

September 21st, 1953
Wailuku, Maui
Territory of Hawaii
U. S. A.

Dr. J. D. Kraus
Dept. of Electrical Engineering
Ohio State University
Columbus, Ohio

Dear Dr. Kraus:

It has been requested by the A.A.A.S. that I give a talk on the subject of Galactic Radio Waves before the Boston meeting. I gather from announcements of the August A.A.S. and October U.R.S.I. meetings that your organization is doing some excellent work at 250mc. In order that everyone in America may be properly represented, I would like to secure a brief account of your experiments. A couple of pictures showing your apparatus and a galactic contour chart, or whatever you may have, of your results will also be greatly appreciated. Proper credit will be happily extended for whatever you may supply.

Recently, I have been studying your book Antennas. On page 83, case 4 you discuss the pattern of a single line array with progressive phase shift. The angular swing is much smaller than the applied phase difference. Your results are in general agreement with those of Southworth, Proc. IRE, Sept. 1930, figure 4. However the practical case would be an array with a reflector curtain behind it. According to Southworth's figure 15, fourth line, the angular swing is now equal to the applied phase difference. This remarkable change by the addition of a reflector curtain is a bit difficult for me to believe. I am wondering if you have any further information, or can refer me to additional references upon the subject.

Enclosed are a couple of snap shots of my installation out here and a post card showing the environment.

Best Regards,

Grote Reber