

11th August 1958
General Delivery
Wailuku, Maui, Hawaii

Dear Bob:

Thanks for your good letter of July 31st. It is pleasant to hear from you in Hawaii again. I agree that there seems to be some instrumental difficulty with the saddle instrument that makes it give a very large 24 hour component. We are considering the matter in the light of your suggestions about station 83.

Enclosed are the harmonic dials for Kole Kole based on three years data. I hope you agree that the results for 24, 12 and 8 hour components are quite good. The first two oscillate on a seasonal basis; while the 8 hour revolves on an annual basis. It gets earlier and earlier much the same as sidereal time and one is tempted to draw the obvious conclusion that some phenomenon associated with the fixed stars is affecting the earths atmosphere in a tidal way.

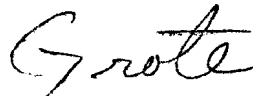
The 6 hour component gives a finite value of amplitude and phase for each month. However there is no systematic annual variation. If all 12 vectors are combined the net result is close to zero. As far as Kole Kole data is concerned, the 6 hour component appears to be merely the residual of random errors.

You will note that there seems to be some small difficulty with February as the amplitude of the 24 hour component appears too large and the 12 hour too small. We are investigating this matter also.

If some harmonic dials based on sea level observations in Hawaii could be located, I'd be much interested to see how they compare with the Kole Kole dials.

A variety of reprints are going over to you via sea mail today as I believe that I neglected to send you any when you were in Seattle.

Aloha.



Grote Heber