

2XAL	..	30.91	..	New York (short wave, WRNY).	Daily, 3.30 a.m.-5.30 a.m. and 11.30 p.m.-1.30 a.m.; M., 6 a.m.-11 a.m.; T., 6.30 a.m.-11.30 a.m.; W., 11.30 a.m.-4.30 p.m.; Th., 6.30 a.m.-1.30 p.m.; S., 6.30 a.m.-3.30 p.m.; Sun., 11.30 a.m.-2.30 p.m.
EA	..	30.7	..	Madrid.	
LG	..	30	..	Bergen (Norway).	
2FC	..	28.5	..	Sydney.	
8XK	..	27	40.	Pittsburgh.	T. and F., 5.30 a.m.-7.30 a.m.
2XAG	..	26.92	..	New York.	
2XAB	..	24	..	New York.	
5SW	..	24	15.	Chelmsford, England.	Daily, except Sun. and M., 12 p.m. to 1 a.m., and from 6.30 a.m. to 10.30 a.m. M., 12 p.m. to 1 a.m.; and S. 6.30 a.m. to 10.30 a.m.
2XAA	..	22.99	..	Houlton (Maine).	After 9.30 a.m.
WQWO	..	22.8	1.	Fort Wayne (Indiana).	After 9.30 a.m.
	..	22.2	0.24	Vienna.	
2XE	..	22.1	..	Richmond Hill (N.Y., S.W. of WABC).	After 9.30 a.m.
2XAD	..	21.96	..	Schenectady (New York).	M., 9 a.m., 2 p.m.; T., 5.30 a.m.-7.30 a.m.; 9.30 a.m.-3.30 p.m.; Th., 9.30 a.m.-3.30 p.m.; F., 5.30 a.m.-9.30 a.m.; S., 9.30 a.m.-3.30 p.m.
PCLL	..	18	..	Kootwijk (Holland).	Th., 1.30 a.m.-3.30 a.m. and occasionally T. and S.; relays proceedings of League of Nations.
AGC	..	17.2	..	Nauen.	
ANH	..	17	30.	Bandoeng, Java (Radio, Malabar).	Sun., 12.10 a.m. till 2.10 a.m.
2XG	..	16.02	..	Rocky Point (Long Island).	T. and S., 3.30 a.m.
ANE	..	15.93	15.	Bandoeng, Java (Radio, Malabar).	W., Th., and F., 5.10 a.m.-7.10 a.m.
	..	15.5	..	Nancy, France.	

capacity neutralising principle, are disappointing. Neutralised radio frequency receivers as a type are probably more widely used than any other type of receiver, except, perhaps, the crystal receiver, and their efficiency when properly constructed and adjusted is never doubted. Quite the most common cause of failure in home-made neutrodyne sets is incorrect adjustment of the neutralising condenser. The purpose of this condenser is to compensate for the unavoidable capacity which occurs in the receiving valves, and to a lesser extent in other parts of the circuit, but to be effective its adjustment must be made with great exactness. The effect of the accidental and unavoidable capacity in the radio frequency amplifying valves and associated components is virtually to form a partial short circuit across the radio frequency amplifier, with the result that energy picked up by the aerial is passed more or less completely to the detector valve without being properly amplified by the amplifier. Great loss of sensitivity results. The method of adjusting the neutralising condensers to avoid this effect is simple. The receiver is tuned in to a fairly strong local station, and the filaments of the radio frequency amplifying valves are then turned off. It will be found that signals from the local station will still be heard, though generally at considerably reduced volume. The neutralising condenser is then adjusted until the signals disappear or become so faint that they are practically inaudible. If more than one valve is used in the radio frequency amplifier, first one valve should be adjusted. When signals are cut off by the adjustment of the neutralising condenser on the first valve, that valve should then be lighted, the second still being turned off. It will be found that signals will again become audible, and the second valve should then be adjusted until they disappear again. The receiver will then be completely neutralised. It should be borne in mind that it is generally necessary to make a slight readjustment of the neutralising condenser if the radio frequency amplifying valves are changed. This will certainly be necessary if valves of one type or make are replaced with a different type.

time, at R5. Some of his talk sounded like a Maori haka.

