

C-01 Broadcast station planning

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With the deregulation of the radio and television broadcasting, many broadcasters came into operation. They started their operation without having a master plan for their coverage. Therefore their networks could not deliver good video or audio signal to most of the viewers and the listeners.

The main objective of the research was to find out the effectiveness of the television networks operating in Sri Lanka. Another objective was to find out the problems in their networks from the transmission point of view within the network itself and all in total.

Data was collected on the location of the transmitter stations, operating frequencies, power of operation and the altitude of the location. Most of the data was taken from the Exhibition directory of Institution of Engineers, Sri Lanka, 1993 and others were taken on personal contacts. Data was analysed using frequency planning and signal transmission models. Data was tabulated and for each network, plotted on a Sri Lanka map.

It was found that there were many problems due to poor network planning within each network itself and all in total. Of those problems, co-channel interference and adjacent channel interferences were observed. It was also observed that with respect to a given viewer or a listener the broadcast stations are scattered around him. Therefore it is very difficult to receive signals from all the stations with a single antenna. Due to the violation of basic principles in station/network planning, there are adjacent channel and co-channel interferences disturbing the viewing.