

Award in the Frequency Test

Decision made by M.I.R.E.

IN giving consideration to the award of the prize, it has been necessary to take into consideration various factors in order that all listeners throughout the Dominion should be on an equal footing.

1. The more distant listeners would require to use more valves in order to get reception and would therefore be handicapped with respect to those close to 2YA and especially to many in Wellington using a loudspeaker or head-phone crystal combination.

2. Obviously those happy individuals in possession of expensive equipment should be expected to get the best results.

3. In considering the results obtained and information gained by reason of the tests it has been necessary to take into account the different individuals technical knowledge as evinced by the subject matter sent in and give equal credit to the layman's observations and the useful technical comments forwarded by others obviously qualified so to do.

It has to be pointed out that any distortion or variation of sound intensity occurring in the transmission system of station 2YA can be discounted

equal disadvantage except those who were in a position where fading would cause trouble. A listener who lost the signals through this cause just at in that every listener would be at the critical point when he would ordinarily be straining to hear can be counted as unfortunate, but he should smile his acceptance of the fortunes of war—or wireless because fading is incurable in the light of present knowledge.

The human ear is not a standard and those whose ears are high-pitched are at an advantage in such a test as this. However, the winner did not show the best results but was a good average so that there need be no heart-burning on that score.

Taking an average of the results as shown by those returns considered reliable, the signals were loud up to 3000 and commenced to weaken rapidly after 6000 and were 'lost' at 8000. High-class equipments maintained touch to 10,000, but beyond this any results were freakish and probably due in

many cases to imagination. This statement will probably put to rest the lack of confidence in their equipment expressed by correspondents. Returns show a certain proportion of faulty equipment, but as far as can be judged the class of apparatus in use is generally good. Where really good designs of receivers and speakers were used the cut-off frequencies were obviously the limitation of aural response on the part of the listeners and cases were quoted where several people listening to the same equipment arrived at varying conclusions.

The number of charts which came in without comments was disappointing and many good results had consequently to be ignored. A great deal of irrelevant matter was also sent in, although of interest in other directions.

The decision in this matter was only given after careful consideration of the twenty contestants who were in the final selection and the other 19 can all be considered as close runners-up.—M.I.R.E.

The Winner's Report.

THE winning paper is adjudged to be that of Mr. R. Lake, 24 Leighton Street, Avonside, Christchurch. He uses a three-coil regenerative set with audio stages, one resistance, one transformer, and a gramophone attachment with a wide gramophone horn. He heard normal signals up to 1024 frequencies, after which a slight degree of fading, gradually intensifying, became apparent in the frequencies up to 7178. Frequencies were lost from 8192 on, although the generator hum was heard on 8192.

Mr. Lake's letter was as follows:—

I PROPOSE to divide my report on the frequency test carried out by 2YA into three sections, the first of these to deal with the results achieved on my own loudspeaker, the second with the general conclusions I have drawn from the test, including some remarks which will, I hope, mitigate to an extent the disappointment some listeners, probably most, may have felt in the performance, or lack of performance, of their speakers. The third section will deal with the broadcast itself.

May I, at the outset, stress the point that in all my remarks I am guided only by the position as it appeals to a layman in the theory of harmonics and overtones. Whilst, therefore, I lay myself open to correction on certain points, I feel, nevertheless, that sufficient excuse for rushing in where perhaps even angels may fear to tread is provided in the fact that the majority of listeners also view the position from a similarly non-technical standpoint, and if this is not sufficient excuse, then the "Record" must shoulder the blame, as it calls for reports from all and sundry.

A little elaboration of the notes made on my coupon (attached) is perhaps necessary. As this section is likely to be of small interest to the majority, dealing, as it does, with the results on one make of speaker only, it will be as short as possible. A few points, however, seem worthy of note, and it may be that the same conclusions may have been reached by others with different makes of speakers.

I BELIEVE it is very difficult for the human ear accurately to gauge the intensity of sound. One person hear-

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