

## A MOBILE OBSERVING STATION FOR STUDYING THE ERROR OF CRDF

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CRDF errors disturbed by the causes of the neighbouring configuration of the ground and objects have been found by making a comparison between the data observed simultaneously at many points around the CRDF base station under calibration. But because of difficult installation and movement of the measuring apparatus and of insufficient communication between the base and mobile stations, scarcely any valuable data have been gathered, so that no fully reliable results, concerning the disturbance errors of CRDF, have yet been obtained. In order to solve these difficulties, it is attempted that the mobile observations are made by a large-sized automobile loaded with the measuring apparatus. This automobile for measuring the errors of CRDF will be completed in March and will be used for the study of errors of CRDF from May. The measuring apparatus consists of a conventional 3-channel CRDF for atmospherics and a 2-channel CRDF for VLF communication. This 2-channel CRDF is employed to detect the disturbance error of the measuring point for the known direction of the commercial transmitter. Their antenna is a crossed loop type of wide band and is commonly used for both CRDF's to eliminate the installation error of the antenna to each other. Moreover, a field intensity meter of atmospherics ranging 10–50 Kc/s, a whistler recorder, and a VHF-FM radio of 152.05 Mc/s, 25 W to keep in touch with the base station are also equipped on this car. An engine generator of 5 KVA, 60 c/s is installed to supply electricity to all measuring apparatus described above. And the facilities for lodging and cooking are also provided in this car for long travelling observations.