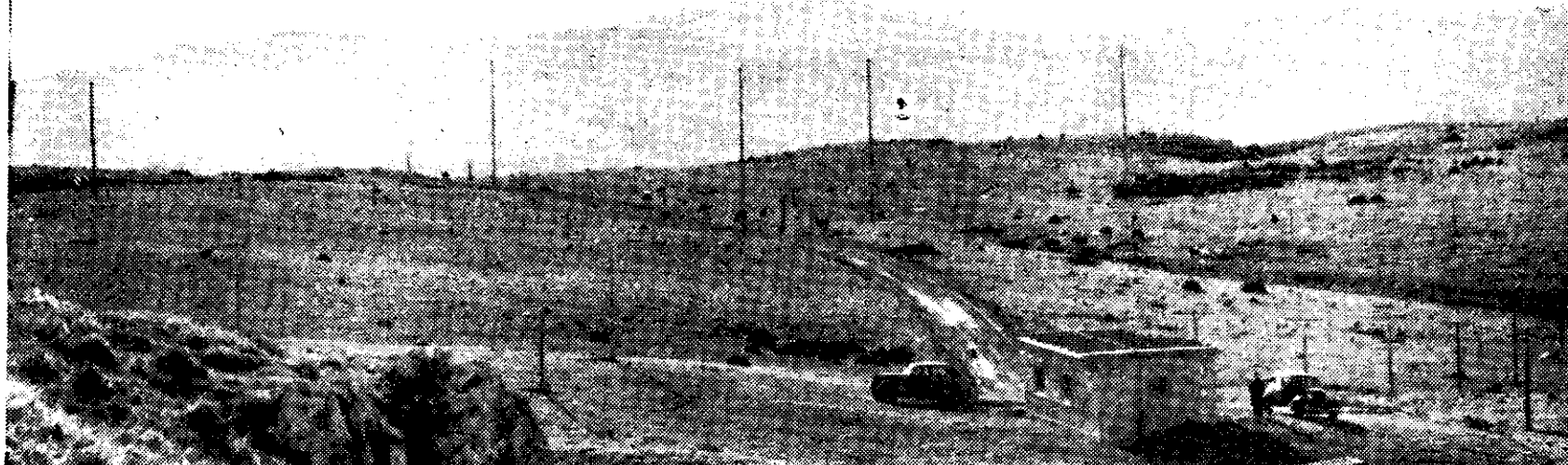
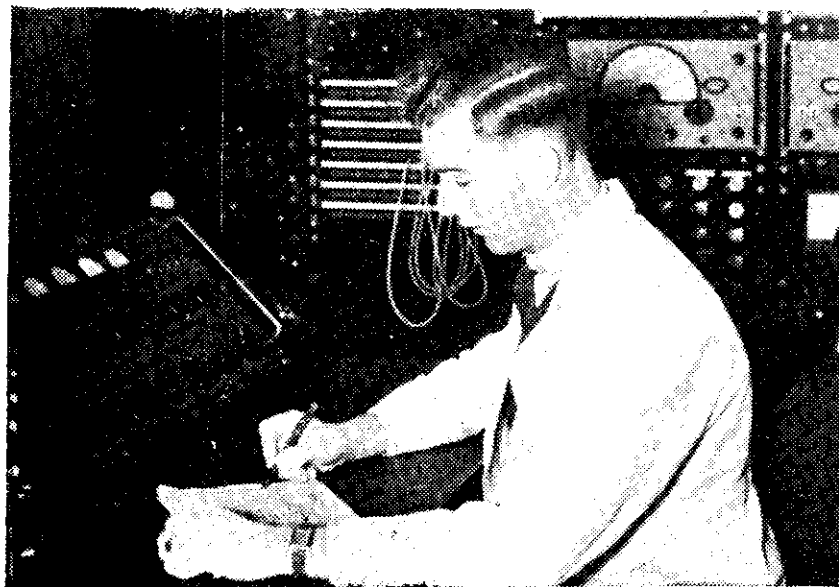


