

## Reply

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In a comment on Renwick and Revell (1999, hereafter RR99), Rao et al. (2000) note that Rossby wave propagation is most organized in austral spring. This reinforces a point noted in RR99 (p. 2237), that the ENSO effect on blocking frequency is strongest in the spring (RR99, their Table 2).

We suggest that the austral springtime maximum in Rossby wave activity is a trade-off between the strength of the background circulation and the strength of the tropical forcing. The subtropical jet stream reaches its maximum intensity in winter. The component of the "Rossby wave source" associated with the poleward gradient of mean vorticity (see Sardeshmukh and Hoskins 1988) is therefore maximized in winter, for a given divergent wind/tropical heating anomaly. ENSO-related

tropical heating anomalies maximize in austral summer (Mitchell and Wallace 1996; Rasmusson and Carpenter 1982). The observed springtime peak in Southern Hemisphere Rossby wave activity may be a compromise between the strength of the tropical diabatic heating anomaly and the strength of the vorticity gradient of the background flow.

### REFERENCES

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