



COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH
DIVISION OF RADIOPHYSICS

JLP:SA

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IN REPLY, REFER TO _____

UNIVERSITY GROUNDS,
CITY ROAD,
CHIPPENDALE, N.S.W.

20th August, 1947.

Dr. G. Reber,
212 W. Seminary Avenue,
Wheaton,
ILLINOIS, U.S.A.

Dear Dr. Reber,

Thank you for your letter of July 18th which I have just received.

The data you give on your 1943 observations is interesting. I have examined the statistics of measurements on 200 Mc/s taken between October 1945 and March 1946 and further measurements taken about a year later. Each shows the sharp cut-off on the low side mentioned in my letter to Nature of November last which I interpret as due to a semi-constant source. My best estimates of the apparent temperature of an assumed $\frac{1}{2}$ degree source are 10^6 degrees for the first series and $\frac{1}{2} \times 10^6$ degrees for the second. The discrepancy is not outside possible combined experimental errors but I think that there is a fair chance of a real effect. Your measurement taken at a time of lower general solar activity is even higher. It looks as if the background constant source, which I presume to be thermal, changes in level during the solar cycle.

Would I be in order in quoting you, in a paper which I have in course of preparation, as saying that the observed level was not subject to large fluctuations so that the quoted level was one below which the intensity seldom, if ever, descended by any large amount?

I was interested to learn that you are now working with the Bureau of Standards.

I am expecting to arrive in San Francisco in October and shall be in Washington in November. In view of the programme with which you are proceeding, it will be well worth while our discussing plans in detail on my arrival. We are carrying out measurements at 1200, 600, 200, 100, 85 and 60 Mc/s, some regularly, some spasmodically. I envy you your giant Wurzburg radar mirrors. We tried unsuccessfully to get one at the end of the war.

I suggest we leave any arrangements until I reach the States. I shall make contact with you then. My headquarters will be C/- Scientific Research Liaison Office, Australian Embassy, 1785 Massachusetts Avenue, Washington. At present I am in a bit of a rush.

Yours sincerely,

A handwritten signature in cursive script, appearing to read 'J. L. P. Murray'.