

15 Sherbourne Avenue,
Hobart, Tasmania,
Australia. 1st July, 1959.

Dear Grote,

Thanks for your letter of the 1st June, 1959, in which you advised about your equipment.

The Radio Branch did some field tests with Dick Dowden with a view to finding a suitable site for the station. I think Dick has settled on one on the new airport property, near the Seven mile beach - I think it should be located even further away from the city's industrial area - but the land belongs to the Commonwealth and there would not be any housing or electric supply difficulties.

Quite recently we did some VHF tests from the top of Wellington and got ourselves in the midst of snow, sleet, hail and rain. Whilst doing these tests our channel, 81.18 mc/s, was completely blocked by a sound similar to our old friend - precipitation static - the noise was unbelievably high and from a purely interest point of view I tuned into the broadcast band - and the local stations 7ZL (10,000 watts and approx 6-7 miles away) and the others - 7ZR, 7HO and 7HT were completely blotted out. This noise lasted for approx 5 - 10 minutes. The weather during the noise period was fine and clear, but once the noise stopped we became completely engulfed in this snow, sleet and hail etc. I have had discussions with the Weather Bureau and find that on the day in question the weather was as follows:- A cold southwest front started to cross the State at 3 am in the morning and caused an unstable southwest stream. Thunder reports were heard in many parts of the State - in fact, in Rosebery the Thunder caused a main electrical failure - or may be the lightning caused the failure. Around Mt Wellington, the area of observations, Cumulo Nimbus clouds were plentiful and these have some form of ice crystal state.

I wonder if you can do me a favour, Grote, as follows:-

Please type, on your special typewriter, six separate copies of the attached format which is merely the upper and lower cases of the typewriter. At the bottom, as shown, show the make of the machine and the number, also whether it is electrical or manual.

I have a friend, who is a keen handwriting and typewriter observer, and your typewriter seems to have him interested. Apparently, the format is prepared for all known makes of units for various reasons. However, I would appreciate it if you could let me have same soon because my friend is leaving for Brisbane at an early date.

Regards

Harry
Harry Melling.

NATIONAL RADIO ASTRONOMY OBSERVATORY

POST OFFICE BOX 2
GREEN BANK, WEST VIRGINIA

7TH JULY 1959

LABORATORY
TELEPHONE CASS 65BUSINESS OFFICE
TELEPHONE CASS 64

DEAR HARRY:

THANKS FOR YOUR INTERESTING LETTER OF THE 1ST. YOUR DESCRIPTION OF THE PRECIPITATION STATIC IS OUTSTANDING. I NOTE THAT DURING THE MAXIMUM OF THE DISTURBANCE THE SKY WAS CLEAR AND FINE. I HAD AN EXTREME EXPERIENCE SIMILAR TO THAT AT KEMPTON NEAR NOON ONE DAY. THE ATMOSPHERICS OF THIS KIND WERE SO INTENSE THAT THE INPUT CONDENSER ON MY RECEIVER FLASHED OVER REPEATEDLY. TWO OF MY FELLOWS WERE WITH ME AT THE TIME. WE WERE EATING LUNCH AND NOT PAYING MUCH ATTENTION TO THE RECORDER. HOWEVER IT WAS NOTICED THAT OVER A PERIOD OF ABOUT TWO MINUTES THE PEN GRADUALLY MOVED OFF SCALE. I LISTENED IN TO SEE WHAT WAS MAKING IT DO THIS. THE SOUND WAS INTENSE FRYING NOISE. EVENTUALLY THIS BECAME SO STRONG THAT IT BLOCKED MY RECEIVER WHICH DOES NOT HAVE AUTOMATIC VOLUME CONTROL. A MINUTE OR SO LATER ONE OF MY FELLOWS ASKED ME WHAT THE FAINT SNAPPING SOUND WAS. EXAMINATION SHOWED THE TUNING CONDENSER ON THE INPUT WAS MAKING FINE ARCS BETWEEN THE PLATES. THIS ONLY LASTED ABOUT TWO MINUTES. THE SUN WAS SHINING AT THE TIME. HOWEVER WE WENT OUT TO LOOK AROUND AND A BIG BLACK CLOUD WAS RAPIDLY RISING OUT OF THE WEST. IN FIVE MINUTES MORE INTENSE RAIN WITH SOME HAIL WAS COMING DOWN. THIS LASTED PERHAPS TWENTY MINUTES. AS SOON AS THE RAIN STARTED THE PRECIPITATION STATIC BEGAN TO DECREASE. THE WHOLE AFFAIR WAS OVER IN LESS THAN AN HOUR. DURING THE RAIN THE TEMPERATURE MUST HAVE DROPPED AT LEAST 20 DEGREES AS WE HAD TO PUT ON OUR JACKETS. I HAVE NEVER SEEN ANYTHING LIKE IT BEFORE OR SINCE. THE DATA BOOK AND RECORDS ARE STORED AT KEMPTON.

I NOTE THAT DICK DOWDEN APPARENTLY HAS PICKED OUT A PLACE NEAR THE AIRPORT. I AM AFRAID THAT THIS IS A VERY BAD CHOICE. THE AIRCRAFT WON'T BOTHER THE IONOSPHERE SET BUT THE IONOSPHERE TRANSMITTER WILL VERY LIKELY BOTHER THE RADIO COMMUNICATIONS CIRCUITS AT THE AIRPORT. DICK IS PROBABLY NOT AWARE THAT THE STATION WAS MOVED FROM THE OLD CAMBRIDGE LOCATION BECAUSE OF SEVERE OBJECTIONS BY THE AIRPORT PEOPLE. THEY MADE SUCH A LOUD HOWL THAT THE OPERATION OF THE TRANSMITTER WAS RESTRICTED TO JUST ONE FIVE MINUTE PERIOD EACH HOUR UNTIL IT WAS FINALLY MOVED. BILL ELLIS CAN GIVE YOU THE SAD DETAILS. I STRONGLY RECOMMEND THAT THEY FIND SOMEOTHER PLACE FAR AWAY FROM AIRPORTS. THIS WAY A LOT OF PEOPLE ARE GOING TO BE UNHAPPY.

I AM ENCLOSING A SHEET WITH THE IMPRINTS OF THIS TYPEWRITER AS YOU REQUEST. I HOPE THEY WILL BE OF SOME USE TO YOUR FRIEND. AS A MATTER OF CURIOSITY, I WOULD BE INTERESTED TO KNOW EVENTUALLY WHAT HE FINDS OUT ABOUT THIS MACHINE. AS FAR AS I KNOW IT IS A QUITE ORDINARY MACHINE.

I WILL PROBABLY BE ARRIVING IN SYDNEY ON THE 12TH OF NOVEMBER ABOARD THE RMS ORSOVA. ABOUT THE 20TH I'LL BE IN HOBART FOR A FEW DAYS AND PICK UP SOME THINGS AT KEMPTON. THEN I GO BACK UP TO MELBOURNE AND GET ON THE BOAT FOR MACQUARIE ISLAND ABOUT 28TH OF NOVEMBER. WE SHOULD BE BACK JUST BEFORE CHRISTMAS. I INTEND TO THEN SPEND A MONTH IN TASMANIA BEFORE RETURNING TO U.S.A. ALONG IN FEBRUARY OR MARCH. WE MUST GET TOGETHER FOR SOME MORE TRIPS AROUND THE ISLAND.

BEST REGARDS,

Grote
GROTE REBER