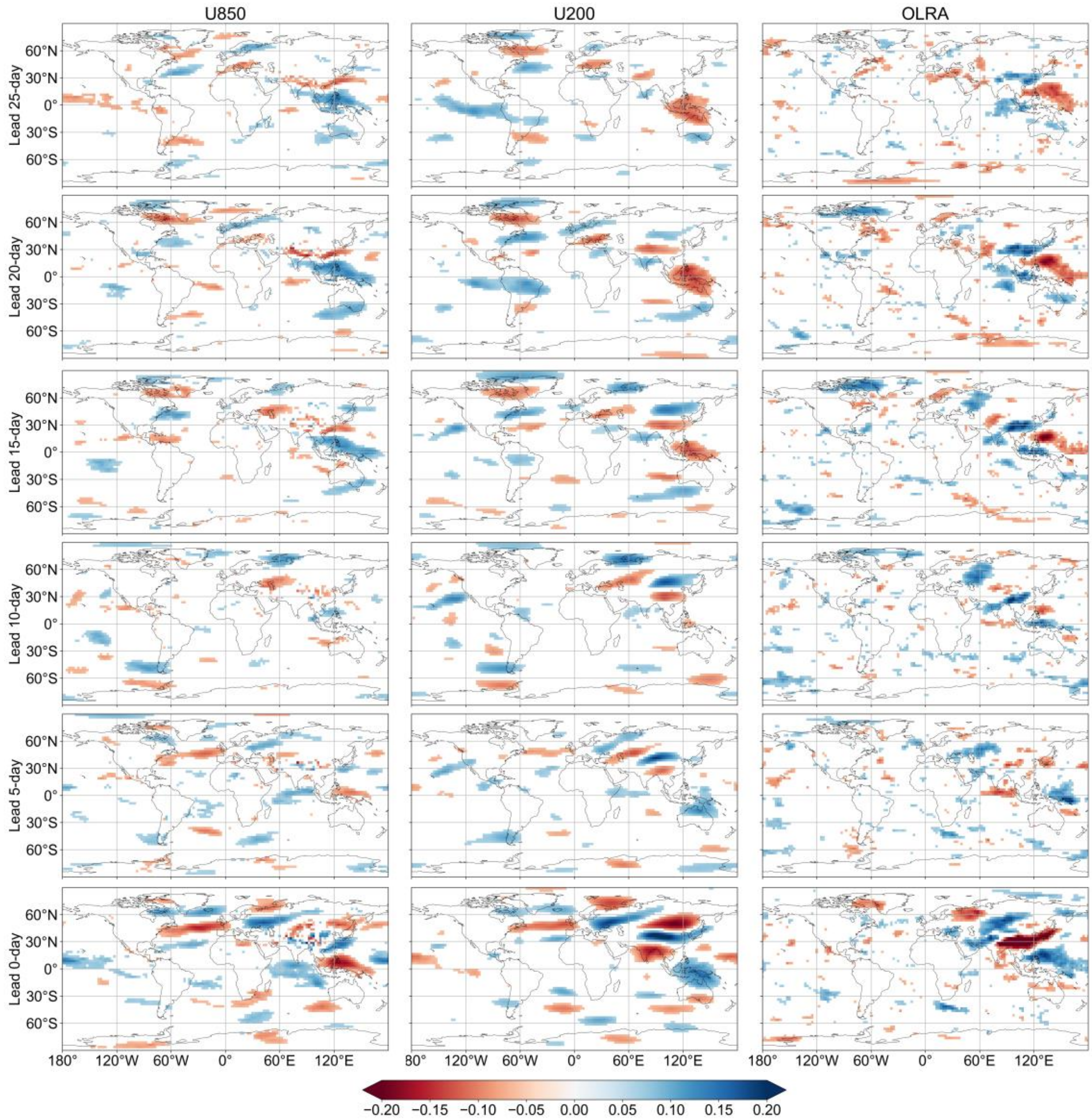

Figure S19. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 11 (Southwest rivers in southern Tibet) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

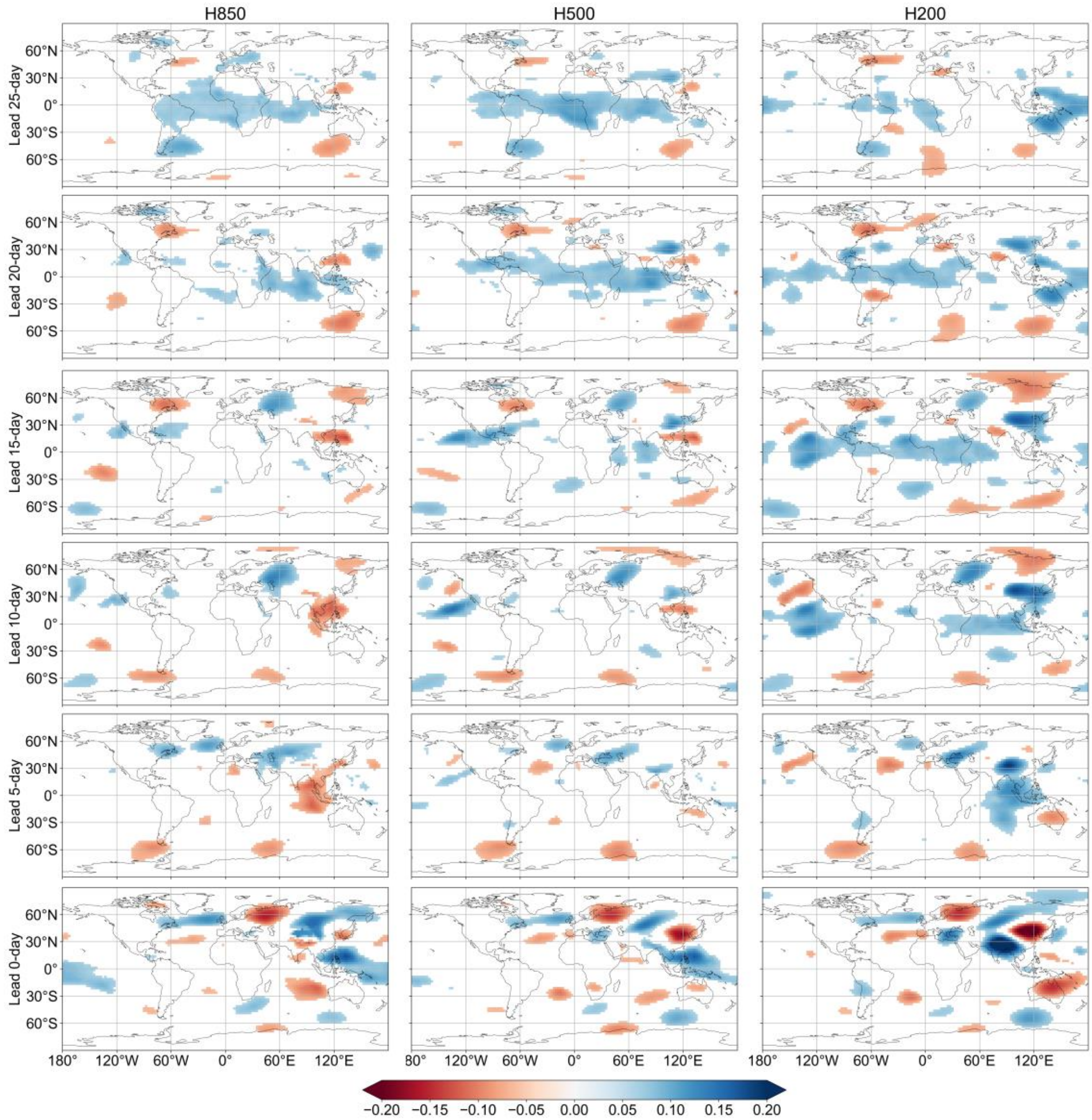

Figure S20. Same as Figure S19, but for H850, H500, and H200.

