

The experience of several thousand hours of flight as observer and navigator of weather reconnaissance airplanes has taught one of us that fronts in the real atmosphere frequently are at variance with their description and explanation in textbooks. Satellite cloud pictures, if not selected from the larger sample for apparent agreement with preconceived models, confirm this experience. Therefore, to disregard the (otherwise physically acceptable) results of an aerological ascent just because the atmosphere "should" behave in a different form, does not appear to further the understanding of atmospheric phenomena. If our study, including Dr. Jordan's and these comments, helps to convey this notion to our colleagues, we think the purpose of its publication is satisfactorily fulfilled.

## REFERENCES

1. W. Schwerdtfeger and N. D. Strommen, "Structure of a Cold Front Near the Center of an Extratropical Depression," *Monthly Weather Review*, vol. 92, No. 11, Nov. 1964, pp. 523-531.
2. A. Court and H. A. Salmela, "Hourly Rawinsondes for a Week," *G R D Research Notes*, No. 60, Geophysics Research Directorate, Air Force Cambridge Research Center, Bedford, 1961.
3. A. J. Kantor, "Tropopause Definition and Hourly Fluctuations," *Environmental Research Papers*, No. 41, Air Force Cambridge Research Laboratories, Office of Aerospace Research, L. G. Hanscom Field, Mass., 1964, 23 pp.

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## Comments on "Picture of the Month"

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The "Picture of the Month" in the January issue [1] shows a cloud pattern accompanying a large vortex and an associated front off the coast of East Antarctica. The description that accompanied the picture suggests that the front "has advanced very far to the east of the low center."

A continuing study, being conducted at the U.S. Navy Weather Research Facility [2], of daily composites of Southern Hemisphere nephanalyses indicates that such positioning of major cloud bands with respect to low centers over the Southern Ocean is rather common. It also appears that these major cloud bands rotate in a clockwise fashion around the Low and at some later time impinge upon the coast of Antarctica.

Vorticity centers behind these fronts, as noticed on the picture, are also relatively common; on some composites several such centers have been noticed in the area behind the major cloud bands.

## REFERENCES

1. [Staff, National Environmental Satellite Center], "Picture of the Month," *Monthly Weather Review*, vol. 94, No. 1, Jan. 1966, p. 54.
2. C. Biter and B. Watson, "A Preliminary Investigation of Southern Hemispheric Cloud Systems," *NWRF Technical Paper*, 1966 (in preparation).

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