

## **Methodology**

The topographic data utilized in this report is the N.G.D.C. 30 arc second database provided by RadioSoft in \trn format. Individual elevations were determined using the required four-point interpolation. The radial height above average terrain (HAAT) was calculated at intervals along the radials of 0.1 kilometer along a path from 3 to 16 km from the applicable station. The Commission's own computer algorithm, utilizing code and data points published in Report No. RS 76-01 by Gary C. Kalagian augmented by private correspondence with Mr. Kalagian, was then used to determine the distance to the pertinent contours based upon the radial HAAT and operating ERP at each azimuth. This process was repeated at 1 degree intervals to determine the coverage, protected and interfering curves utilized here. The average HAAT is the average of the 36 radials occurring at exact multiples of 10 degrees. The class contour distance is computed from the average HAAT and the maximum ERP. The population data utilizes population centroids from U.S. Census 2000 (PL-94-171) digital census data taken at the State-County-Voting District/Remainder-County Subdivision, Place/Remainder-Census Tract/Block Numbering Area-Block. The 2000 Census block centroid data was obtained from redistricting release of Census 2000, found on the US Census web site. In the case of TV-6 showings, group block data, rather than block data, is used (unless otherwise specified) in order to facilitate the presentation. The maps, unless otherwise indicated, are computer generated using U.S. Geological Survey Digital Line Graph data which was originally digitized from 1:2,000,000 scale maps.

For 307(b) analysis of each application, the software gathers the population centroids within the 1mv/m contour of the proposed station. The total of the population in all these centroids is reported as the total population. The program then marks all those centroids which fall within the 1 mv/m coverage contours for each of the authorized stations near the area of interest and in the channels 201-220. Only one mark per Facility ID is allowed, preventing a licensed station and a construction permit from assigning two marks to a single centroid. The total of all the unmarked centroids is the first NCE total, and the total of all the centroids with exactly one mark is the second NCE total. These are then reported in the tabulation. The sum of the area of each one degree sector is computed as pi times the distance to the contour squared/ and divided by 360. The total area is the sum of the sector areas. The area is corrected by subtracting the area over open water as specified in §73.313, which is measured with a digital planimeter.

## **Certification**

I declare under penalty of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

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