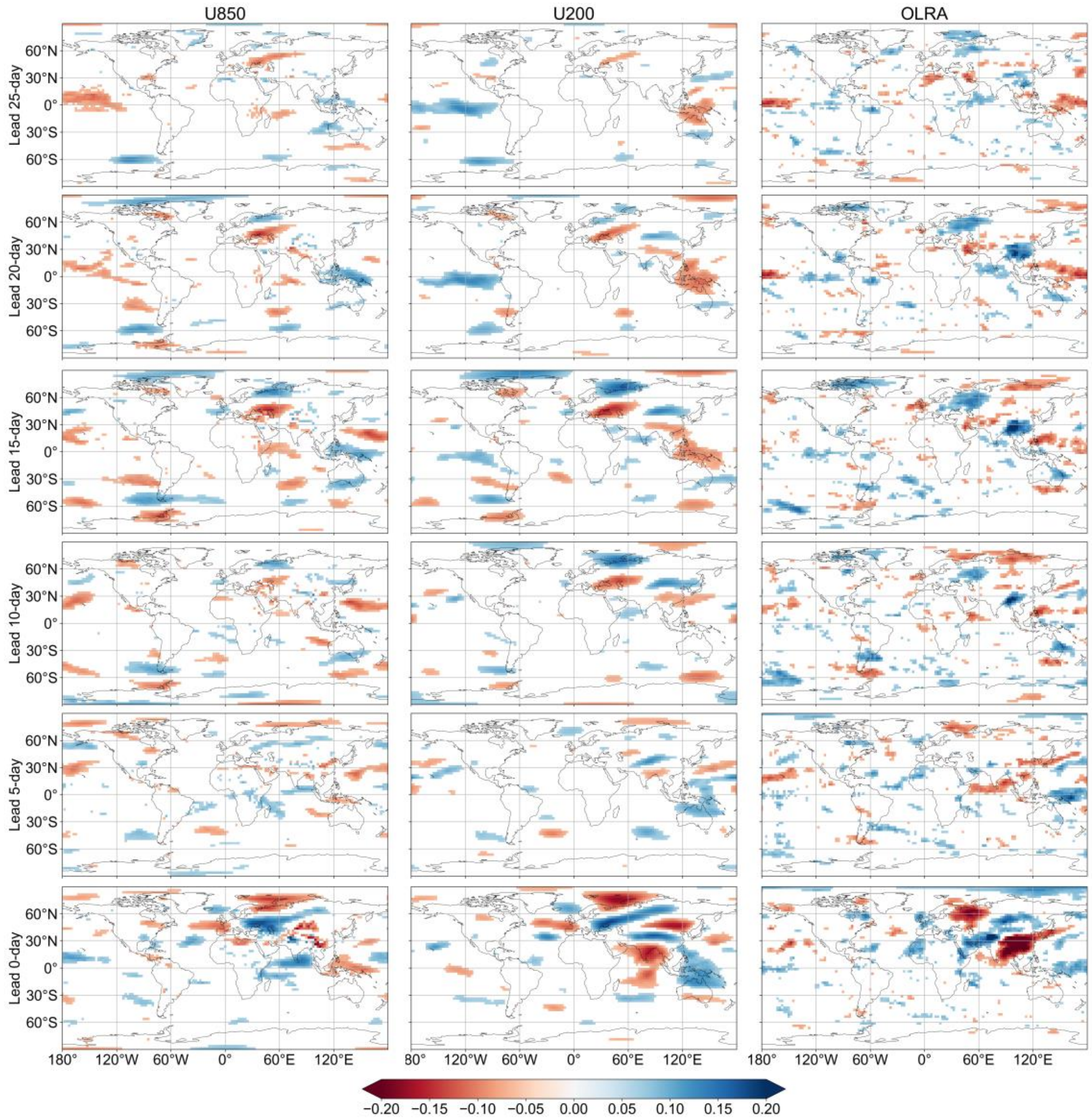

Figure S21. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 12 (Southwest rivers in Yunnan) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

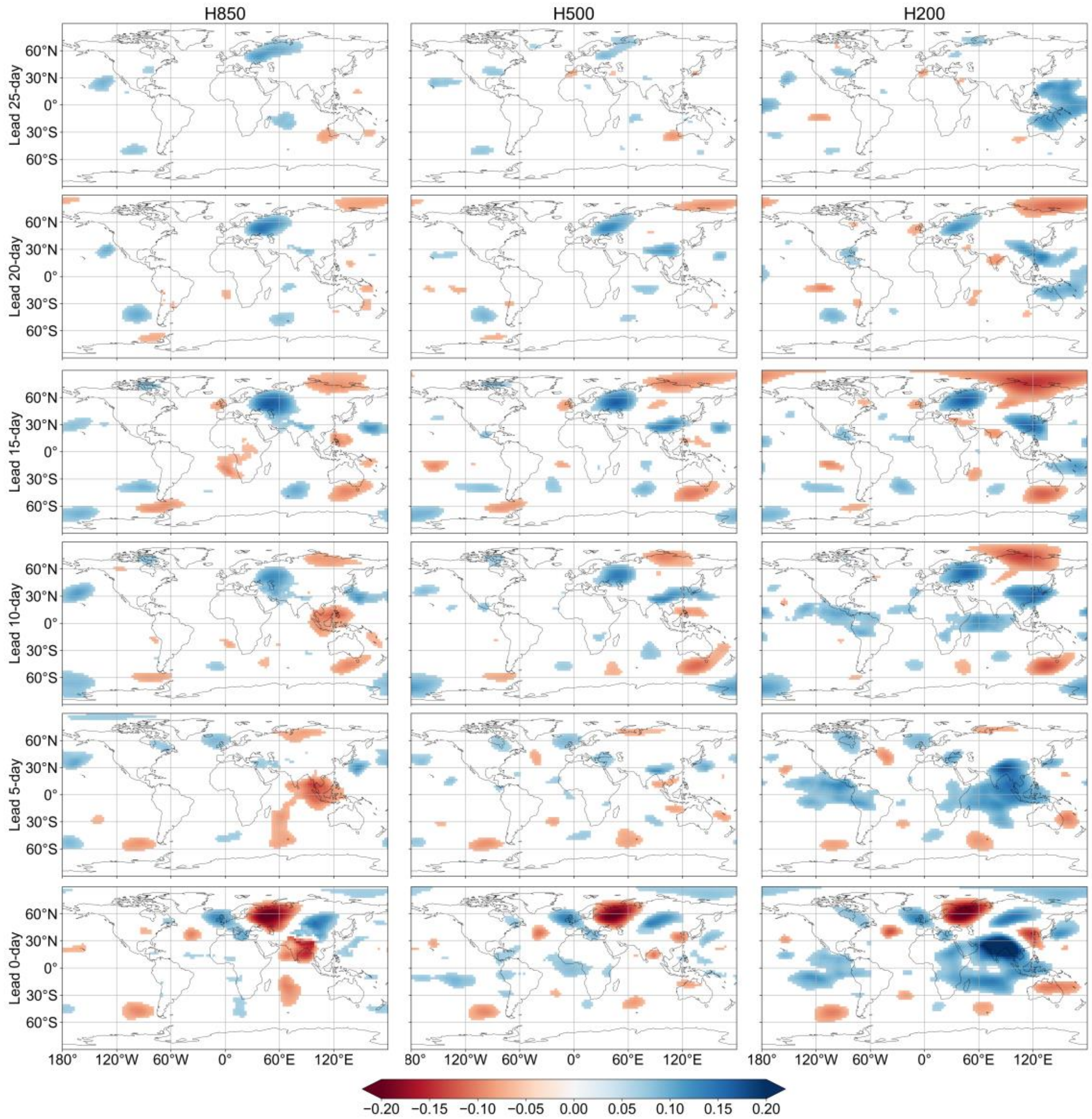

Figure S22. Same as Figure S21, but for H850, H500, and H200.

