Short-wave Jottings

MR. SELLENS'S (Northland) report for the weeks is as follows:—

Saturday, March 23.

P.C.J. was held from 5.30 a.m. till 7.30 a.m. Signal strength from R8 at first to R7 at close of transmission. Reception was mushy for first hour, but cleared up after.

G5SW opened at 6.25 a.m., with their tuning whistle. The opening announcement was very clear. The talk from London was not clearly readable.

W2XAD and W8XK (KDKA) were both transmitting the same item till just after 3.30 p.m.—an American Senator talking politics. 2XAD carried on with a musical programme at R8 after the talk. 8XK closing down.

PCJ from 3.30 p.m. (did not try them before) till 5.30 were received perfectly, volume was easy R9 towards the finish.

They concluded with "Goodbye, don't forget to write."

Sunday, March 24.

Z.L2AX was well received at about 11.30 a.m. Transmitting on the 80 metre band, signals were R9, with slight fading.

KDKA at 1 p.m. were readable at R3—4, which is early for this station to be good enough to follow talk. At 3.30 p.m. a tribute was paid to the late Marshal Foch, an orchestra playing the "Marseillaise"; this was followed by the "Last Post."

After the weather forecast, which was not very promising, music and messages to the Far North, also to the Byrd Expedition were relayed from the Italian dining-room of the William Penn Hotel. The station closed at 4.30 p.m.

W2XAF and W2XAD were transmitting the same programme during "Lucky Strike" hour, from 2.30 till 3.30 p.m., after which a special programme for the Byrd Expedition was put on. At 4.30 p.m. 2XAD was R9, while 2XAF was R8. The former station was much the clearer. A station was heard on about 52 metres; their call was not picked up, but it was probably WLW. At 9.30 p.m. RFM was transmitting some orchestral music, which was very fine.

Monday, March 25.

3LO from 6.30 a.m. was R9, clear and steady, with slight slow fade.

RFM, at 10.15 p.m., talk; R8; static bad.

Tuesday, March 25.

UP too late for duplex between 5SW and 2XO.

G5SW opened at 6.27 a.m., announcing that they were radiating on aerial A for the first 25 minutes. Big Ben was followed by a literary criticism. The talk was very clear and steady, being 100 per cent. readable. RS-9. A French lesson was given later.

RFM: Talk as usual.

Wednesday, March 26.

G5SW, as usual, opened at 6.27 a.m. A talk by Mr. Al. Simpson followed the striking of Big Ben.

KGO was R8 at 6 p.m., transmitting a variety programme by "Radio Keith's Orpheans." A portion of the music was relayed from Los Angeles. They signed off at 7.30 p.m. (midnight, Pacific time). Wave-length given as 23.35 metres.

ZL2GK with some records was well received at R9.

Verification for S.F.R.

MR. J. RAIT, Brooklyn, writes: I am fortunate enough to have received a verification from the French short-wave station operating on 24.50; call is SFR; address is Societe Francaise Radio-Electrique, 79 Boulevard Haussmann, Paris. New stations heard are 1AC and PKI, of Bandoeng, Java, operating on approximately 43 and 39 respectively; both work VK6AG on duplex. 3AN, Sourabaya, Java, broadcasts on Monday, Tuesday, Thursday and Saturday from 7 to 9 p.m., Java time. Wavelength 40 metres. When last heard was R4, wave unsteady. Address is 3AN, c/o Mr. W. H. Brussee, Sourabaya. I do not know whether any of your correspondents have received a Russian on about 22 metres broadcasting the same as RFM-N. From information received from a friend in Blenheim it is possibly RDRI, strength R3, wave steady. PCL, Kootwijk, Holland, was heard from 1.35-2 a.m., March 22, broadcasting the business of the League of Nations. Fading was bad, a short, sharp swing. QSA3; wavelength 18.4 metres. The announcer stated how wonderful it is to be able to speak to Australia and New Zealand, United States of America, India. Mention was even made of the Chinese famine.

The following is a translation of the letter from SRF:—

WE beg to acknowledge receipt of your letter reporting the reception of our stations, and warmly thank you for same. Broadcasts are effected through the 15 k.w. crystal-controlled station at St. Assise. A system of twin antenna is employed, one for Saigon, Indo-China, and the other for Buenos Aires. The former operates on a wavelength of 24.5 metres and the latter on 15.55. The studio is at Paris.

The transmissions for Saigon to the present have been irregular as regards the hours of operation and have been one way only. Excellent results have been obtained. The station has been reported in the Dutch East Indies and in Japan; in both cases the reception was perfect.

