

MR. F. W. SELLENS writes: I have to acknowledge a list of all short-wave stations from Mr. Strong, Gisborne. As most of these are morse stations, they would not interest the majority of readers of these notes. A revised list of short-wave stations using telephony is being prepared, with time to listen for them, where this information is available.

The past week has again been good for short-wave reception, with the exception of Wednesday evening, when static was very bad.

Saturday, August 18.

KDKA, on 26.3 metres, was very clear at R3, but went off the air very early, soon after tuning in. 2XAD, 21.96 metres, gave a programme supplied by the National Broadcasting Bureau till 2.30 p.m. They then announced that "We will now take you to Reilly's Lake House, Lake Lonely, Togo Springs, New York, for entertainment for the next hour."

The dance music was supplied by Henry Bussey and his orchestra. Strength was up to R8 (on the speaker) during the last half-an-hour. They signed off at 2½ minutes after midnight, Eastern daylight-saving time. PCJJ, 31.4 metres, from 3.30 p.m. till 6.30 p.m., were 100 per cent. intelligible and very steady. Strength R6 was maintained for the first hour, and then steadily decreased to about R3.

Sunday, August 19.

KDKA, 26.3 metres, was tuned in at 1 p.m., when the "Golden Band Concert from The Campers" was being transmitted. At 1.47 p.m. they returned

Round the World on Short Wave

Notes of special value to short-wave enthusiasts are contributed weekly to the "Radio Record" by Mr. F. W. Sellens, Northland, Wellington. Observations from others are welcomed.

to the studio and gave the day's sports results. Until this time reception was good at R4 on speaker, when a peculiar intermittent interference was very strong, spoiling further reception on that wave-length only. 2XAF, 31.4 metres, gave their usual dance music from — Hotel, New York. This was spoilt by very strong morse.

WLW, 52.5 metres, was picked up later, weak, but clear, R3—4 on speaker, relaying orchestral dance items. They signed off at 1½ minutes past midnight, E.S. time (4.31½ N.Z.).

Monday, August 20.

3LO, 32 metres, was R7 at 6 a.m. Fading was bad. Modulation excellent.

During the programme, it was stated that the police patrol boats in Sydney Harbour are now fitted up with wireless. The transmitter is at Pennant Hills, controlled at police headquarters about 14 miles distant. The work was carried out by the A.W.A.

Amateurs were busy during the evening on telephony, 2HC, N.S.W., calling 2JJ, 1CH Auckland calling 1BD. 5DX South Australia and 3KB Victoria were the best heard. 5SW, 24 metres, was R2—3 with orchestral items at 11 p.m.

Tuesday, August 21.

5SW at 6 a.m. was R3 increasing in

strength, but surging was too bad to be intelligible. At 11 p.m. they were R3, again too unsteady to understand talk.

Wednesday, August 22.

PCJJ was R5 at its best this morning, slightly unsteady, but 100 per cent. intelligible.

5SW were broadcasting a church service at 7.30 a.m., switching over for the time signal on the half hour. Strength R4.

2XAF was tuned in just before 3 p.m. when dance music was heard till 3 p.m. From then till 3.30 p.m. the carrier only was heard with a strong ripple. It was announced that a Television test had been carried out. The times were given when these tests are transmitted from WGY, 11.30 till 12 p.m., Tuesday, being one, the test just concluded. The speaker said they were for the benefit of those with Television receiving apparatus.

Thursday, August 23.

5SW from 6 a.m. till 7.30 a.m. was R4-5 with a varied programme. Reception, though fair strength was unsteady.

Friday, August 24.

PCJJ was very steady, R6 at 6 a.m. decreasing to R5 at 7.30 a.m.

5SW. Received a very enjoyable programme given by the "Wireless Male Chorus" from 6 a.m. till 6.30 a.m. Their items, which were all old time songs, included, "There's a Tavern in the Town," "Vicar of Bray," "Ye Banks and Braes," "John Peel," "Sally in Our Alley," and "Clementine." Strength R5 (speaker). Modulation excellent, slight quick fading. Every word could be clearly heard. This is the best, both strength and clarity, reception of 5SW for some time.