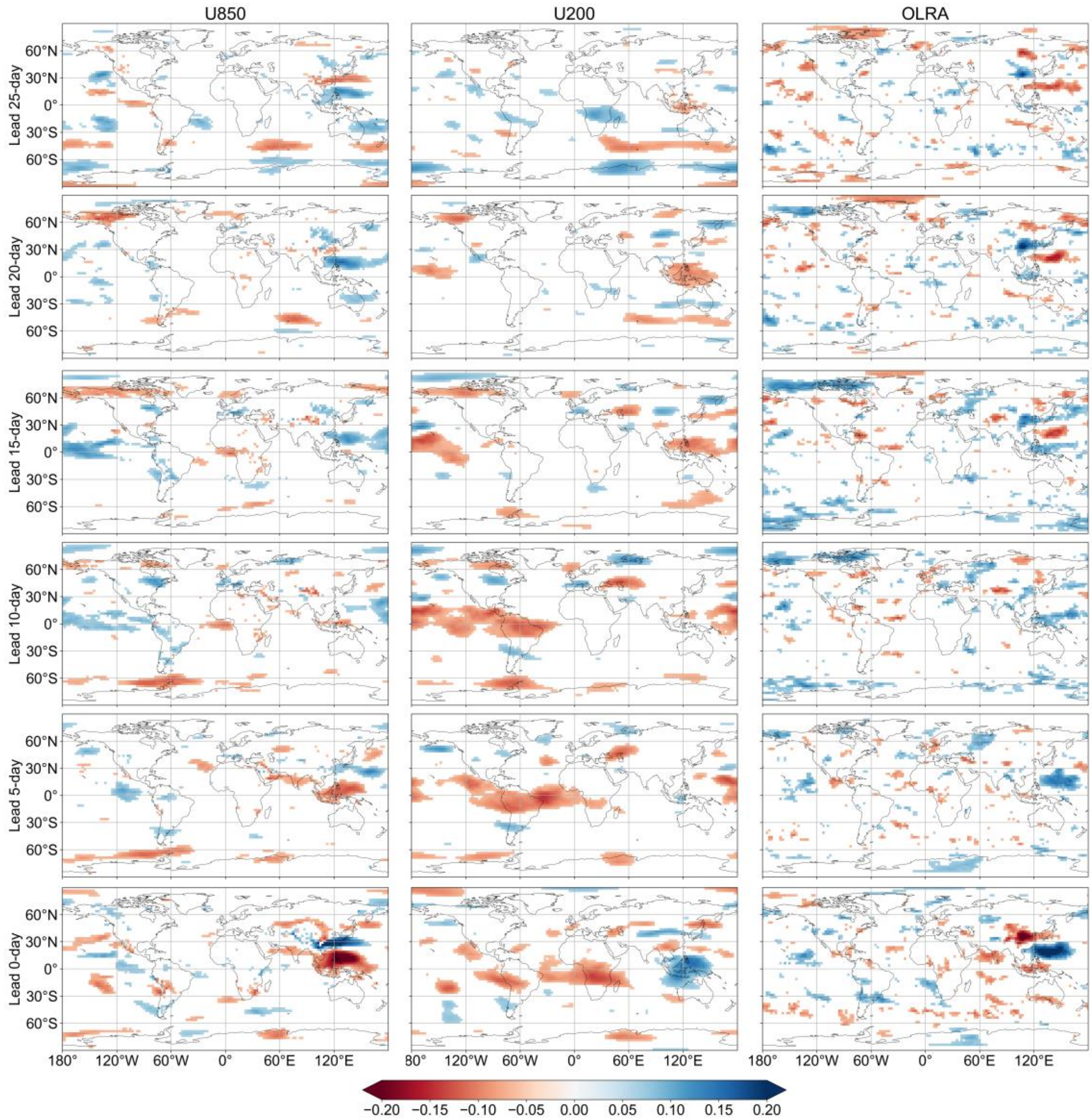

Figure S23. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 13 (Yangtze River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

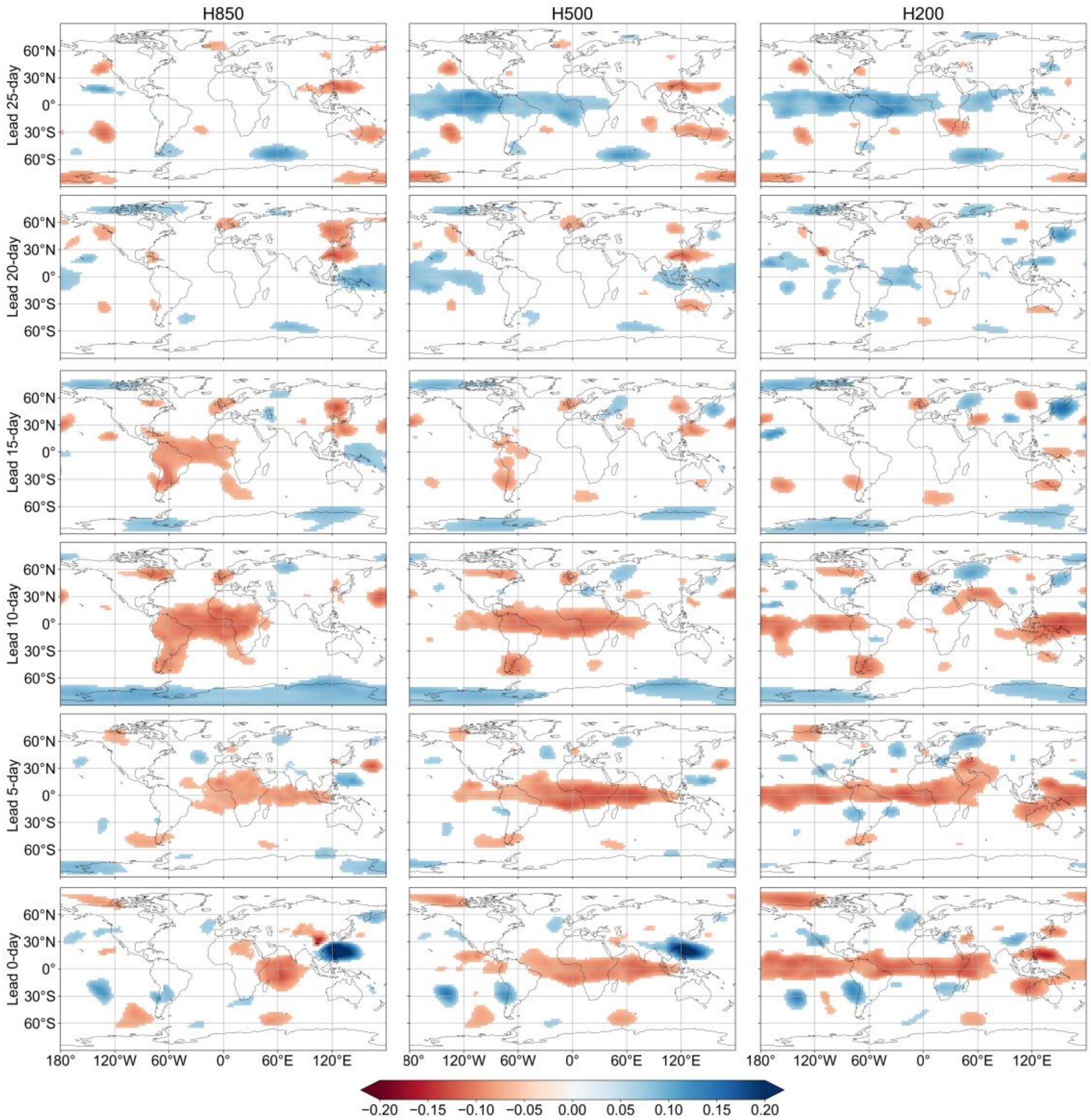

Figure S24. Same as Figure S23, but for H850, H500, and H200.

