

Comments on "Response of the Hurricane Boundary Layer to Changes of Sea Surface Temperature in a Numerical Model"

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In two recent papers, Anthes and Chang used a new parameterization of the planetary boundary layer in an axisymmetric numerical hurricane model. They found that when sea surface temperature was suddenly changed (Anthes and Chang, 1978), the model hurricane underwent much smaller intensity changes than had earlier models. When the model was expanded to incorporate an interacting ocean (Chang and Anthes, 1979), negative feedback still further reduced the ocean temperature effect on the hurricane.

Both papers included extensive references to earlier works which claimed that "the state of the ocean has a great influence on the intensities, structures and even paths of tropical cyclones." Anthes

and Chang will no doubt be pleasantly surprised to learn that their results confirm what had already been deduced from studies of typhoons in the South China Sea (Ramage, 1972, 1974).

REFERENCES

- Anthes, R. A., and S. W. Chang, 1978: Response of the hurricane boundary layer to changes of sea surface temperature in a numerical model. *J. Atmos. Sci.*, **35**, 1240–1255.
- Chang, S. W., and R. A. Anthes, 1979: The mutual response of the tropical cyclone and the ocean. *J. Phys. Oceanogr.*, **9**, 128–135.
- Ramage, C. S., 1972: Interaction between tropical cyclones and the China Seas. *Weather*, **27**, 484–494.
- , 1974: The typhoons of October 1970 in the South China Seas: Intensification, decay, and ocean interaction. *J. Appl. Meteor.*, **13**, 739–751.

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