

January 19th, 1952
212 W. Seminary Ave.
Wheaton, Illinois

Chief Engineers Branch
General Post Office
Wellington, New Zealand

Gentlemen:

For a considerable period I have been interested in the radio waves from the sun and milkyway. Enclosed is a reprint on some of my observations of a few years ago.

Recently I have been investigating the fine structure of the radio transients originating in the sun. Apparently a very simple empirical relationship holds thruout the short wave region. Unfortunately data at the longer waves is very meager. Also since we are well on the way down the present solar activity cycle, it seems unlikely that more will be obtained in the near future. For this reason I am writing in regard to the article entitled "Some Observations on Solar Noise" published on page 140 of the November 1947 issue of the New Zealand Journal of Science and Technology.

I am interested in learning more about these surges which seem to have been associated with the great spot group of that spring.

1. Have these surges ever been observed since, and if so, when, of what intensity and at what frequencies?
2. Were any recordings of these surges made, such as photos of oscilloscope patterns or traces on moving chart recorders?
3. If so, I would like to secure fotostats of whatever data may be available and will be pleased to remit by postal money order upon receipt of a statement from you.
4. It is my belief that the average surges at 6.7 mc were approximately 45 seconds long and that surges at higher frequencies were proportionately shorter. Were any notes made by the operators on this phenomenon?
5. These surges probably came in groups or clusters. About how many surges were in a group and how long did the groups last?
6. Figure 2 shows 17 observations in range of frequencies 6.7 to 10.5 mc. These are the ones I am particularly interested in, even comments of the observers which may be written in their log books.

Whatever you can supply me in the form of additional details will be greatly appreciated.

Yours very truly,

Grote Reber

This article says the surges lasted up to one minute. The figure is in line with formula $T = \lambda / f$ $\lambda = 45$ meters for $f = 6.7$ mc.
sent Nature, Dec 1946