With Buenos Aires a special service of two-way communication has been attempted with good results. The telephonic systems of Buenos Aires and Paris have been connected with the radio, so that it has been possible to carry out trans-oceanic conversation with the ease and facility of ordinary 'phone conversation. This is to be developed into a public service, for it has been possible to recognise even the individual characteristics of voice. Moreover, by the means of the international system of telephonic cables, successful trials have been conducted with the European capitals, London, Brussels, Amsterdam and Berne.

We shall be pleased to receive any further advice from you and shall welcome opportunity to furnish you with all information which may be of interest.—Societe Francaise Radio-electrique, 79 Boulevard Haussmann, Paris (VIII e.).

THE General Electric Company's station KGO, Oakland, California, is conducting a series of Saturday evening programmes from 9 o'clock till 12 midnight (American time), which corresponds with 4.30 o'clock till 7.30 o'clock Sunday afternoon (N.Z. time), and they are working on about 21 or 22 metres.

Southland Notes

W.G.L., Southland writes: Conditions in Southland have been poor, but following is my log:—RFM has not been received with much volume in Southland lately. Only on a clear night does it have anything like volume, but the winds as we get here affect this station.

Friday, 15th: PCJ in the morning was R8, very clear and steady. RFM in the evening with his usual talk was R6.

Saturday, 16th: PCJ was heard again with some good music. R9. RFM was R3 in the evening.

Sunday, 17th: 2XAF with music was R7; some satic was interfering and I was rather late in getting on to this station, but I listened to the end when the announcer said it was 1½ minutes past 12 E.S.T. RFM was R6.

Monday, 18th: 3LO Melbourne in the morning came in with great volume, strength being R9. Nothing was heard on Tuesday or Wednesday on account of rough weather.

Thursday, 21st: RFM was the only station heard, being R4, with music.

The Story of the Valve

A Romance of Invention

WITHOUT the invention of the radio valve broadcasting would be impossible, and radio would have stayed where Marconi had placed it—solely as a means of Morse communication. In the year 1884, what is known as the "Edison effect" was noticed in the Edison laboratories. When a metal plate was placed between the two edges of an ordinary carbon filament electric lamp, a stream of electrons passed from the negative leg of the filament to the plate. Professor Fleming, an English scientist of note, conceived the idea of turning this Edison effect to account in the year 1904, and produced a two-electrode valve. His experiment had proved that a carbon filament, inheated to incandescence, and surrounded by a metal plate, acted as a rectifier, but was not as sensitive as a crystal detector.

In the year 1903 Lee de Forest, experimenting in wireless telegraphy, observed that a spark coil, when connected to a source of current supply, affected the light from a Welsbach incandescent gas burner. He deducted that heated gas molecules were sensitive to high frequency oscillations. In 1906, de Forest added a grid, or third electrode, to Fleming's two electrode valve, and termed the resultant valve an "audion." His circuit arrangement for testing out this three electrode valve was just a simple one-valve circuit.

Since that time the improvements on the first valve have been rapid. In 1913, Captain Round introduced an improvement to prevent Cathode rays, as the electron streams are called, from reaching the walls of the glass enclosing bulb or tube. In order to accomplish this, he completely surrounded the filament with a grid of wire gauze, protected by a metal cylinder.

Baird Television

According to a Press Association cablegram from London the British Postmaster-General has agreed that the B.B.C. plant may be used, outside ordinary broadcast hours, for further experiment with Baird's television apparatus. It is stressed that this does not imply any immediate revision of the B.B.C. attitude following on earlier experiments.

3DB Almost Ready

THE Melbourne "B" class station, 3DB, is on the eve of transmitting television. Several sets of equipment operating on the Baird principle have been obtained and are being assembled, and early demonstrations are promised. While it will be agreed that the experiments should receive as much assistance as possible from the Postal authorities, it is as well, however, to remember that the solution of the problem of television is by no means completed.

Several systems, all similar in basic principle, have been devised, and all are capable of transmitting moving images. This, however, does not mean that development has been carried to a point from which effective permanent services can be begun.

Wireless telephony under certain conditions was possible early this century, but it was not until 15 years after the first successful transmissions of speech by wireless telephone were held that broadcasting became possible. Television is in much the same position today as broadcasting was before the development of valve transmitters.

Some qualified technicians who have discussed television have advanced the assertion that the broadcasting of moving pictures by wireless will never be possible. They are able to support this statement on sound scientific grounds, but in spite of this developments in applied science occur so rapidly that it is not too much to expect that the main obstacles to the opening of commercial services will ultimately be overcome.

The various systems being employed are undoubtedly capable of providing a broadcast television service, but such a service would be most unlikely to prove permanent. It would command considerable support at the outset as a novelty, but unless a remarkable improvement in the size and quality of the broadcast pictures could be made before this interest passed services could not survive the passing of their novelty. Additional research is therefore required, and it is interesting to see an Australian company joining in this work.

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