5SW from 11 p.m. was R4—quite strong for this transmission. Signals were spoilt, probably on account of swinging aerial at this end, as a gale of wind was blowing.

These late evening transmissions from 5SW are gradually improving in strength. It is of course midday at the other side, and daylight at least half the way round.

Correct Neutralising.

Causes of Failure.

IT is common experience among home builders that preliminary experiments with various forms of neutrodyne circuits, or other receivers, such as the Browning Drake, embodying the

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that did the work, which is a fully shielded set, calibrated and guaranteed, and can be purchased for £14/10/-. Extra broadcast coils can be bought for 20/-.

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76 and 77 KENT TERRACE, WELLINGTON

2AJ, Wellington, was heard testing on the 30-metre band.

Sunday, September 16.

Conditions must have been bad for DX. 2XAF at its best was not more than about R4. This was the only distant station heard till RFM was on the air during the evening. Static on this was very bad.

Monday, September 17.

3LO was tuned in at 6.15 a.m., when all that could be heard was "Hullo" at times, and some morse V's. The session commenced with the time from Melbourne Observatory at 6.30 a.m., followed by the announcement that the programme was for one hour only. Volume R9 with bad fading. After 7 a.m., fading was not so bad, reception being much better.

Tuesday, September 18.

5SW was very good. Just before 6 a.m. some songs by a choir were enjoyed. This was followed by a talk by the headmaster of Christ's College on "Education and Unemployment." This was 95 per cent. readable at R8. At 6.15 a.m. a flute recital was heard. RFM was R5 during the evening. Static very bad.

At 11 p.m. the carrier of 5SW was not audible.

Wednesday, September 19.

From 5.15 a.m. till 7 a.m. PCJJ came in at even volume of about R8. Several items by Mr. —. Dutch pianist, were heard.

Big Ben was heard from 5SW at 5.30 a.m., followed by a lady talking about British Red Cross work. Seventy-five per cent. readable at R8. Volume remained at this till about 7 a.m.

KDK was tuned in at 2.30 p.m. Baseball results, weather forecast, and the next day's programmes were read. R4.

A political talk by Governor Al. Smith was heard from the City Auditorium, —, Nebraska, through 2XAF.

His audience appeared to agree with all he said by the way he was cheered. His concluding sentence was: "There can be only one decision on November 6, that is an overwhelming Democratic majority." (Loud cheers.) The talk finished at midnight, Eastern daylight saving time (3.30 p.m. here).

A Jap., probably JHBB, on about 31 metres, was heard at R8 during the evening. He shouted JOAK several times. The programme of this station is often relayed by JHBB on various short-waves.

2HC New South Wales, and 3(JR)? Victoria, were also heard testing.

Thursday, September 20.

5SW at 6 a.m. was R7, but rapid fading spoilt reception. The Wireless Band gave some items from 6.15 a.m.

A voice was heard on about 44 metres, but static was too bad to understand anything, even if it was English spoken.

At 8 p.m. a call was heard "Victorian Experimental Station 3(GP)? testing." The letters sounded different each time they were given. R5, static bad. 7CW Hobart came in well on about 33 metres. Strength R5, and very steady.

RFM was R5 with a strong ripple.

The Jap. was heard on about 60 metres this time. I don't know if it is always the same station, but he transmits on several wavelengths.

Friday, September 21.

PCJJ from 5 a.m. till 7.30 a.m. was very good. Strength fairly even all through at R7-8, decreasing slightly towards 7.30 a.m.

5SW commenced with Big Ben, followed by a talk on novels by a lady.

5.45 a.m.-6 a.m.: Concerted items were heard. 6 a.m.: "London and Daventry calling" was called. Something was said about a golf conference at Manchester, I think. The talk that followed 75 per cent. readable, was all about golf. Strength R8.

RFM was about R5 and very rough. The Jap. was on about 35.5 metres this