At 10.30 p.m. a Jap. was heard talking. he appeared to be very excited over something.

5SW at 11 p.m. was too unsteady to hear what was said.

Short-Wave Will Win.

A COMMENTATOR in the London "Popular Wireless" says:—"This sounds contradictory, but is not really. G.L.S. (Victoria, Australia), in a welcome letter, asks me whether I think the Beam system will be ultimately the means of effecting a good Empire broadcasting system, or whether ordinary short waves will get the honour. I think the ordinary short waves will win, because they are true 'broadcast'; the Empire is not only India and the great Dominions; we have to think of the people scattered over Africa, Asia, and the islands of the sea. Who is to pay for the Beams? (Four at least would be required. Technically, the Beam wins. In practice, I declare for 5SW or its successor."

Short Wave Broadcasting will Link the World

ALTHOUGH still in the experimental stages, transoceanic broadcasting is a definite development of the future, and the time is not far away when Antipodean listeners will be able to tune in to London, New York, Paris, or any of the great cities of the world (states "Popular Radio" (Aus.).

FOR the past few months the British Broadcasting Corporation has been conducting a series of experiments in order to explore channels which might possibly lead to a system of regular programmes overseas. Up to the present, according to H. Jeffree Cooper, chief engineer of the British Broadcasting Corporation, it is apparent that the future of a service of this nature must depend upon a solution of the problem of good reception

rather than upon changes at the transmitting end; for such service, to be of real benefit, must be ultimately received sufficiently free from atmospheric, fading, and other interruptions to enable it to be rebroadcast with a quality comparable with that of the local station's output.

IN addition to Britain's dream of broadcasting the programmes from the Home Country to the far-flung British colonies, the 5SW experiments are also aimed at establishing an exchange of programmes with the United States.

FOR several months past the 5SW short-wave signals have been received and monitored in New York and Schenectady, for the purpose of studying the signal strength, the intelligibility, the fading and other character-

istic of the transoceanic broadcasting relay service.

NEW York and Schenectady are 250 kilometres apart. The results at both these receiving points have been about the same. The 5SW signals have been intercepted by various professional and amateur radio men, and rebroadcast on several occasions when conditions have been most favourable.

WHILE the short-wave signals from Chelmsford are being intercepted by radio amateurs employing conventional short-wave receivers and aerials, the results obtained are by no means reliable under such conditions and limitations.

INDEED, the reception of the present signals calls for laboratory technique of the highest order; and even in the future when improvements are certain to be effected at the transmitting end, it will still be necessary to employ special equipment located at favourable points.

DR. Goldsmith states that a decided revision of the transmitter is necessary, together with the installation of special antennae and receiving sets in the United States before reliable rebroadcasting can take place. In the way of transmitter revision, the present power is probably insufficient for spanning the ocean, although power by itself is not the predominant factor in short-wave transmission.

IF the signal strength varies of the order of 1000 to 1, which is often the case in such operation, due to fading,

the signal strength comes in pounding one moment, only to fade to a whisper the next.

HENCE additional power alone can only serve to raise the entire range of signal level, although the wide discrepancy between high and low points may even be accentuated, resulting in further problems. It is the amelioration of fading, rather than greater signal strength, which is desired.

IT is necessary to employ a directional type antenna at the receiving end, in order to effect maximum interception of the desired signal, to the more or less complete exclusion of other signals and parasitic disturbances. Also, the receiving set must include some means of neutralising such residual fading as may remain in the transmission, so as to maintain a satisfactory signal level at all times.

INSTEAD of merely twisting the aerial wire round the lead-in and screwing the nut straight on to the wire, it is a good plan to solder a large spade terminal to the aerial, as this allows a much larger and more satisfactory contact to be made.

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