

6th June, 1955
G.P.O. Hobart
Tasmania, Australia

Mr. Charles H. Schauer
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Dear Hap:

Since writing last, my results have been considerably beyond expectations. At 2mc the cosmic static is very strong and I have found a way to circumvent atmospherics. This carries the measurements down in frequency by a factor of five over what had previously been done. Ellis and I also have a scattering of results at 1.5mc and are now setting up to measure at still lower frequencies. He is some kind of a young genius and we get along very well together. It appears that there are at least three other modes by which a ray can get thru the ionosphere beside the one we are presently using.

The milkyway outline can only be seen dimly as there are large amounts of cosmic static coming in from all directions. This is quite different that I anticipated. Apparently at these low frequencies the earth is within the corona of the sun. Thus there is a strong omnidirectional component which was quite unlooked for. Ellis has computed that the critical (opaque) frequency of interstellar space is about 20kc. We intend to press on with this subject as rapidly as possible while conditions are auspicious.

In view of this success I think I'll stay here the rest of the winter which is quite mild in Hobart. If snow falls in town the item gets in the newspapers as only a couple of flurries occur each year because of the maritime climate. However there has been enough snow to make the tops of the peaks behind the town white for two months now. Fortunately the place I live at is warm and comfortable and they serve good food like steaks for breakfast three times a week.

Enclosed are a few more reprints.

Best regards,

Grote
Grote Reber

*Sent reprints from
Nature 15 Jan 1955
Geophys Jnl Dec 1954
~~Electronics~~
Tele-Tech May 1955*