Tellus (1992), *44A*, 79

NOTE

By A. BUZZI, *FISBAT-CNR, Bologna, Italy*, A. HANSEN, *Center for Atmospheric & Space Sciences, Augsburg College, 731 21st Avenue South, Minneapolis, MN 55454, USA*, and E. TOSI, *Department of Physics, University of Bologna, Bologna, Italy*

(Manuscript received 7 August 1991)

In a recent paper (Buzzi et al., 1990), we discussed some observational results which indicated the presence of two modes in the probability density distribution of the planetary-scale wave amplitude during Northern Hemisphere (NH) summer. This result has important implications for the theory of low-frequency variability in the mid-latitudes as discussed in our paper. A possible explanation of the bimodality is the existence of a resonance in mid-latitudes facilitated by the trapping of wave activity due to the structure of the zonally averaged flow. In our paper, we presented some additional results of an index of refraction calculation (e.g., Hoskins and Karoly, 1981) suggesting that confinement of wave activity in mid-latitudes is possible during NH summer (Buzzi et al., 1990; Fig. 6). The purpose of this note is to report that we have recently discovered that a sign error was made in the index of refraction calculation. When this error is corrected, no evidence of wave confinement, based on the Hoskins and Karoly index of refraction, is indicated.

The corrected index of refraction does not affect the main result of our paper, it only removes the suggestion, based on Hoskins and Karoly type arguments at least, that resonance is possible in NH summer. The major result of our paper that NH summer exhibits bimodality stands, and is supported by recent results from the NCAR Community Climate Model (Hansen and Sutera, 1990).

REFERENCES

Buzzi, A., Hansen, A. R. and Tosi, E. 1990. Probability density distributions of large-scale midlatitude circulation parameters during Northern Hemisphere summer. *Tellus 42A*, 366–377.

Hansen, A. R. and Sutera, A. 1990. Weather regimes in a general circulation model. *J. Atmos. Sci. 47*, 380–391.

Hoskins, B. J. and Karoly, D. 1981. The steady linear response of a spherical atmosphere to thermal and orographic forcing. *J. Atmos. Sci. 38*, 1179–1196.

Printed in Belgium