

MUCH HIGHER POWER IS RULE OF MEXICANS

Heterodyne interference experienced in all types of receivers may be due in many instances to high-powered Mexican stations, especially as these stations operate at or near frequencies used by United States stations. For instance, XEZ uses 711 kc, or 1 kc removed from WOR, Newark, N. J., and XEM uses 660 kc, the same frequency at WEAJ, New York City.

It is possible to suffer interference though both stations are on the same wave, due to slight departure from assigned frequency, and especially as the requirement of frequency adherence is not as strict in Mexico as it is in the United States. Also, a phase shift introduces interference in the form of fading.

The problem of interference by Mexican stations with broadcasters in the United States and Canada was discussed at the recent North and Central American Radio Conference, held in Mexico City, Mex., but the conference could not get the Mexican government to consent to a proposed code for ridding the areas of interference, as certain modification of Mexican activities were involved.

The following list of stations, with their high power noted, has been released from Mexico City, and includes some transmitters proposed for early operation, but that have not yet taken the air:

- XEN, Matamoros, 711 kc., 150,000 watts.
- XEM, Matamoros, 660 kc., 500,000 watts.
- XEF, Villa Acuna, 665 kc., 500,000 watts.
- XET, Monterey, 690 kc., 500,000 watts.
- XER, Villa Acuna, 735 kc., 500,000 watts.
- XETM, Matamoros, 845 kc., 150,000 watts.

XENT, Nueva Laredo, 1,115 kc., 150,000 watts.

With such high-power stations south of the Rio Grande there will necessarily be much interference with American stations.

Board Scans WMCA Deal with Millionaires

Washington.

Some interest was shown at the Federal Radio Commission in the contract between a group of millionaires' sons, and Donald Flamm, for control of WMCA, without actual transfer of the station license. The new management intends to make the station one of importance and value in the community, according to its expressed declaration, and has elected Alfred E. Smith as chairman of the board.

At the Commission it was pointed out that there is a strict policy there against trafficking in licenses, and that the arrangement carried out at WMCA did not seem to be consistent with that policy. However, no official action has been taken, but it is understood that the Commission is being consulted as to a future course affecting the station, now that the deal has been completed. Commission sanction would be necessary ultimately.

The entry of Mr. Smith into the broadcasting board followed closely the identification of Curtis Dall, son-in-law of President Roosevelt, with a broadcasting chain.

20 MORE 50 KW STATIONS LOOM IN A NEW MOVE

Washington.

Doubling the number of 50 kw stations in the United States, now limited to twenty, is recommended by Federal Radio Commissioner Harold A. Lafount. Such extension of high power was sought by stations a few years ago, but they were deterred by a lack of encouragement from the Commission, and by the growing seriousness of economic conditions. However, since then the stations' economic situation has shown signs of improvement and the membership of the Commission has changed, so that now there is a better likelihood of success.

The suggestion was renewed by Commissioner Lafount after the few years of dormancy, following the failure of the recent inter-government radio conference in Mexico City to get co-operation from the Mexican Government for riddance of interference conditions. With Mexico going to higher and higher power, some United States stations feel that their power should be increased.

Stations Have Opportunity

Since the disposition of the Commission membership is said now to be favorable to the forty-station plan, it is now up to the stations to say whether they want the extra power. It is believed that they will come forward lustily, as they did some years ago, when twice as many applicants appeared than it was even remotely possible would be accommodated.

An added incentive to enlargement of power output is the fact that an outstanding effort will be made by WLW, Cincinnati, O., to effectuate continental coverage with a single station, by using 400 or 500 kw. This tremendously-powered transmitter will be on the air in a few months. The idea is to constitute the equivalent of a "single-station chain."

Smaller Stations Hopeful, Too

Meanwhile there are scores of smaller stations in the United States that would like to use greater power, but are prevented both by economic conditions and by the Commission's classification. However, a review of the radio broadcasting setup, as affecting power of stations, is said to be contemplated by the Commission.

While large hopes always have been held forth for super-power, the general experience so far has been, comparing 5 kw to 50 kw, that the service area was enlarged, signal quality was improved and more consistent reception assured, but the penetration of great distances on a dependable basis has not been one of the results, although at first expected. However, a 100-fold increase, compared to a 10-fold increase, may reveal a different story, in the case of WLW's new transmitter, compared to the original power of some stations now on 50 kw. WLW is one of the present twenty 50 kw stations.

BLAN THE RADIO MAN DID IT

The phototube relay described in last week's issue was made up by Blan the Radio Man, 177 Greenwich Street, New York City. He has demonstrated it for various uses in his store at that address.

Ease of Ha

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improvement in the sensitivity, and is well, but if the trimmer has been a great deal, the readjustment oscillator may effect an improvement may justify the extra work.

When the larger coils are used, the trimmer will affect the setting of the oscillator more than the smaller coils do for a reason that has already been pointed out. Likewise, on these coils the trimmer will have to be used more in order to get the greatest sensitivity out of the set.

Layout of Circuit

The circuit is built on a regular panel so that there is plenty of room. A view of the subpanel is shown in Fig. 1. In the center is the gang condenser. To the left of this is the pentode. Directly behind the tube, but not touching it, is the oscillator coil. The rear section of the condenser serves this coil. The frequency coil is in the left, front, and is clearly visible. Back of this coil is the first intermediate frequency transformer and in the left, rear, is the 58 intermediate amplifier second tube from the left, in the center, is the second detector and back of this is the second intermediate frequency coil.

On the right of the condenser is the power supply and the audio amplifier. In front is the power transformer. Back of this are the two 8 mfd. filter capacitors in the B supply. Back of these are the power tube and the rectifier. Which is which is clearly shown in Fig. 2.

In Fig. 2 we have a view of the panel from underneath. From this view we note that the manual volume control is the right hand knob in Fig. 1 and the trimmer condenser is the left hand knob. The central knob, of course, is the tuning control.

The locations of the two 300-turn potentiometers are also shown. One choke is in the center.

Two

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