

Sent xerox to John Galt.

12th January 1981

Dr. Larkin Kerwin, President
National Research Council
Ottawa, Canada
K1A 0R6

Ref: Yours of 15/9/80

Dear Dr. Kerwin:

On 18/9/80 I received a copy of "A Proposal for a Canadian Very-Long-Baseline Array" by N.W. Broten et al. It came from John Galt at DRAO. I have examined the document in detail and am greatly impressed. The proposal is well thought out and I'm sure it will work as predicted. The main question is: Why do it?

Back in 1930s I tried to interest Otto Struve, Harlow Shapley, Gerard Kuiper, et al. in radio astronomy. They were convinced it would never amount to anything because resolution was too poor. The above proposal provides radio resolution two orders of magnitude better than is possible with best optical telescope and right here on earth! No space ships are needed. This radio installation will give detail commensurate with resolution expected from orbiting optical observatory. It is unfortunate above people are no longer with us.

Recently a report #17 came from Jim Douglas at University of Texas. Along a strip 9° wide centered on $+18^\circ$ declination they have turned up 7250 radio sources. It now seems that there may be as many radio sources in sky as there are visible stars. Your proposed array would be of great assistance in determining where interesting ones are, their size, intensity and detailed spectral characteristics. It is now clear that a lot, perhaps most, of material and energy in universe is in a state forever closed to optical methods. We must get on with exploring and understanding this unseen material.

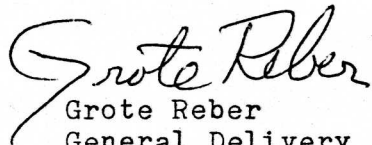
Finally there is question of scientific strategy and logistics. Science goes by fads, like womens fashions. Someone makes an interesting discovery, often by chance. A horde of unimaginative followers jump on bandwagon and try to exploit discovery. If a situation can be found which is unique and cannot be duplicated easily, it is like a patent. This allows originators to proceed without a lot of noise from rabble.

The situation can be special equipment and/or special geophysical environment. The reason I am here is ionosphere over Tasmania has a lower electron density than anywhere else in southern hemisphere. Accordingly, I have a monopoly on making low frequency radio observations. They have been unexpectedly successful.

As pointed out on page 5 of proposal, your type of array is only possible in Canada and USSR. Also, the latitude near 50° is optimum. Accordingly, Canada has a patent on geography, and to a considerable extent, know how. It is a valuable and important patent which should be exploited.

I strongly urge a start be made on VLB promptly.

Sincerely yours,



Grote Reber
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Bothwell, Tasmania
Australia 7411

P.S. On 14/10/80 I wrote to Jack Templin. Apparently my letter has been misplaced, as no reply has been received.

G.R.