Reply

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In my article[1] on large-scale atmospheric turbulence it was emphasized (p. 266) that

> important modifications in small-scale theory will be necessary before the results will be fully applicable to large-scale fluctuations of dynamical quantities such as atmospheric pressure.

It will be noticed that most of the relations referred to by Dr. Buell involve atmospheric pressure. Nevertheless, Dr. Buell's note is useful in pointing out some of the more important of the above-mentioned modifications that will have to be taken into account in a more complete theory of large-scale atmospheric turbulence.

One of the most interesting of these relations is the empirical fact that $r(p, u) \approx -0.7$. It is perhaps worth pointing out that this result was obtained for a particular period (January, February and March, 1950 and 1951) at only one station (Miami, Florida) and is in sharp disagreement with the small values that might have been inferred, for geostrophic winds on an annual basis, from fig. 6 in Dr. Buell's article.[2]

Nevertheless, may I say in conclusion that I fully agree with the last sentence of Dr. Buell's letter and wish to thank him for his interest in my work on large-scale atmospheric turbulence.

[1] J. W. Hutchings, "Turbulence theory applied to large-scale atmospheric phenomena," *J. Meteor.*, 12, 263–271, 1955.

[2] C. E. Buell, "Some relations among atmospheric statistics," *J. Meteor.*, 11, 238–244, 1954.