

correspondence

Tropical meteorology conference

W. H. Portig, *National Engineering Science Company, Houston, Texas*

In the August (1963) issue of the BULLETIN, Dr. R. H. Simpson made some critical comments on my conference report published in the February issue. His comments require a reply because of the extremely strong language in which they are written. This language is the strongest that has ever been applied to any of my papers since I published my first article on this subject 24 years ago.

The second and third paragraphs of my conference report make it clear that the conference was not a public meeting and that it was not supposed to deal with tropical meteorology in general. Instead, it was intended to supplement and round off the contract work done by the University of Texas for the U. S. Army Signal Corps. Hence it was only natural that the program was slanted to the work done at U. T., i.e., toward my own work. It is not true that a discussion of my talk was not "allowed"; I regret that the participants of the conference unexpectedly cut away the last two hours of the session time in order to reach the last transportation of that day. Some of them, but not Dr. Simpson, responded to my frequently expressed suggestion to write me after the conference. Many of the items brought up in this way have been included in the Proceedings of the Conference.

I do not see a reason to change the wording of the paragraph concerning the outstanding importance of non-convective rainfall. Of course, the correctness of the statement depends on the definition of the word "convective." Basing my statement on the definition given in the AMS GLOSSARY OF METEOROLOGY under the heading "convective activity," it will be difficult to disprove it. I would, however, be grateful for any information on 24-hour record rainfalls in the tropics falling during mainly convective processes, especially during thunderstorms.

Col. Sadler made his extreme statement on easterly waves, and I repeated it, in order to stimulate a discussion on this important subject. It must be deeply regretted that Col. Sadler's and my attempt remained without any response. Also, Dr. Simpson, who made so many discussion remarks that eleven of them have been quoted in the Proceedings, remained silent at this point. His present attitude seems to indicate that in the meantime he found observations that prove that easterly waves can be self-sustaining systems without essential support from the middle and upper troposphere. A publication on this subject would be an essential milestone in the clarification of tropical weather processes.

Remark for "non-tropical" readers: The existence of waves in the easterlies is beyond any doubt. The discussion concerned and concerns their structure and their classification

since there are several types of them representing probably very different physical processes. Also, another concept of tropical meteorology is on the verge of undergoing a modification, the Intertropical Convergence Zone. Observations show that there are intense strips of convergence approximately parallel to the equator. However, they also show that frequently there are two parallel such zones (Tschirhart described them in great detail for Central Africa), and satellite data seem to indicate that there are meridional strips that at no latitude have such a convergence. All these new ideas require time to be developed, and a justification for substantial changes of the present textbooks will not be given in the immediate future.

More on tropical meteorology

Donald C. Gaby, *U. S. Weather Bureau, Miami, Fla.*

As a meteorologist with many years' experience in the problems of forecasting tropical weather, I feel compelled to comment upon the letter by Dr. R. H. Simpson concerning an earlier article by Dr. W. H. Portig.

I should like first to say that if we are to accomplish anything worthwhile in tropical research, we must of course seek out the truth and attempt to abandon preconceived ideas which may be untrue and, more important perhaps, vanity which prevents a meteorologist distinguished in some fields from admitting his ignorance or lack of understanding in another. To accuse Dr. Portig of "scientific effrontery" seems especially unjustified and even a contradiction in terms since a scientist is by definition concerned with the truth. Indeed, Dr. Portig needs most of all to be praised for having the courage and conscience to say what many of us practicing forecasters can only feel. I should indorse almost all of what Dr. Portig had to say, and in particular should agree that what we need most are new ideas and fresh blood.

I should like also to echo the doubts expressed by Sadler and others as to the existence of "easterly waves" as self-sustaining systems. As a practicing forecaster I have often felt that the attention and credit given to "easterly waves" as a weather producing phenomenon has done more harm than good. In South Florida, at least, many forecasters would agree that "easterly waves" are a rarity, exceptional even during the summer. Time and again an "easterly wave" that has been followed with satisfaction and success across the Caribbean region will reach Florida only to become poorly defined and a forecast based upon textbook descriptions of it will fail. For this reason and others it seems unlikely to me that much will be learned about this phenomenon by observing its passage in Florida.

First of all and most important, strenuous efforts should be made to revise the observing codes to allow better description of tropical weather, both surface and aloft. Then the quantity, quality, and communication of the observations must be greatly improved. As has been noted, until we obtain some reasonably adequate and reliable data, there is little hope for fruitful research or accurate weather forecasts in low latitudes.

Although I am a member of the Weather Bureau Airport Station, Miami, the opinions expressed above are strictly my own.