

Mr. A. P. Morrison (Brooklyn) writes:—

Shortwave reception this last week has been very good with me. I have cleared up the mystery station, "JCE, Paris." This station was heard after midnight on Tuesday, January 15. He was operating on 26 metres, and his call-sign was heard three times. It is: FL, Radio-Electrique, Hausmann, Paris.

Two other new stations have been heard. PLG, Java, when heard last night was operating on 17 metres by the readings of my condensers, and they stated that PLG was a new transmitter, and last night was their first transmission. I might state it was said from PLG that Java has five l.s.w. transmitters now, and that all call-signs have changed. These calls were mentioned: PLE, PLF, PLG, PLR, and PLI. I have written to Java in regard to their changed call-signs and wave-lengths.

2ME, Sydney (Australia), call-sign is now PK2ME.

My log for the week is as follows:—

#### Friday, January 11.

6.30 a.m.: 7LO, Nairobi, heard giving news reports, and afterwards music; R6.

7.5 a.m.: 5SW was R7 fading; spoilt reception. 9 p.m.: W2XG, Rocky Point (America), with his word-test (write down transformer, etc.), R8. 9.30 p.m.: RFM, Russia, was at good volume: R8. More talk, then music, as usual.

11 p.m.: PCLL, Holland, broadcast-giving music was R9, but distorted.

11.15 p.m.: ANE, Java, 15.74 metres, with music, volume was tremendous and modulation was perfect (I might say, R19). Afterwards both stations carried out duplex telephony.

#### Saturday, January 12.

No SW stations in the morning.

3.30 p.m.: W2XG, Rocky Point, word test; strength, R7; W2XAD was not heard, or KDKA. W2XAD I have not heard since he changed his wavelength down to 19 metres.

9 p.m.: RFM, Russia was at good strength; R8. I did not listen again on the SW band till 12 p.m., listening to 2YA and the boxing from 2BL, Sydney.

12 p.m.: 52 metre stations as reported before. Musical items; strength R6; no call-sign heard.

12.18 p.m.: Station on 41 metres, both musical and vocal items heard; R7. Call-sign heard, PRN, but did not get location; foreign.

1 a.m.: PELL, ANE, and ANH were all heard on duplex telephony with one another, the two former stations at R8 and ANH, R7.

## Round the World on Short Wave

### Sunday, January 13.

Between 11 a.m. and 12 p.m., 2AX, Palmerston North, on 82 metres, testing R8.

3.30 p.m.: W2XAF, B4, dance music, but increased to R8 by 5 p.m.

4 p.m.: KDKA very weak, R3 to 4; did not trouble him much in afternoon, heard him again at 6 p.m. Special programme to Byrd expedition was heard back on 25 metres and 63 metres. His strength on 63 metres was R8, while on 25 metres he was only about R6. This programme concluded at 8.15 p.m. New Zealand time, quite an enjoyable programme.

### Monday, January 14.

6.45 a.m.: 3LO, Melbourne, was on the air with their usual Monday morning programme. Strength was R8, but fading slightly.

RFM was heard in the evening, R7. Also two New Zealand amateurs, ZL2AR working ZL2GA.

### Tuesday, January 15.

6.30 a.m.: 7LO, Nairobi, very weak; R4.

5SW was not heard by me.

9 p.m.: JHBB, Japan, on 32 metres. Modulation was quite good for the old Jap for once; R6.

9.30 p.m.: W2XAG, as usual, word test; R7.

10 p.m.: RFM, Russia, with some good music; R8.

12.5 a.m.: FL (2CI, Paris) was heard on 21 metres, absolutely perfect modulation and strength R9. No music was heard, all speech. My reason for so late a sitting this night was to test the strength of 5SW. He was heard at 12.45 a.m., two faint items first heard, and I must say his night receptions with us are better than the morning. I was surprised at the volume; strength was R8. Before closing down for the night a station on 15 metres was heard at R6. A man talking in foreign language, but could not make out the call.

### Wednesday, January 16.

7 a.m.: 5SW with a vocal item; R6.

8.20: ZL2GH, Wanganui, 80 metres, testing; R7.

9.15: JHBB, Japan, operating on 60 metres. Even better than Tuesday night; mostly talk. Strength R8.

11 p.m.: PK2ME, testing with PLG, Java, duplex telephony; R8. A slight fade.

