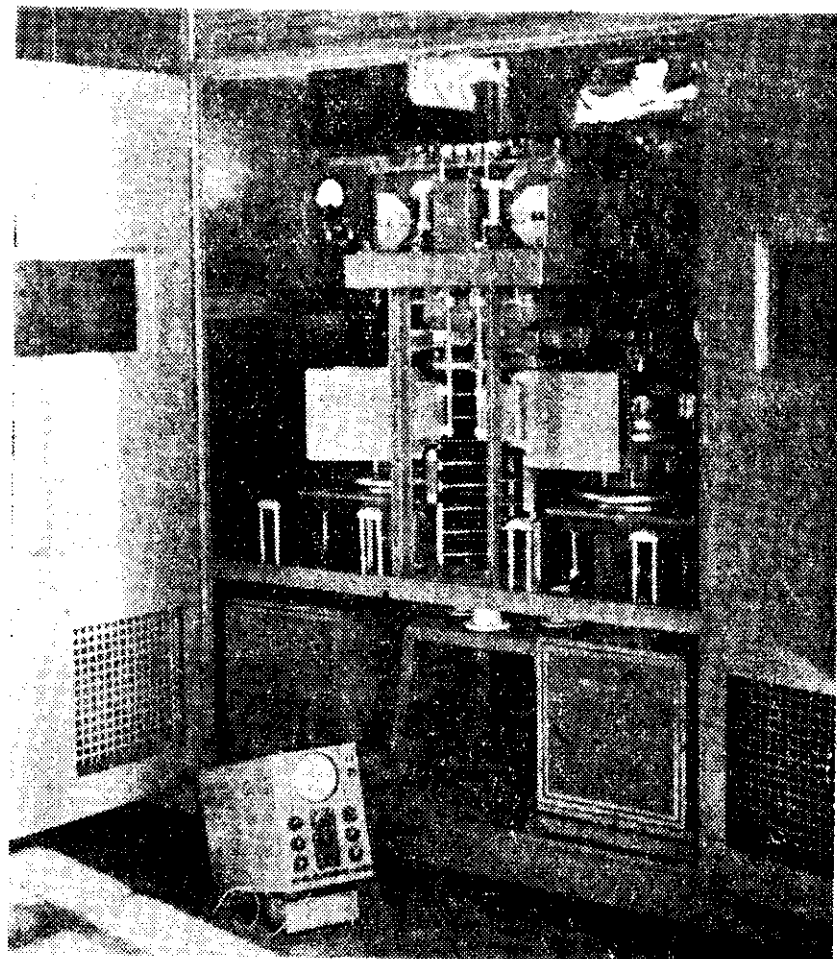


Above: Four fans in the basement take in air for cooling the transmitter. Right: A close-up of the final amplifier, with its big variable condenser in the middle. At the bottom are intakes for the air-cooling of two tubes. Below (Right): The dummy aerial. This is actually a unit of 2YA, but it is used for testing the short-wave transmitters. It consists of a bank of water-cooled resistors which dissipate the output, and enable a transmitter to be operated without a radiated signal. The technician is reading water temperature meters.



(continued from previous page)

The scope of the proposed transmissions means that they will be in a sense a tryout for any shortwave broadcasting on a bigger scale, such as New Zealand might subsequently use to draw attention to its tourist attractions.

Four two-hour programmes, reaching their intended listeners between 8.0 p.m. and 10.0 p.m. local time, will be sent out in four directions, starting in a north-easterly direction (Cook Islands, Ellice Islands, etc.), and sweeping westward until Australia is reached, finishing at 10.0 p.m. Australian time. This will happen over a period of about six hours New Zealand time, starting here about 5.0 or 6.0 p.m. and finishing towards midnight. The scheme resembles the BBC's overseas services, on a smaller scale.

No plans have been made yet about the type of programme to be sent out, as the broadcasts themselves are so far off, but a special programme staff will be assigned to the service, which will have a small studio in the city, and a control room of its own. It will be possible, if it is desired, to link up the shortwave service with any of the ordinary broadcast programmes emanating in Wellington.

Station ZLT7 is still on the air each evening for a few minutes to broadcast New Zealand news to the Pacific, a service that was begun in the first place for members of our own forces there,

but the new service will provide entertainment as well as news and talks. Australia is already providing shortwave services for the Pacific, including one in French ("Radio Australie") which is received at good strength in New Zealand during the evening, while the programme is on its way to Tahiti.

A full scale shortwave service from New Zealand, if it is put into operation later, will require much more powerful equipment, and an elaborate system of aeriels which will need a good deal of flat land. The aeriels in a shortwave station perform the same function as a searchlight reflector, confining the signal to a narrow beam. They need to be on flat land because the effective wave goes off at an angle very close to the horizontal and so the aeriels need to be on the flat, away from obstructions. Although the transmitters are all ready for operation, and have actually been tested on the air, no purpose would be served by operating them now without a system of proper aeriels. They would be like searchlights without reflectors—you might as well hold up a naked electric light.

The reflectors, or "beam arrays," will have to be installed by Post and Telegraph riggers when they can be spared. There will be a separate array for each sector to be served, and a complicated switching gear is being built so that they can be switched into use by remote control from the transmitter building.