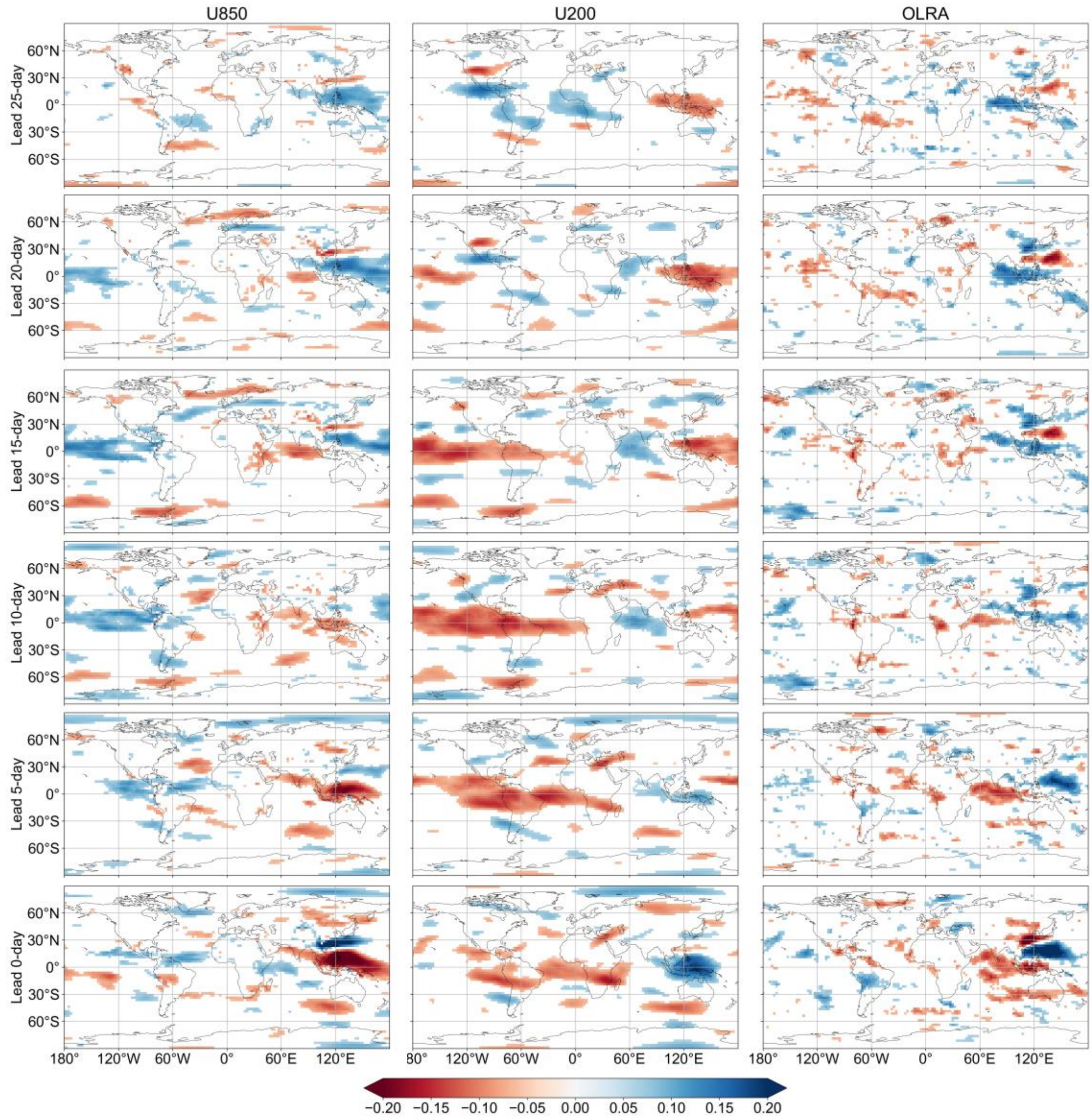

Figure S25. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 14 (Middle Yangtze River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

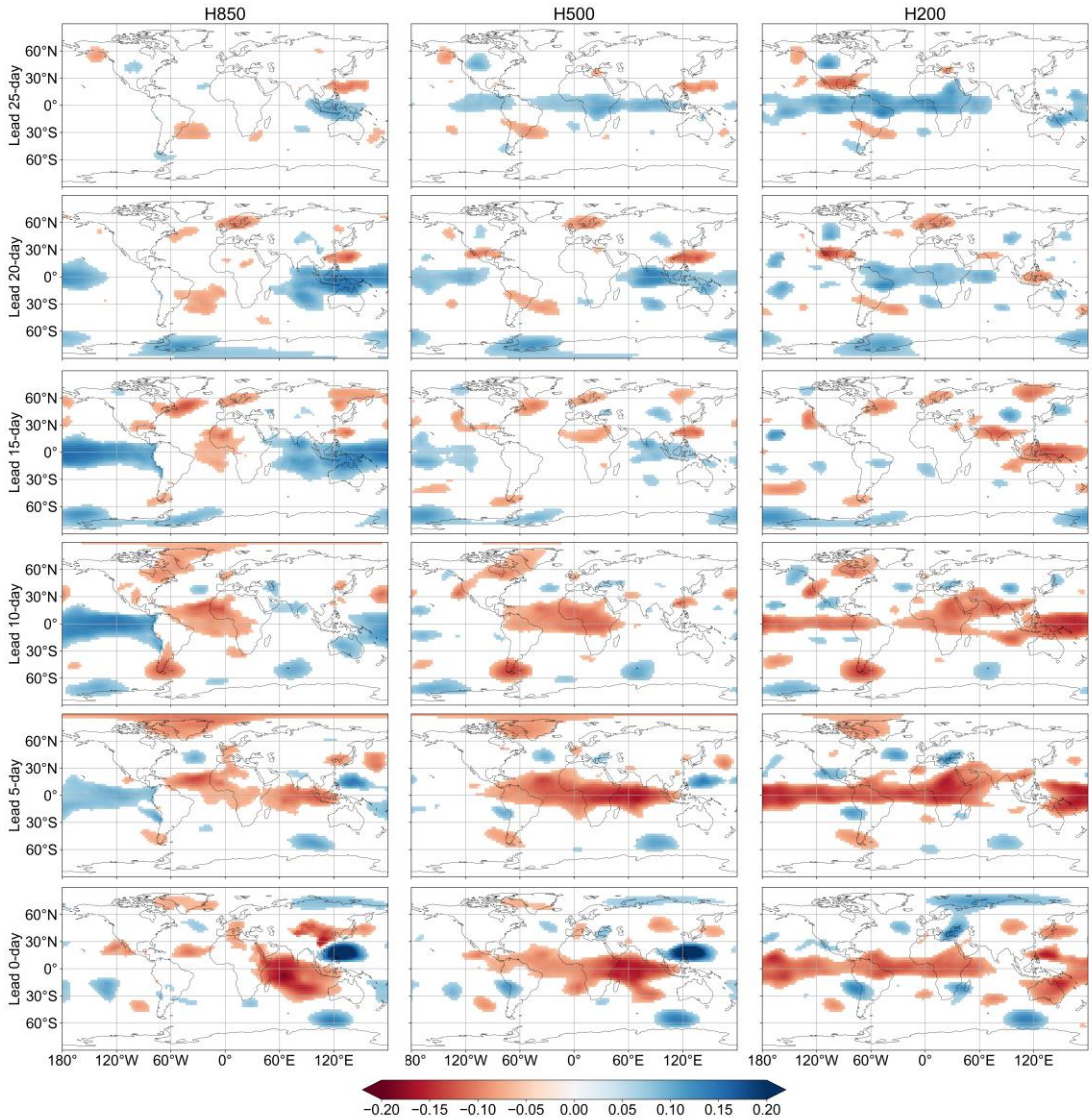

Figure S26. Same as Figure S25, but for H850, H500, and H200.

