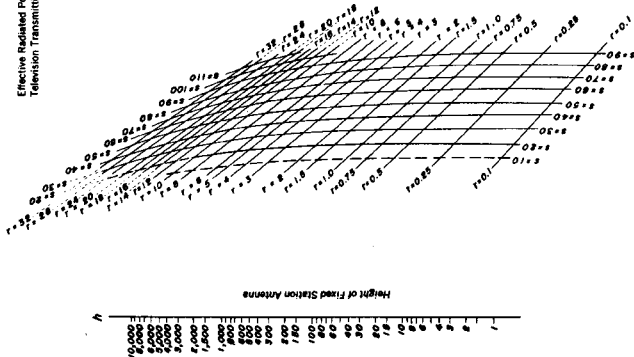


FOR CHANNEL 4

CHART FOR DETERMINING RADIUS FROM FIXED STATION IN 72-76 MHz BAND TO INTERFERENCE CONTOUR ALONG WHICH 10% OF SERVICE FROM ADJACENT TELEVISION STATION WOULD BE DESTROYED

Effective Radiated Power of TV Station 100 kw.
 Television Transmitting Antenna Height 500 ft.



EXPLANATION OF SCALE HEADINGS:

P = effective radiated power of fixed 72-76 MHz station in watts and equals the power output of the transmitter adjusted for transmission line loss and antenna gain. In symbols

where P_{out} = output of transmitter in watts
 L = transmission line efficiency, %
 G = power gain of the antenna with respect to a half wave dipole antenna in the main lobe.

For a directional antenna use the power in the main lobe.
 h = height in feet of the center of the transmitting antenna array of the fixed 72-76 MHz station with respect to the average level of the ground surface in the direction of the TV station. (The method for determining this height is explained in detail in the TV Broadcast Rules.)

r = separation in miles between the television station antenna and the 72-76 MHz fixed station antenna.

r = distance in miles from the 72-76 MHz fixed station antenna to the contour at which the service would be reduced by 10%. The distance r is measured from the 72-76 MHz antenna in the direction of the TV antenna.

f = frequency in MHz of 72-76 MHz fixed stations.
 NOTE: Interference contours hatched areas are not available for assignment.

DIRECTIONS FOR USING THIS CHART:

1. Draw a straight line connecting P and h for the 72-76 MHz fixed station and continue to the Q axis.
2. From the intersection of the P-h line and the Q axis, draw another straight line to f .
3. Where the second line intersects the S-r CURVE, read the value of r for the appropriate value of S.

