

University of Toronto  
David Dunlap Observatory  
Richmond Hill, Ontario  
February 13, 1948

Mr. Grote Reber  
National Bureau of Standards  
Sterling, Virginia

Dear Reber:

In connection with the Cornell Microwave Astronomy project, I have just completed a summary of the literature on the field, which is soon to be published. It seems to me that it would be a much more understandable presentation if published with it were a picture of the antenna of a "microwave telescope." Naturally, I thought of some of the nice photographs of your Wheaton equipment, particularly the one which appeared in Ap.J. 100. If you should feel amenable to this idea, I'd very much appreciate a glossy print of the photo, sent to the above address. Of course, the block itself would be nice, but I'm afraid it might be held up in customs, and time is at something of a premium.

I was both pleased and surprised to find that you were the first person to publish observations of solar noise; previously, I've seen Appleton or Southworth mentioned, but they both published their work some time after your Ap. J. 100 paper. Incidentally, it's nice that this very first observation at the longer wave-lengths showed the million-degree temperature so nicely. I noticed from your traces that the maximum signal from Milky Way and from sun were about the same. Working from the ratio of the acceptance cone of your antenna to the angular size of the solar disc, one hits one million degrees just on the button. No news to you, naturally.

For the review I'm writing, we took the trouble to replot your 160 mc. data on galactic coordinates, and superpose it on a drawing of the Milky Way; it's quite impressive. I'd like to refer to your 480 mc. data, too, if you don't mind. I've drawn on my memory from the meeting at Cornell a couple of months ago; however, I don't seem to have noted the maximum intensity you got at this frequency.

If you have any comments or suggestions, I'll try to incorporate them in the proof. And I would very much appreciate any help you could give in the matters mentioned above. I feel that your discoveries in the field of cosmic and solar noise are most valuable, and I'm quite sincere in saying that your enthusiasm in prosecuting the work when no one was aware of its great importance will be the cause of fundamental advances in astrophysics.

Very sincerely yours,

*Ralph E. Williamson*  
Ralph E. Williamson

*Congratulations re. TIME of Jan 5!*