

2nd September 1957
G.P.O., Hobart
Tasmania, Australia

Dr. E. R. Hope
Defense Research Board
Ottawa, Canada

Dear Dr. Hope:

Your translations of Russian articles continue to find their way to me here. Most are of at least general interest. However, the third edition of T65R I found particularly valuable.

During the past year I've been making observations of cosmic static at 520kc and more lately at 143kc. Whether or not any cosmic static is received depends upon conditions at respectively 3000 and 8000km altitude. The characteristics at sunset and sunrise are not mirror images. These differences may easily be explained by recourse to the jet theory. I deduce the jet to be a sheet extending 20 to 30 degrees each side of the ecliptic plane. Most of the material of the jet I believe to be of solar origin and not an expenditure of the earth's atmosphere. If the jet is due to the combined outward velocity of solar material plus the equatorial velocity of the earth; then on the dawn side of the earth where these velocities oppose there should be a sort of depression in the earth's outer atmosphere. The effect of this can also be seen on my records. The amount of material in the jet increases and decreases as solar activity waxes and wanes. For instance on 28th August 1957 a burst of solar activity occurred. During the previous couple of weeks the jet had been relatively weak. However on the 30th, the solar material arrived here and spilled all over around the earth. During the night of the 30/31st the jet must have been more like a cone. These and other extraneous effects have become much more pronounced during the past year. Thus it is increasingly difficult to sort out the cosmic static. Consequently, I am folding up this operating for a couple of years until solar activity is on the down grade again. The results have been written up and sent to the Journal of Geophysical Research. I'll see that you receive a reprint in due time.

I leave here on 14th of September and Sydney on 8th of October via RMS Orsova for Honolulu. My interim address is

Ionosphere Prediction Service
5 Hickson Road
Millers Point, New South Wales
Australia

When I get back to Maui about the 1st of November, I intend to fire up my installation atop Haleakala again and make another years observations. There may or may not be a difference in the results compared to what I got in 1953 & 4 near solar activity minimum. These results will then be written up in detail, with due regard for T65R ofcourse! Maybe I can get some fotos of the false zodiacal light from the top of Haleakala. Please change my mailing address for translations and other mail to

Grote Reber
General Delivery
Wailuku, Maui
Territory of Hawaii
U. S. A.

Please remember me to Scott, Hagg and Doris Jelly when you see them. Thanking you again for past considerations I am

sincerely yours,

Grote Reber