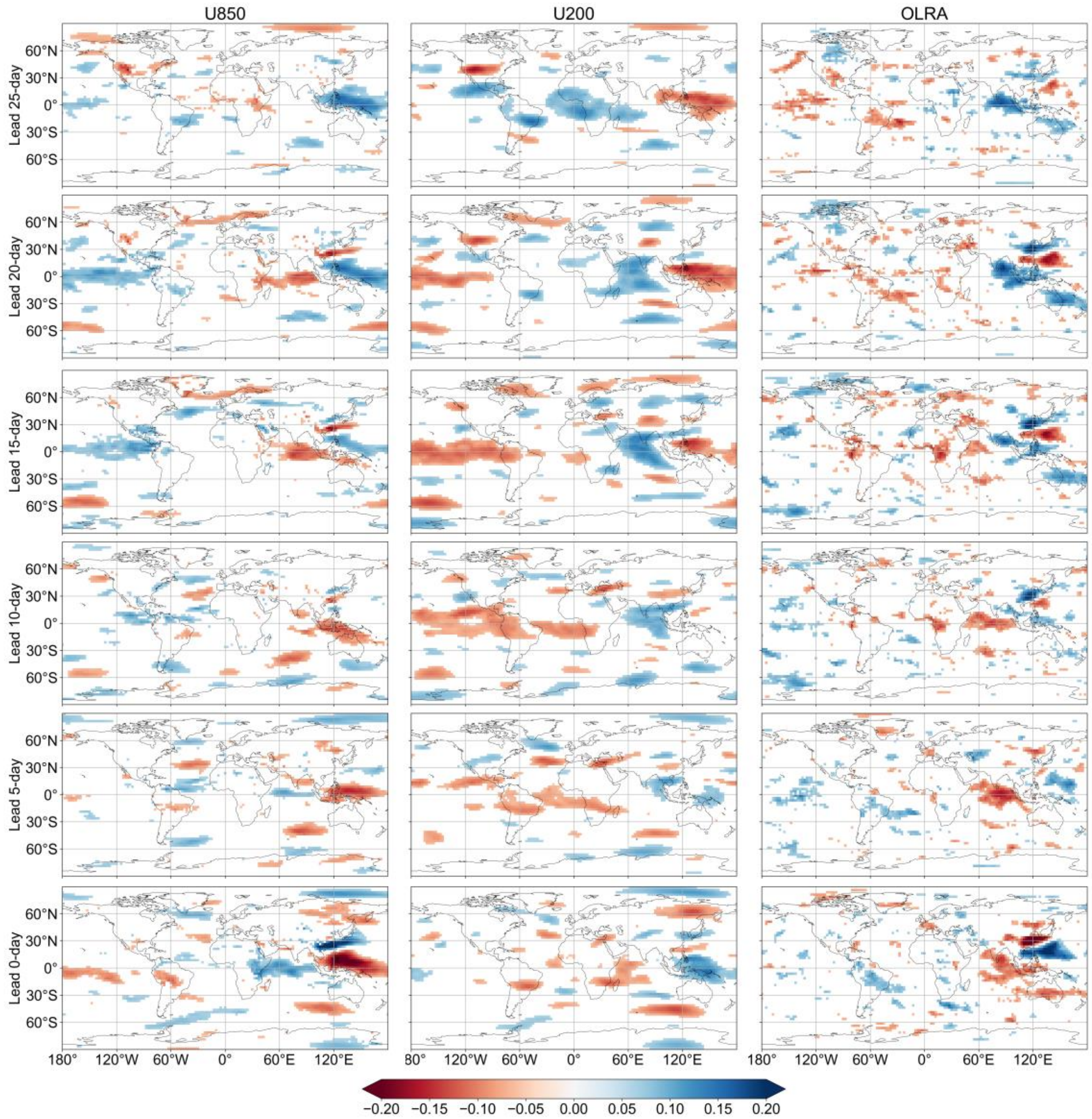

Figure S27. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 15 (Lower Yangtze River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

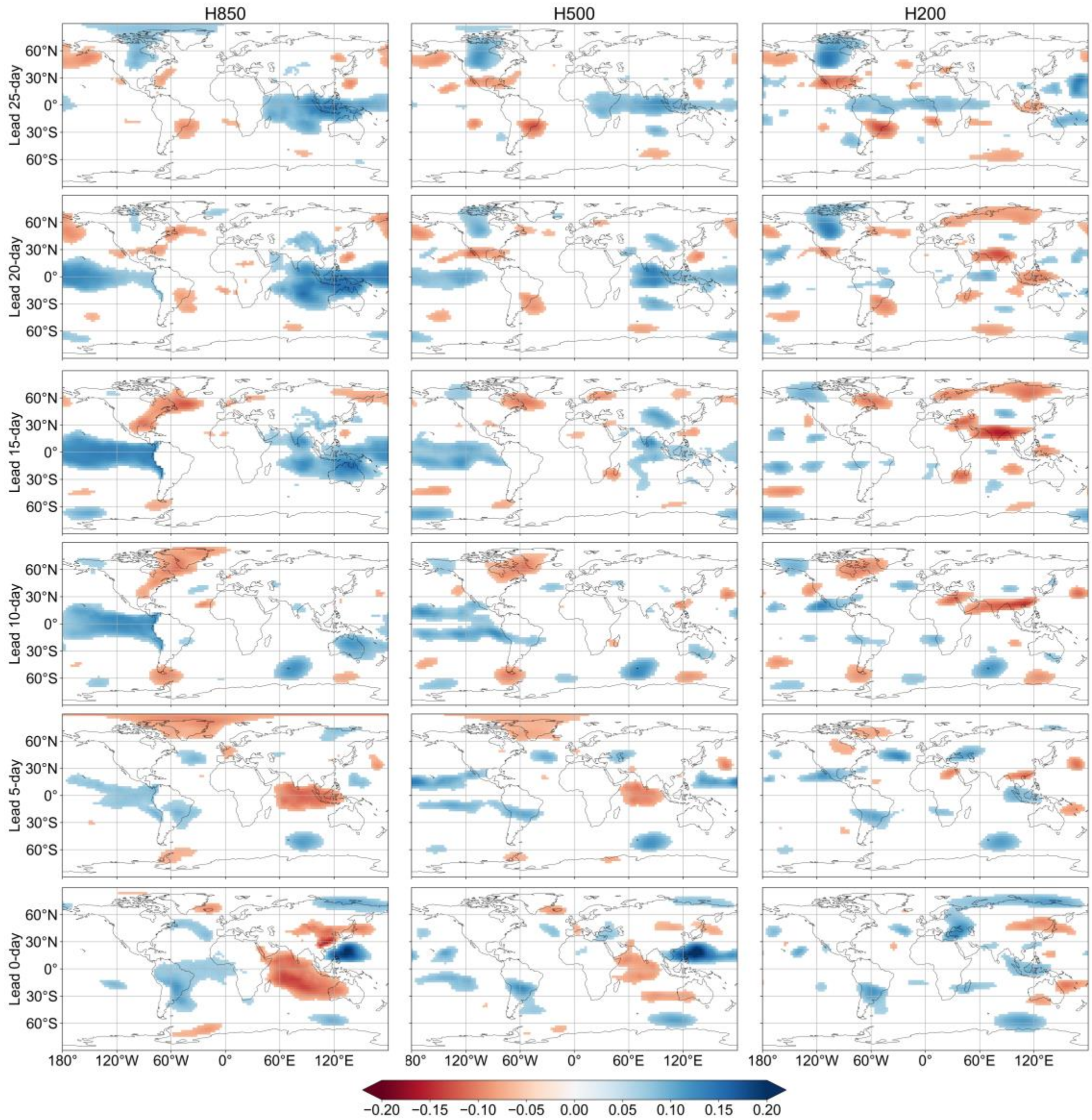

Figure S28. Same as Figure S27, but for H850, H500, and H200.

