

TELEVISION IN JAPAN

THE increasing importance of Japan in commercial fields of the world has been a subject of topical interest recently. It is, therefore, interesting to visualise progressive activity in technical circles.

With the latter idea in mind, our representative set out to interview Dr. Karawada, Professor of the Engineering College in Waseda University, near Tokio, during a recent visit to this country.

Questioned about the work being done in Japan at the present time, we were interested to receive some details of the layout at the Waseda Laboratory for televising baseball matches.

The apparatus is located at a corner of the baseball pitch, behind a plate-glass screen, and it is possible to follow two or three of the players with a telephoto lens. A scanner on the Nipkow disc principle is employed, using sixty lines and framing eighteen pictures per second. The wavelength used is 1.59 metres with a power of

about twenty watts in the aerial. The definition leaves something to be desired, but satisfactory results are obtained in conjunction with a running commentary.

Six stages of amplification have been employed in conjunction with a Kerr cell and mirror-wheel projection apparatus. A new mirror-wheel equipment is in course of construction, and actually two wheels will be used simultaneously, one each for vertical and horizontal scanning respectively. The wheels will run at 6,000 revolutions per minute, and an increase to 120-line scanning will be made. The light will be produced by a 10 kW arc.

It is interesting to note that the Waseda University Laboratory specialises on Kerr cell reception, whilst the cathode-ray principle is being explored at the Technical College at Hamamatsu, about 100 miles from Tokio.

The other experimental centre is at the Electro-technical Laboratory of the Ministry of Communications, Tokio,

where neon, sodium, mercury lamps, etc., form the subject of investigation for television purposes.

It appears that there is little to choose to date between the various methods of reception, at least as far as definition is concerned, although, of course, there is the difference between a projected and subjective picture. Dr. Karawada is of opinion that the more important trend of progress for the near future will lie in the large projected picture for public functions.

The three television authorities mentioned above are subsidised by the Broadcasting Corporation of Japan, which holds a monopoly. Thus the joint research workers pool their findings for the benefit of their national broadcasting authority.

Professor Karawada stated that he was especially impressed with the German transmissions and reception, utilising the intermediate film with 180 lines on a wavelength of 7 metres, and so far as this country is concerned with the potentialities in the latest investigations of the Marconi Company.