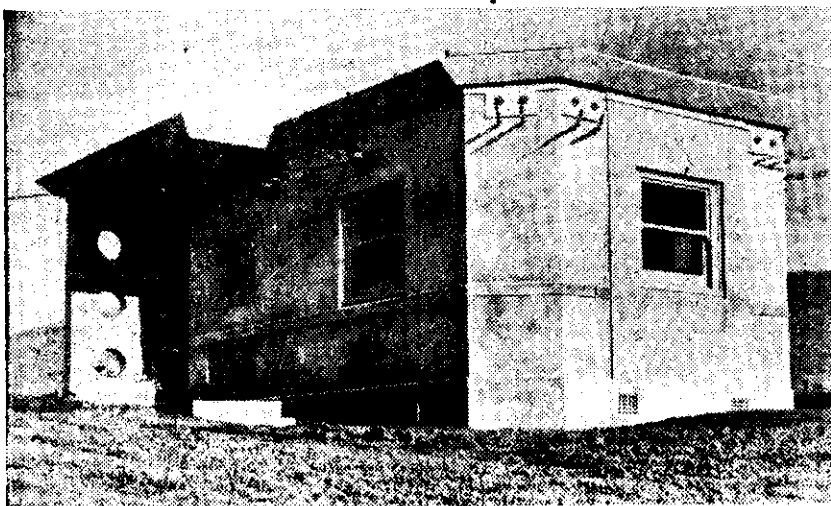
# WHERE WINDS AND WAVES COMPETE



## NEW NBS STATION AT MAKARA



Full records are kept of everything received at the station. Here a technician is writing up the merit of reception in one of the logs.



This building houses a mass of complicated receiving equipment. The radio waves from overseas may, if they wish, enter it through the holes in the decorative wind-break beside the door.

IT may be trite to say that a fortune awaits the experimenter who produces a cure for baldness or the medical research worker who finds a preventive for the common cold. But probably an even tidier bank balance will go to the account of one of the army of technicians who invents an attachment that will entirely eliminate static and other forms of interference from radio reception.

In its short life, so far, radio in New Zealand has grown and improved with amazing speed. But it has by no means reached perfection. With the object of giving listeners the best possible reception and service with the latest available mechanism, technicians are constantly adding to their stores of information and equipment. The most recent example of radio progress is at Quartz Hill, Makara, where a station has been established by the National Broadcasting Service to produce high quality reception of overseas short-wave stations for both the National and Commercial branches of the service. It has already shown itself to be a considerable improvement on the old station which was on a site just over the water from Paremata.

High up in the hills, in a bleak and lonely position, but the best available for the purpose, is a small building. Round about it is a forest of masts, aerials, and guy-wires through which the winds howl almost unceasingly. As compensation for the isolation of the site there is a magnificent view of the sea, with the South Island visible on a clear day. On one side of the door of the building is a piece of decorative stonework—presumably a wind-break. There are three openings in it, like portholes in the side of a ship. These, the technicians will tell the unwary and unsuspecting visitor, are to let the radio waves through to the hut. Radio men are something like sailors who, when a battleship is thrown open to the public, amuse themselves with a little harmless leg-pulling.

The occupants of the stations—all technicians of wide experience—work among a mass of apparatus, maps, graphs and charts. Their job is, in short, to select the best out of the enormous number of waves coming in and pass them on for relay through Station 2YA into New Zealand homes. Selection of the site alone meant a great deal of forethought and investigation. The ideal was a noise-free location, with no interference from power-lines, unobstructed and level so that directional aerials could be erected. Further to eliminate interference, the lines supplying the station with power have been laid underground.

What happens there? Nothing very startling to the layman, but a great deal from the technical man's point of view, as a staff reporter of *The Listener* discovered on a recent visit.

We were nearly, but not quite, human receiving-sets ourselves by the time we had absorbed all the information the experts were kind enough to give us. We discovered that from Makara all reception goes by land-line to 2YA, where it is selected for rebroadcasting or recording. But before the programmes get into the home, much has occurred at Quartz Hill. The overseas radio waves have been picked up by specially-designed aerials of various types which are directional. They are individually directed on the United Kingdom, San Francisco, Sydney and any other locations particularly desired. These, and six short-wave receivers, form the basis of the installation. Each receiver can be connected to any aerial.

### Seven Programmes at Once

Several separate programmes may be received simultaneously and recorded at 2YA in the city for later rebroadcasting. For instance, on V-E night, when the official end of the war with Germany was announced, land-lines from Makara to 2YA carried programmes from the United Kingdom, Canada, the United States, Australia, Russia, India and China. It sometimes happens that a BBC programme received direct from England

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