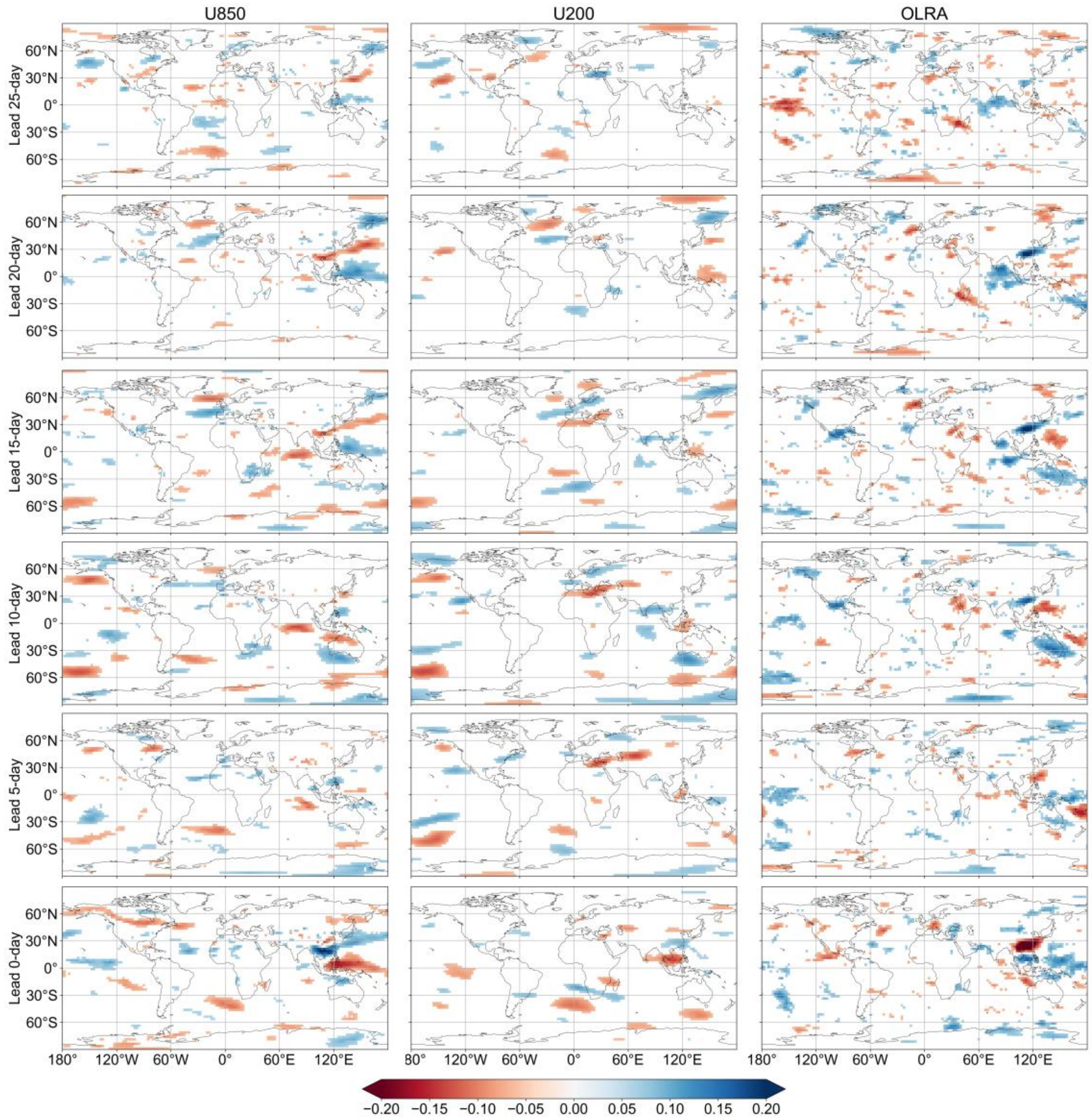

Figure S29. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 16 (Pearl River) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

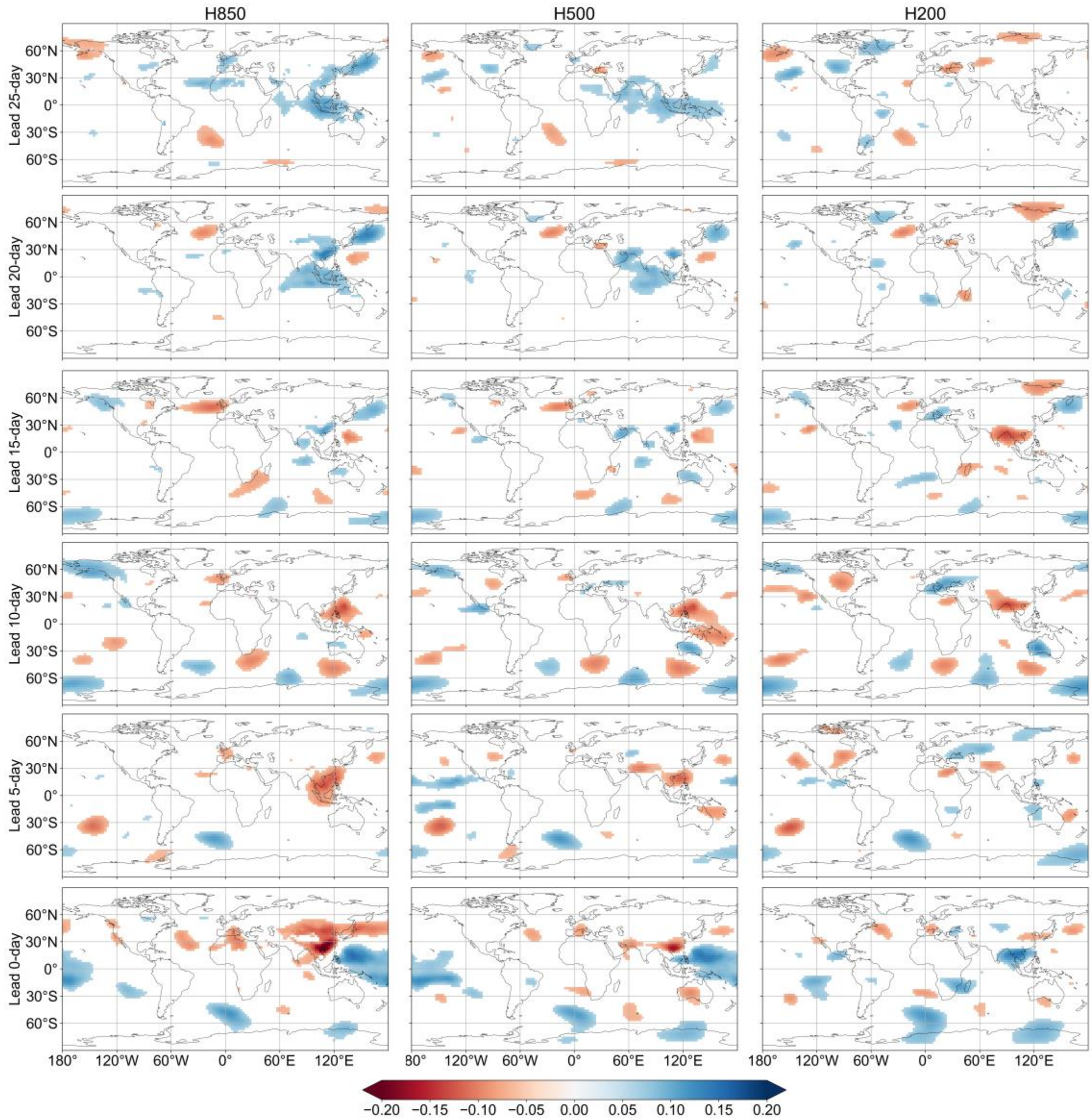

Figure S30. Same as Figure S29, but for H850, H500, and H200.

