

29th March 1967.

Dear Dr. Reber,

Allow me to congratulate you on the lecture you gave yesterday at the Astronomical Society of Tasmania. Incidentally, I am the man who helped you to hold up your graphs before the audience. I think that your patient and painstaking work will be of great importance and I certainly wish you every success in your endeavours.

When I looked at your graphs, the thought struck me, - how similar they look in their overall patterns to the so-called isotopic magnetic intensity lines which have been mapped by now all over the surface of our Earth. I would like now to briefly state my ideas which, to some extent are based on a "hunch", but to a far larger one on a grave and fundamental error of our geo-physical "pundits" (borrowing this term from you.).

The conventional notions that the magnetism of the Earth and the major variations in field strength as measured on the surface are due to convection currents created by a fluid principle dynamo in the core of the earth is nothing better than an untenable, antiquated myth. As one of the consequences of a new world view I had striven for some fifteen years now to discredit this false notion, needless to say, with very little success so far. The facts are that the magnetic properties of the Earth, except for minor and secondary effects, are all due to induction from external sources. I hold then, in brief, that there are three such causes of induction :

- a.) galactic radiation ( the weakest cause )
- b.) solar electro-magnetic field effects, ( a medium strength cause)
- c.) the radiation zones surrounding the Earth, the so-called Van Allen belts. ( the strongest cause). The radiation zones are both the "wiring" and spiral bar magnets and the Earth is the rotor absorbing continuously the induction currents from the outer field.

On the whole then, this is a complex situation. I have stated it axiomatically to come quickly to my "hunch". If the facts are as I assert, two basic consequences arise:

- 1.) Your medium of investigation, the 144 megacycle waves, should have their intensity patterns, their isotopic strength lines modulated during their passage ~~during~~ the Van Allen belts, and far more so than short wave radiation. If you can find a pattern of unexplainable variations in an otherwise relatively consistent pattern of results, may I suggest that this in itself may be a fact of great importance. It could help in the future to throw more light on the intrinsic mechanics of the radiation belts, so far very little understood.


- 2.) You have discovered that the peculiarity of <sup>a</sup> ~~an~~ sporadically open window in the ionosphere over Southern Tasmania ( and Northern Canada ) can be put to good use and led to important new facts. But surely, this open window in the ionosphere has been in these two peculiar situations for a relatively long time on the geo-physical scale. This brings me to the hunch. Has this relative freedom from the fogging effect of the ionosphere produced any traceable records on the earth surface itself? Merely as a hunch, may I suggest if you would care to look closely at the isotopic magnetic intensity lines on record in the two regions. Do they show any pattern or peculiarity which does not occur anywhere else on the earth? If that

should be the case, I do not suggest of course that it is due solely or even to any extent to the medium wave length radiation you have been observing. It could strongly indicate however that the work you have pioneered has many other facets and implications, that the two regions could and should be used for other aspects of fundamental research.

This letter was written quickly and spontaneously. I have no claims whatsoever to be an expert in your field. The special facts I assert have arisen from a far deeper and broader background of a new world view, one that will, inevitably, prevail in the end because it is founded on the sanction of that mysterious, ultimate authority, - objective truth. How one comes ever close to it, is in itself a mystery, certainly often a matter of chance or of good fortune, as you had stressed in your lecture. In fact I had great difficulties in getting to your lecture, the odds were almost 100 to 1 against, but I made it in the end, though I had to leave early. Per chance also, my thoughts or hunches may, in the future, be of some use in your work. If so, I shall be very glad.

With all good wishes,

Yours sincerely,



( R. Foster. )