

One of the small aluminium-sheathed shelters built at the base of the R.C.M.P. radio towers at Brandon, Saskatoon, Swift Current and Calgary.



distance of 100 miles when the set is at an altitude of 500 feet—an invaluable aid this in conjunction with radio cars for coordinating searches. Regarding the term “three-way radio”, which is usually applied where direct car-to-car communication is concerned, it is worth noting that under our system the same results are achieved by channelling messages from our mobile units through the stations.

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**B**ROADCAST stations, minus electronic equipment, were purchased from CJRC at Winnipeg and CKRM at Regina, both of them fitting in nicely with the Force’s over-all needs; the CKRM tower which is 200 feet high was dismantled and shipped to Brandon where it was re-erected, the other one being retained in Winnipeg. At Edmonton, too, we were fortunate for our base-station equipment there is located at the Royal Canadian Corps of Signals’ establishment just west of the city; the Force’s F.M. receiving antenna at this point is mounted on top of a 300-foot army transmitting tower, and a 150-foot lattice steel tower, erected on an adjoining site which the Force purchased, accommodates the transmitter antenna. A 150-foot mast similar to the one at Edmonton is in use at Swift Current, while the remotely-controlled equipment at Lethbridge is on the roof of the 200-foot government grain elevator. Winnipeg

uses a 404-foot tower for receiving and the 125-foot tower of the original system for transmitting, while three new 300-foot towers were purchased for Regina, Saskatoon and Calgary.

The reliable range of the base-station transmitters, excepting the one at Lethbridge, is about 100 miles, though under ideal conditions messages can be picked up at much greater distances than that; for example the R.C.M.P. station at Dundas Harbour Detachment on Devon Island in the Eastern Arctic has occasionally received transmissions, loud and clear, from several of the Force’s prairie radio stations. The reliable range of the car transmitters depends upon the height of the base-station receiving aerial. Except at Lethbridge and Swift Current where the range is from 30 to 50 miles according to the terrain, at all base stations it is from 50 to 80 miles depending on mast height. However, communication is possible beyond the reliable range of this equipment if the car is on a rise of land, and at times the reliable range has been exceeded by as much as 40 per cent. At Lethbridge, F.M. is used to and from the cars, hence the coverage is the same both ways.

A small “box of tricks” added this winter to each intermediate frequency transmitter gives an equivalent gain in transmitted power of over ten to one. Known as clippers, these devices cause the modulation to sound “ragged”, but