



NATIONAL RESEARCH COUNCIL  
CONSEIL NATIONAL DE RECHERCHES  
CANADA

OTTAWA 2.

Aug 4<sup>th</sup> 1964  
2.30 P.M.

Dear Grote,

It was certainly a pleasure to receive a letter from you after all of three years. You were certainly in my thoughts. For just one hour ago I gave our photographer two photographs you gave me 15 years ago. They are small and I would like to have enlargements for the office wall. One is a picture of our original 4 foot parabolic reflector at Gatch Hill with Hagen, Demuse, Shapley, Seeger, Wedd & myself; the other is of your model of the large steerable reflector taken on a folded sheet. I have been ordering my notes & reprints in preparation for binding and came across your reprints photographs etc. If the enlargement of the 4ft reflector is not satisfactory, I hope you still have the original. I would like to borrow it, or have an enlargement made. Before too long, I would

like to make a summary of the 10cm solar work done here. The original equipment will soon be retired since we now have two 6 foot reflectors doing solar patrol - one at 2800 mcs in Algonquin Park - Lake Traverse - Ont and another at 2700 mcs located at Penticton B.C. With the onset of solar minimum, I have been using the original set just to see what the variations are. Without too much analysis, it seems the relative accuracy will be about  $1\frac{1}{2}\%$ . I am enclosing some recent tabulations of our flux. Perhaps you can relate some of the small increases in the slowly varying component with ionosphere parameters you observe. NASA now has a contract with A.I.L. to duplicate our solar patrol at 5000 mcs, 2700 mcs + 1400 mcs. There will be 3 stations around the world - and one training station in the U.S.

The work you did on the large antenna while in Washington was certainly unique. I was also reminded of this by seeing a patent in the Library which develops an antenna similar to yours and at the end states "no references cited". Undoubtedly the time is approaching when there should be a suitable "History of Radio Astronomy" to set and keep the record straight.

Whenever, I contemplate such an undertaking, even from my own limited point of view, I feel overwhelmed. In the first place there is the technical point of view and secondly there is the very difficult and controversial subject<sup>ive</sup> aspects. At times, the latter seem far more important. In any case, outside of writing a summary of our 10 cm solar patrol work, I have no ambition for the larger field.

I will not answer your questions until I have done some enquiry. I was so pleased to receive your letter that I answered immediately in this manner.

With best regards

Arthur Covington.