Australians Appreciate 2YA Programmes and Transmissions

RECENT mails from Australia have been heavy, for it would seem that Australian listeners have been tuning in a great deal to the New Zealand stations. Numerous correspondents in all the States have written regarding the trans-Tasman flight, but the following extracts from letters have a general application and will serve to indicate the favourable view which Australian listeners take of the New Zealand programmes and transmissions. The references are principally to 2YA.

Randwick, Sydney.—"Might I be permitted to offer my congratulations on your splendid programme of this (Saturday) evening. Not only was the standard of your offerings much higher than any offered by any of the Australian stations, but your signal strength, and the quality of your transmission were such that I was able to work 2YA on a home-made three-valve set, and the above address is not a mile from 2BL."

volume, being sufficient to rattle the 'cans.' Fading is not very noticeable; perhaps this is due to the fact that the waves travel over sea instead of land. The carrier does not wander. I almost think that modulation could be carried a bit more as there is practically no distortion. A friend of mine can pull in 2YA enough to deafen a person on a five-valver. He reports that he gets slight fading."

Coolamon, New South Wales.—"I feel that I really must write and tell you of the wonderful reception I got from your station last night, on the occasion of the broadcast from Sydney of the Eucharistic Congress. I tuned in to 2BL and the reception was so poor that I gave it up as a bad job. (2BL is our worst station here.) And I was going to tune in 2FC when in 2YA came with unbelievable volume, and as clear and steady as could be, much better than 2BL. I often tune you in a bit after 7 p.m. (our time) and enjoy your transmission very much. Coolamon is situated just 325 miles inland in New South Wales, and it was quite uncanny for us to think that the broadcast was going to New Zealand and then right back again."

Brisbane.—"Just a report of transmission for the benefit of you and your engineers. 2YA comes in with fair

Bellerive, Tasmania.—"We have noticed that in vocal numbers from New Zealand the words of songs are much more clearly heard than from Australian stations, and are wondering if it is better enunciation or if the extra distance which the sound has to travel is the cause. Instrumental music comes through quite equal to the best mainland stations and generally your programmes are received well. I can congratulate you on the quality of your programmes, which are generally well balanced and good."

West Footseray, Victoria.—"I am just writing this note to you congratulating you on the excellence of the transmission of your station. I receive you regularly at full loud-speaker strength on a 4-valve Browning-Drake receiver, which I think is good considering that I am within one mile of 3LO, our local station. Several who have heard my set would not believe it till they had heard the announcer. As I am writing this the weather information is being given out and a statement that the Southern Cross would not leave to-night, and now the 'Lost Chord.' Fading as a rule is very slight and then of short duration. Your modulation is excellent, very little distortion considering the distance, much less than some of our Australian stations. The other night I had a native of New Zealand here listening in and he was delighted when he heard the Wellington clock chime 10 o'clock."

Sandy Bay, Tasmania.—"Perhaps it will interest you, 1YA, to know that your relay of 2FC on August 30, 1928, was received by me with wonderful clearness. As a matter of fact, my reception through your station was much better than I could get direct from 2FC owing to the fact that 7ZL, Hobart, interferes with me. I heard the 'Big Ben' time signal and soon after Cardinal Cerretti delivered his message to Australia. Before closing allow me to congratulate your company on the good quality of their programmes."

The Lightning Risk.

Earthed Aerial Safeguard.

IN Wellington city and suburbs and, indeed, in many other parts of New Zealand, lightning is of exceedingly rare occurrence and listeners never worry over danger of their aerials being struck by lightning.

The lightning hazard has been overemphasised by certain nervous listeners and is entirely a misconception. Protected properly, aerials are not the least bit dangerous but, to a certain degree, a protection to surrounding objects.

Earthing Prevents Striking.

The purpose of earthing an aerial system is not to lead lightning to the ground, if it were to strike, but to prevent it from striking.

The theory involved is readily understood when it is known that lightning will seldom strike a grounded object which is at zero potential.

An unearthed outdoor aerial is dangerous, due to its ability to pick up a charge and inability to dispose of it through the ground. For example, suppose a cloud charged positively were to pass in the vicinity of the ungrounded aerial. Naturally, it being unearthed, it would tend to absorb a certain amount of positive charge. If a negatively charged cloud should pass in the vicinity of the positively charged aerial there would be a potential difference between the two and a natural attraction.

Similar to Lightning Rod.

The grounded aerial, however, would remain at zero potential regardless of the polarity of the cloud passing in the vicinity, and would offer no attraction to the lightning bolt.

From the foregoing it is readily seen that the properly earthed aerial system offers no attraction to the lightning discharges, but functions similarly to the lightning rod. Being grounded, it tends to detract charges of static electricity from surrounding objects. This characteristic prevents the possibility of striking.

The Aerial.

BEFORE numbers of valves were generally used, every possible device to amplify signals was employed. The aerial and the earth received special attention. A lengthy high aerial was a factor of some importance; but in these days of multiple valves and electrical devices, this important factor has received little consideration.

The position of the aerial is of considerable importance, and even if operating a crystal set it is a good rule to see that it is placed at least six feet above surrounding buildings and trees.

The ability of an aerial to collect energy depends directly on its height. Thus, for a crystal receiver, which should have as much energy from the aerial as possible, no pains should be spared to make it as high as possible and as far above and away from trees and buildings as the resources of the listener will permit.

If a valve set is used an excessively long aerial is often an embarrassment rather than a help. There are two main reasons for this.

(1) A large aerial will collect a great deal of static and reception will be marred. This effect is not so pronounced on a crystal receiver.

(2) It tends to broaden tuning and a weak station is difficult to pick up without interference, while a powerful one is working. This is of little importance where a crystal set is used when one station only is brought in.