

1st September 1987

Dr. John McLeod, Chief
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National Research Council
100 Sussex Drive
Ottawa, Canada, K1A 0R6

Greetings John:

The ionosonde at Ashton produces creditable traces above 4mc. Below 4mc the performance deteriorates severely. Below 3mc it is essentially useless. These are frequencies we need for effective low frequency cosmic static information. The problems are partly inadequate antennas, lack of a T/R switch, no control over sweep range, pulse width and repetition rate.

I intended to construct a proper ionosonde to cover range 1 - 3 mc. Such would be time consuming. Fortunately, I have located an excellent device available at University of Tasmania. It has a sweep range adjustable 1 to 30mc. The repetition rate and pulse width are both adjustable over wide ranges. Peak power is 50 watts. It is all solid state. The device produces excellent clear, unambiguous traces when used on a multidipole antenna such as array at Ashton. It is composed of three boxes 20" wide, 15" deep, 8" high. Total weight 50 lbs. This device is not in use.

I've secured a promise of loan provided it is returned in a reasonable time. However, I'm not a staff member of either University of NRC. This matter should be handled in a proper formal manner. Please write to:

Prof. G.R.A. Ellis
Physics Department
University of Tasmania
G.P.O., Box 252C
Hobart, Tasmania
Australia 7000

Tell him I sent you. Ask for six months loan of above ionosonde. We can put it to good use next winter.

Contact head of customs and tell him to put this device in bond until I arrive. Last time the vandals at customs opened my cartons, threw away the binding ropes, tags, part of packing and contents list. They didn't even repack and close cartons. The tin box they tried to open with a crowbar, bent one corner out of shape. All needed was take out two screws and cover would slide off. Only fun they have in life is busting into other peoples baggage. Given a chance, they will ruin ionosonde. Sorry to close on this sour note. Hope we'll do better next time. Remember me to fellows.

Grote