

c/o Hawaiian Telephone Company  
P. O. Box 2200  
Honolulu 5, Hawaii  
Monday morning, August 4, 1958

Dear Grote:

Thanks for your letter and enclosure. Although I am not sure I follow all the details of your scientific treatise, I was quite interested in your comments on precipitation static.

I was a radiotelegraph operator at coastal marine radiotelegraph station KHK at Wahiawa, Oahu, for intermittent periods extending from September 1933 to October 1940, at which we monitored 500 kc. 24 hours a day, and had an excellent opportunity to hear atmospheric. We called it "eating static", and I think the experience has contributed at least a little to the impairment of my hearing, especially in the left ear.

My first experience with precipitation static, which we also called rain static, came during a severe electrical storm. It would start with a moderate buzzing sound of low frequency in the 500 kc. receiver, and rise steadily in pitch and volume until a sudden flash of lightning would kill it completely. A few minutes later the same thing would start all over again.

It is apparently unusual here. I mentioned the experience to J. J. Carvalho, an operator who had worked at KHK before I did, and his attitude was one of general disbelief; there must have been something wrong with the equipment.

Continuous atmospheric static was also a rarity, so much so that one day when it came so strongly that Wahiawa people were unable to pick up KGU and KGMB through it, I found myself face to face with two angry residents who were demanding to know what we were doing at the station to cause the noise, and we had better cut it out pretty quick if we knew what was good for us. They had seen us stringing up a new receiver antenna that morning, and were sure that had something to do with it.

Your letter mentions prospecting for carbon under lava flows. That sounds like a fascinating pasttime. Dr. Jaguar once told a group of us when we were students at the University of Hawaii that he has no doubt that in due time there will be another lava flow from Haleakala. I used to think it was out of the question because there are no steam jets such as one sees at Kilauea, but now don't know what to think, after having visited Sakurajima, in Kagoshima Bay, at the southern tip of Kyushu Island in Japan. At the time we visited Sakurajima in 1933 it was as harmless looking as Makena hill, but we were told it had erupted violently in 1913, killing many people. Sometime after we got back from Japan -- I don't remember whether it was years or months -- I read in the local newspapers that Sakurajima did it again, and I believe there has been at least one more eruption there since then. So you had better look out.

Volcanoes have always fascinated me, to the point that I have purchased a number of 16 mm. color films of our local volcanoes in operation, and take delight in showing them to friends. A black and white film I prize is a duplicate purchased from R. J. Baker about 12 years ago, showing Kilauea in action in 1918 when the lava pool was only 5 feet from the top of Halemaumau.

If you are interested in seeing any of these pictures let me know when you will be in town next and I will run them off for you.

I just had this office typewriter overhauled, and at the same time had new keys put on which read "\*", "+" and "=" . The cost of the new keys was only 80¢, and now I wonder why I struggled along all these years without them. They replaced "1/4", "1/2" and "3/4", which I practically never used. I also asked for an exclamation point, but was ruled out. I complained that owing to misalignment, using the "." and "." resulted in ":", which always looked odd. But they did a good job of straightening, and now I can write "!" very nicely.

The change has been so satisfactory that I have now sent my personal Underwood portable in to have "+" and "=" installed. It already has "\*" .

Aloha,

*Charles*

*(Charles Penthallow)*