

George C. Southworth
19 Williams Road
Chatham, New Jersey

September 30, 1963

Mr. Grote Reber
Tasmania Regional Laboratory
"Stowell", Stowell Avenue,
Hobart, Tasmania,
Australia

My Dear Reber:

I was very glad indeed to receive your nice letter of September 23. It was good too to receive in the same mail an announcement from the Franklin Institute, saying that they were giving you, this year, one of their two Cresson Medals. I think that it was long overdue, but it was still a very fine thing to do. I plan to write the Institute, to tell them that I fully concur in this award and that I expect to be present at their forthcoming dinner-meeting. I congratulate you for this award. I trust that you will find it possible to attend the meeting and receive the award in person. If you are not actually present in the flesh, you will certainly be present in spirit.

I shall be glad to answer, as well as I can, the questions you have raised about Jansky's early work in radio astronomy. I looked rather thoroughly at Jansky's original notes at the time I was writing "Early History of Radio Astronomy." This was probably late in 1954. Much has happened in the nearly ten years that have followed.

I find that Al Beck now has Janskys early notebooks and work reports. He has agreed to answer your letter more fully. You see, I was not at Holmdel nor even at the Bell Telephone Laboratories in the period when Jansky was doing his pioneering work. At the time, I was at the A. T. and T. Co., at 195 Broadway, in New York and I knew of his work only as a "visiting fireman". I was, however, greatly impressed. I was not transferred to the Laboratories until 1934, three years later than the date 1931, which you mention.

However, I remember a great deal about the Bell System thinking at that time and this may throw some light on your question. The parent company had initiated commercial radio-telephone service on short waves beginning in a small way in 1928 and in a very real way in 1930. It was during this time that Jansky was getting into motion.

After having explored superficially the short wave range, and found that it was useful, it was natural of course that the Company should move on to the next range, the so-called ultra-short waves. Not knowing too well what was ahead, it is natural to think that Jansky would move to the new range also. Beck feels that Jansky's new range was about 75 mc, but he will check the records further.

It is my recollection that Jansky took only token steps in 1931 toward developing an ultra-short wave receiver. In all probability his thinking centered around double detection receivers with substantially the same intermediate frequency as previously used. I doubt if he got as far as choosing an antenna and I doubt if he planned more than a mere adaptation of his older and proven techniques to a new range of frequencies. Certainly when I moved to Holmdel in 1934 I saw no evidence of new working equipment at the higher frequencies.

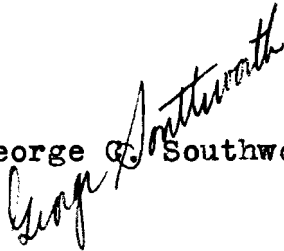
It is my recollection that Jansky did not take kindly to moving to a new place in the spectrum until the older had been more fully explored. It is to his everlasting credit that he stuck by his guns until significant results had been obtained. Until 1935 considerable time was spent writing papers. Soon after he fell into ill health and ultimately passed on.

Be sure to give me a ring when you are next on this side of the earth. Until then, my very best wishes, as well as my hearty congratulations go out to you.

Very sincerely

GCS:jlb

George G. Southworth

A handwritten signature in cursive script, reading "George G. Southworth", written in dark ink. The signature is slanted upwards from left to right and is positioned over the typed name "George G. Southworth".