11.5 p.m.: PLG, Java, as above. PLG performed a new one to me. At one part of their transmission the announcer stated that he would connect a telephone line from the studio for someone to talk to PR2ME, and the test was quite good at this part of the transmission. 2ME could distinctly be heard at PLG end.

### Thursday, January 17.

9 p.m.: JHBB, 37 metres. When first heard a little girl was singing, but modulation and strength was not too good, so did not trouble him much. About R6. To-night I have taken my entertainment from RFM, Russia. They have had a full night's programme and are still going. Some wonderful music and singing heard and strength is everything you could wish for; R9.

## Short Wave Peculiarities

### Helpful Hints

WHEN one gets down on the really short waves, such as the 20 to 35-metre band, usually a number of things strike him as being perplexingly different from the conditions he is familiar with on longer waves, and although he may get used to them, there is always a feeling that the set would be pleasanter to work if it would behave in a more rational fashion.

Sometimes it is possible to remove or reduce these little peculiarities by various dodges, such as one learns by experience, and the disconnected notes which follow are intended to help in getting rid of two of the most tiresome ones. They are based on experiences with sets of the general type likely to be in use among readers, and it may be taken that the remedies suggested are of a universal nature and will suit practically any case.

### Moving "Flat Spots."

FIRST of all we have the rather curious phenomenon of "flat spots" on the tuning range of the set. These are patches—sometimes only a few degrees wide, at which a great deal more reaction has to be used to make the set oscillate (in extreme cases it may refuse to oscillate at all), and on either side of which reaction is quite normal again.

It may be found that there are two or three of these patches on the tuning range of a given coil, and they can be a great nuisance, in ways which need not be described since they will be painfully familiar to most readers who have tried the short waves. The usual remedy recommended is to place a small fixed condenser in the aerial lead, and although this works (at any rate, it shifts the flat spot somewhere else), it is rather a nuisance to be obliged to transfer the aerial lead to a fresh terminal on the set, and then shift it back when the flat spot is encountered once more in its new position. Besides the condenser, if small enough to do its job, usually reduces signal strength a little.

A better cure in most cases is to weaken the coupling of the aerial to the tuned circuit. Where a separate aerial coil is used this is fairly simple, and it generally pays to provide some scheme for swinging this coil away from the secondary. For example, where plug-in coils are employed, you can use only a single screw for fixing the aerial coil socket, so that you can afterwards adjust it to various angles. Flat spots are generally quite easy to move in this way.

### Cures for "Threshold Howl."

WHEN the aerial is connected straight to the tapping on the tuned grid coil matters are a bit more difficult, and probably the best solution is a tapping clip which can be quickly moved from turn to turn to give various degrees of coupling. The only serious drawback to this method is that it causes considerable changes of

wave-length, so that you must be prepared to re-tune fairly frequently to find your station again.

Then again there is that annoying squawk or howl heard with some sets as they go into oscillation, commonly called "threshold howl," since it stops once oscillation has started properly. It is a rather mysterious complaint, but the main causes appear to be these (the remedies being fairly obvious where they are not given):

(1) Aerial coupling too tight.

(2) Reaction winding too big, or possessing too much capacitive rather than magnetic coupling to the grid coil.

(3) Detector valve of too high an impedance, or unsuitably supplied with B. and A., or unsuitably biased as to grid (try connecting lower end of grid lead to slider of a potentiometer).

(4) L.F. side unstable (reverse G.B. and G. leads to transformer) or being upset by intruding stray H.F. currents (use better H.F. choke, by-pass transformer primary with .0005-mfd. condenser, and space out the parts a little more widely).

## Television by 'Phone

THE well-known American Bell Telephone Laboratories, which were responsible for the first public demonstration of moving-picture transmission by wireless, have recently designed a two-way television apparatus intended for use with the ordinary telephone service. It enables a subscriber at one end of the line to see, as well as hear, the person at the other end of the line. The ordinary microphone is backed by a screen containing two apertures. The features of the distant person appear in one aperture, whilst the other receives the reflected light from the head and shoulders of the local speaker. A rotating disc with two series of spiral holes serves the dual purpose of analysing the outgoing television signals and of reassembling the incoming television currents after they have been applied to a local Neon glow-lamp. Four connecting line wires are necessary. One for carrying speech, one for carrying the outgoing television currents, one for the incoming television signals, and the fourth for carrying a synchronising current.

IT is said that during the recent gales that have swept Europe, the Eiffel Tower swayed so violently that visitors were kept off the top stage.

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