1YA was on—and it was after 11 when he closed down—both programmes were rather jumbled. 4RK came in later with remarkable strength and clarity. I also have a complaint against 4BC for not answering, as I included the necessary stamped and addressed envelope. I still maintain there is no need for 2YA to come on the air at 5.40 p.m. on Sundays, when the other YA stations do not start up until five minutes before the official commencing hour. This may seem a trivial complaint to most DX-ers, but they are not under the shadow of the 2YA transmitter.—"DX1W" (Wellington).

Concerning Verifications.

I NOTICE quite a few DX-ers complain of not receiving verifications from various stations. I am patiently waiting on four verifications from New Zealand stations, to all of whom I sent addressed envelopes and stamps for return postage. These stations would no doubt welcome reports when testing and ask for them, and I am sure many DX-ers like myself would send them, even if verification had been received. The least these stations can do is to reply.—"Silver King" (Auckland).

A Verification from WSUN.

I RECENTLY received verifications from WSUN, St. Petersburg, Florida, on 620 k.c. (484 m.). Power, 1 k.w at night and 2.5 k.w. in daylight. My report on their reception was first from New Zealand, and the station manager was so pleased to hear that his station signals were reaching out to New Zealand that he had a paragraph concerning my reception published in their daily paper. It was headed thus: "Man in New Zealand Enjoys WSUN Programme." It read as follows: "A radio broadcast over WSUN was heard in Okato, New Zealand, according to word received Saturday by the Chamber of Commerce from Spence R. Ellis of that city. [It must have grown since we were there last.—Ed.] Mr. Ellis said he heard the programme on May 7 at 6.30 p.m. St. Peterburg's time was 2 a.m. 'It was a rough, rainy evening,' he added, but he distinctly heard three fox-trots played."

This clipping was enclosed with a verification which runs thus: "This will verify reception of station WSUN on Thursday, May 7, 1931, at 2.00 a.m. E.S.T. We were greatly pleased and surprised that you were able to receive our station. It is very pleasing to us to hear that our station signals reach so far."

Radio and Weather Conditions.

FOR two years I have been trying to arrive at some conclusion as to the "why and how" of variation in reception strength. To begin with, many distant stations are distinctly seasonal—I mean apart from the question of greater darkness and cooler conditions at the transmitting end. The following seems to be an exception to the general rule: The Texas, Central, Southern, and Central American stations are received with greater regularity during winter than summer—during a season when static is supposed to be very bad in these districts. On the other hand, the Southern Californian stations are just the opposite.

The records I have kept have been taken over far too short a period to be of much value, but one set of facts seems to be emerging from many contradictions. That is, that DX improves as the moon waxes to the full, usually for about four days (or nights), more especially when a cyclonic storm has just passed, as has just happened. Static apart, however, I believe that weather conditions at the transmitting end have far more effect on the reception than at the receiving end. Storms in between seem to have very slight influence, probably because the reflection area is far too high above them to be affected. I always endeavour to listen for the weather reports from the distant stations, but unfortunately many omit this—at least near signing off. The series of "tooth-edged westerlies" experienced last spring and again during this winter, have had a great influence on reception from Tasmania and the Victorian districts. It has been very noticeable that when a "high" is over this area, reception has been abnormally clear and loud, even though the "tooth" would be over the South Island. When the position is reversed, however, it is difficult to get more than a whisper from the above stations. These conditions, however, would not necessarily obtain over the Pacific. Generally, it is quite the contrary, but here again differences occur, as the Japs are not invariably at their best on the same night as the Americans are well received.—"Kairu-uri" (Whangarei).

THE magnification factor of a valve is a figure based on the fact that a few volts on its grid are equal in effect to a larger number of volts upon the plate.

Radio in India

Suggested Service Improvements

SUGGESTIONS of great interest for the basis of a satisfactory broadcasting service in India are contained in an article by Professor G. R. Toshniwal, of Allahabad University, which was published in "The Pioneer," a leading Indian newspaper.

Dealing with the present conditions he states that the Indian Broadcasting Company, which was floated in 1927, suffered heavy loss, and had to go into liquidation in 1930. Now both the Indian stations are run by the Government, probably at a loss. He gives as the reason for this lamentable state of affairs the fact that there are only a few thousand listeners in the country, the population of which is 300 millions.

He therefore considers that the first essential moves are the production of a cheap and simple set, and the building of a large number of transmitters so that adequate volume can be obtained from such a set. One of the greatest difficulties in connection with transmission is atmospherics and man-made "static"; in Allahabad signals from Calcutta and Bombay, are not only equal in strength to the interference, and in summer the signals are almost drowned.

For diversity of programmes and long distance reception he suggests that each station can be supplied with a low power short-wave transmitter which he states could be done "at a little extra cost."

To finance this scheme he considers the Government should either start State factories or subsidise a private company for the manufacture of wireless apparatus, and should impose heavy duties on imported goods. In his opinion each of these factories could maintain a transmitter which would lend its service to business firms for sponsored programmes.

In this connection he states: "Even in England, such 'sponsored programmes' were the only foundation for a self-sustaining radio broadcasting service." While this is true for America, the other example he gives, it is not so for England, as we never have sponsored programmes.

Continuing, he advocates the employment, by manufacturing concerns, of foreign skilled labour on a contract basis, and the training of Indians to replace it.

For the programmes he suggests music, lectures, talks, and non-sectarian religious discourses "which will cultivate a sense of toleration and mutual understanding among the various Indian communities."

He thinks public demonstrations in the use of radio sets should be given and sets should be installed in schools and colleges to interest the younger generation. Subsidies should be given for transmitters in each of the colleges where wireless courses have been taught for the past few years.