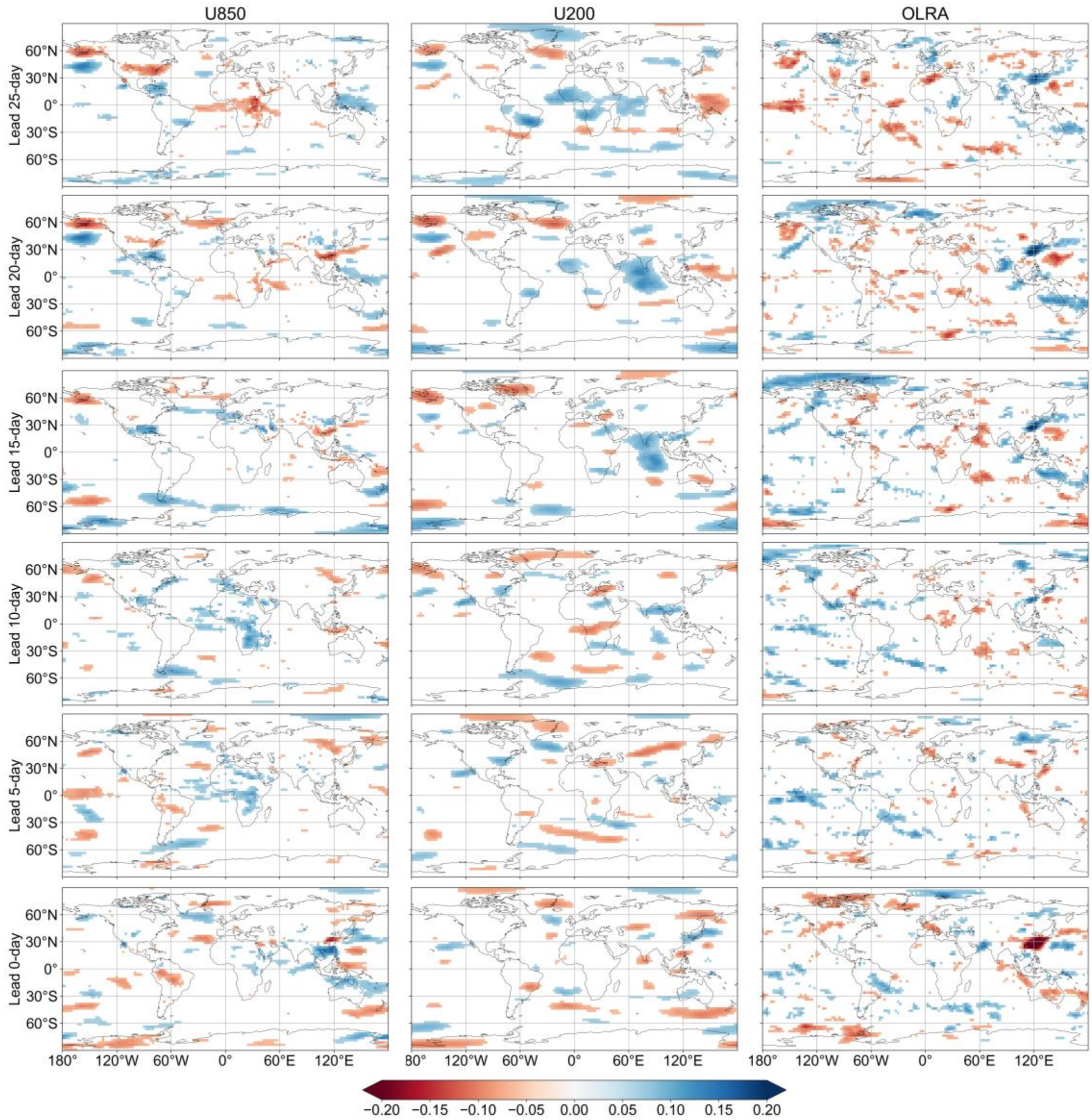

Figure S31. Correlation between preceding pentad mean 10-60-day signals of U850, U200, OLR and precipitation over Region 17 (Southeast rivers) at different lead times. Correlation coefficients statistically significant at the 5% level are shaded.

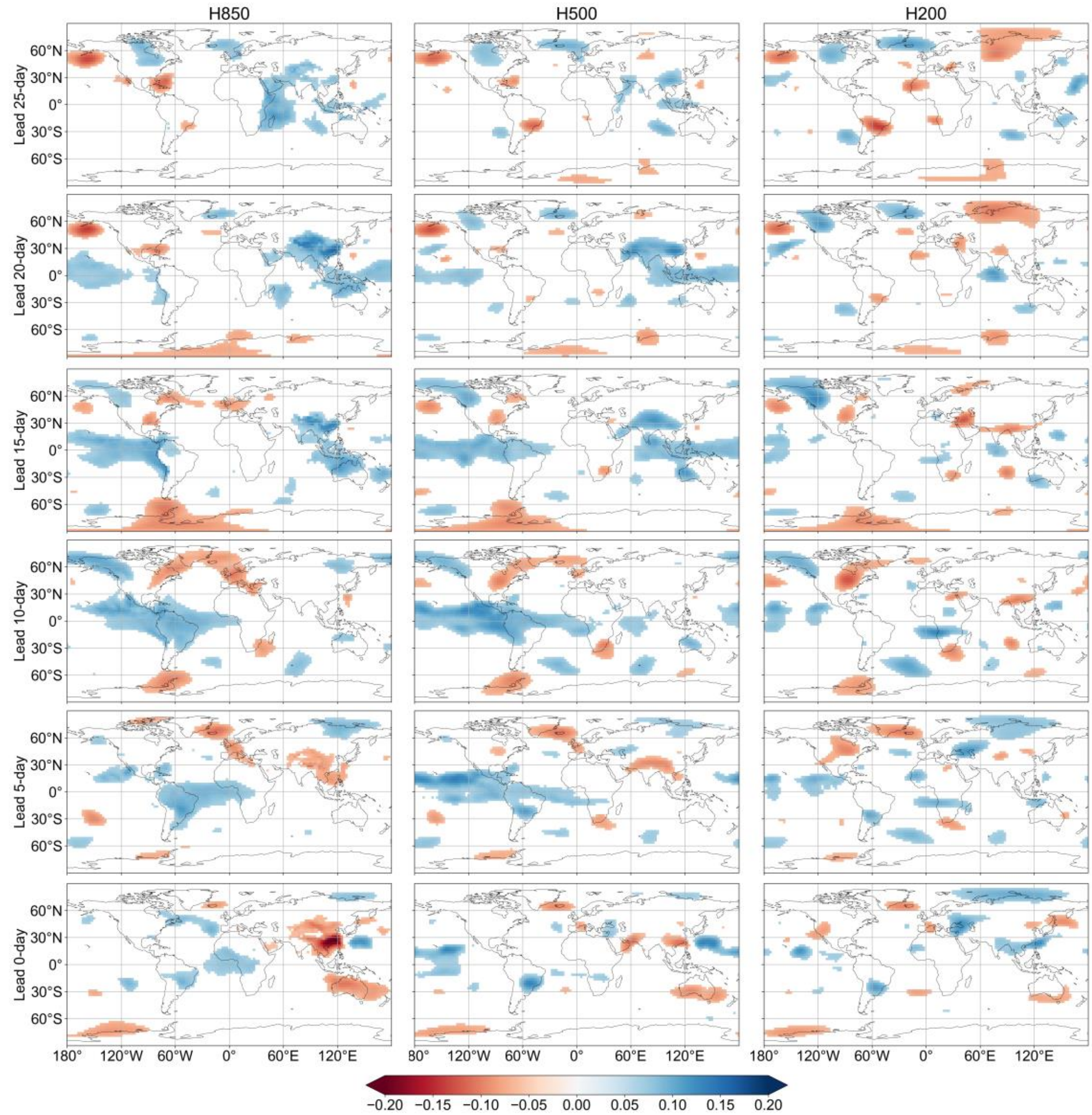

Figure S32. Same as Figure S31, but for H850, H500, and H200.

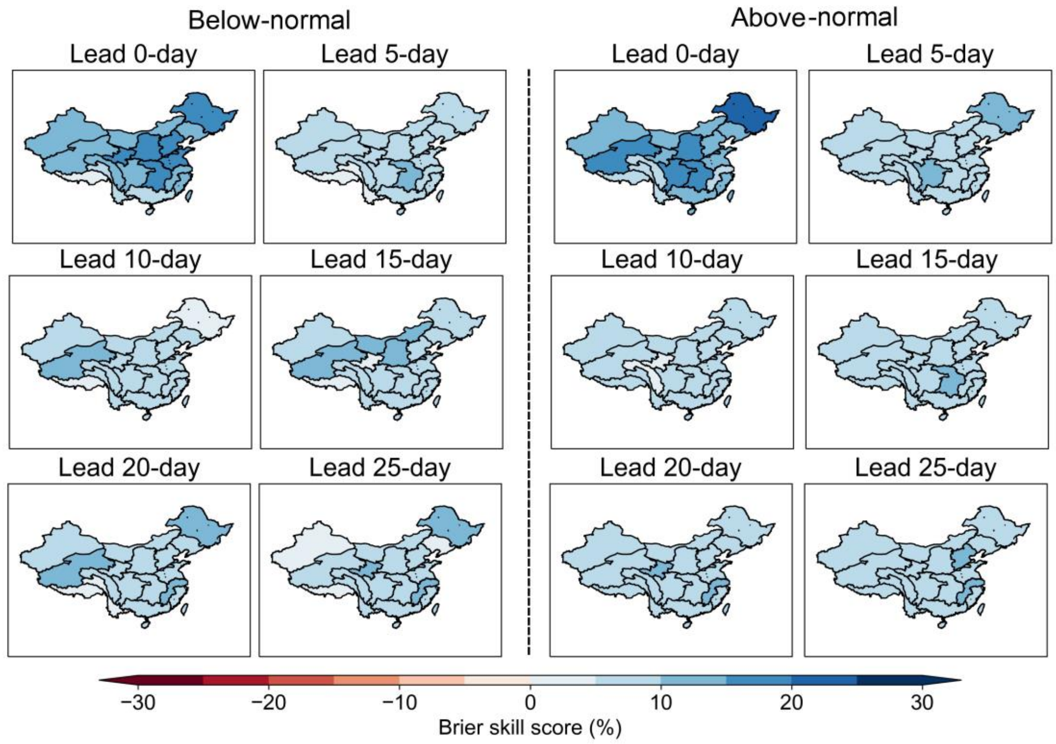

Figure S33. The Brier skill scores of the STP-BHM model for the prediction of below-normal and above-normal events of pentad mean precipitation anomalies at different lead times during the period of 1979-2016 from May to October.

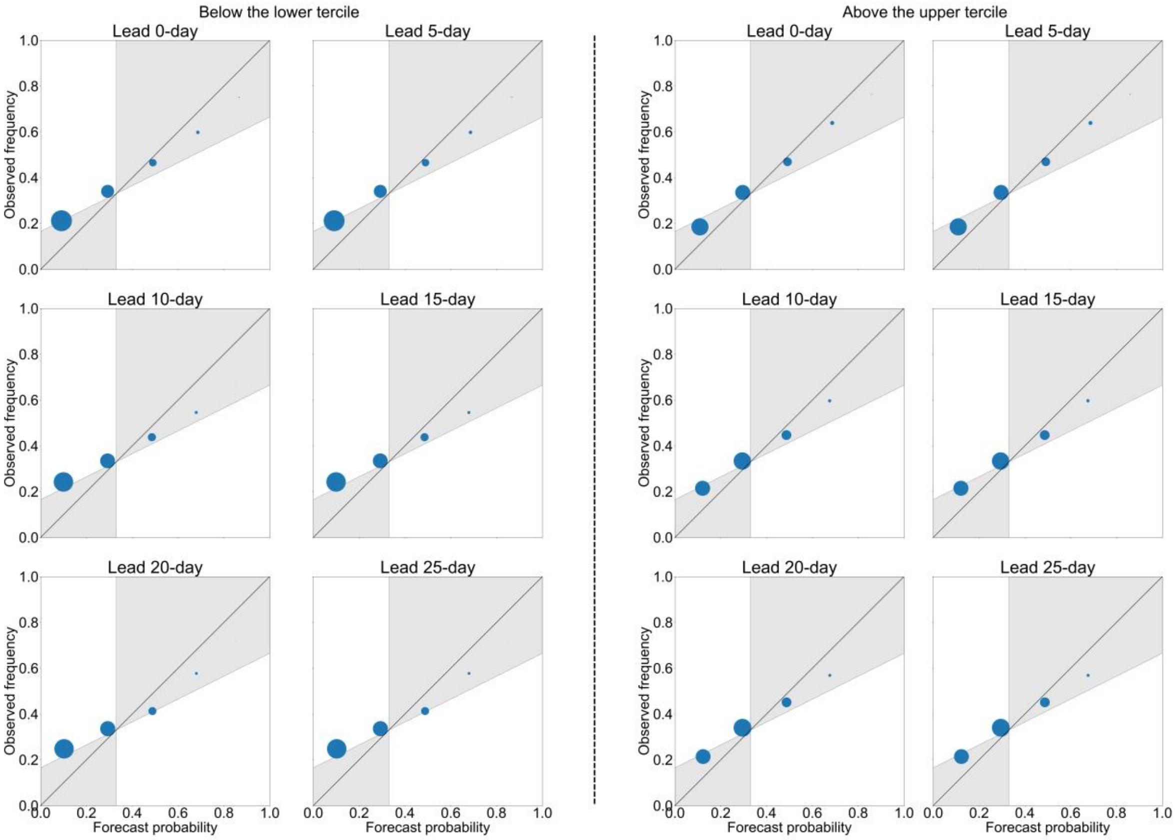

Figure S34. The attribute diagram of the STP-BHM model for the prediction of below-normal and above-normal events of pentad mean precipitation anomalies at different lead times. Forecast probability is binned with width of 0.2. The size of each dot represents the fraction of forecasts that fall into a particular probability bin.

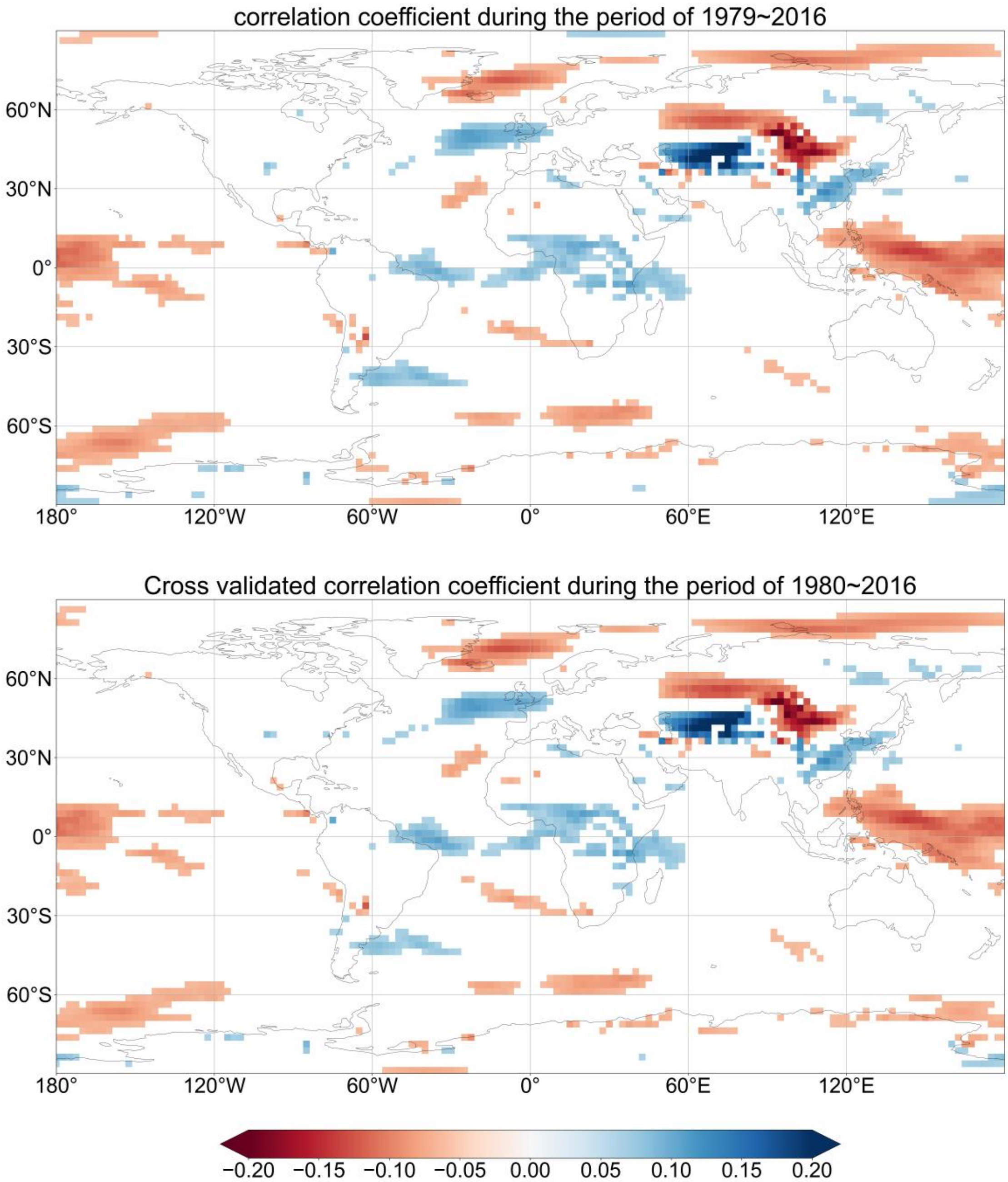

Figure S35. Correlation coefficient between ISO signals of U850 and precipitation for the whole period of 1979~2016 and the cross-validated period of 1980~2016.