

TV6 Calculation for Oak Ridge, TN

TV6 Call sign
WATETV

Fcc Search
72.2 dBu

City
Knoxville

State
TN

COR AMSL (m)
858

HAAT(m)
548.2999877

Latitude
360013

Longitude
835634

+

TV ERP (kW)
100.000

FM Horizontal ERP
0.0100

☒ Outside City Of 50k

TV

FM

68

76

2

Plot Scale
1500

☒ DLG ☐ AJPI

☒ Hide Zeros

☒ Plot All Centroids

☒ Plot Inside Centroid Counts

☐ Plot All Centroid Counts

☒ Plot Contours

☐ Print All Centroids to -3 dBu

☐ Print Centroids

☒ Print TV Contour Table

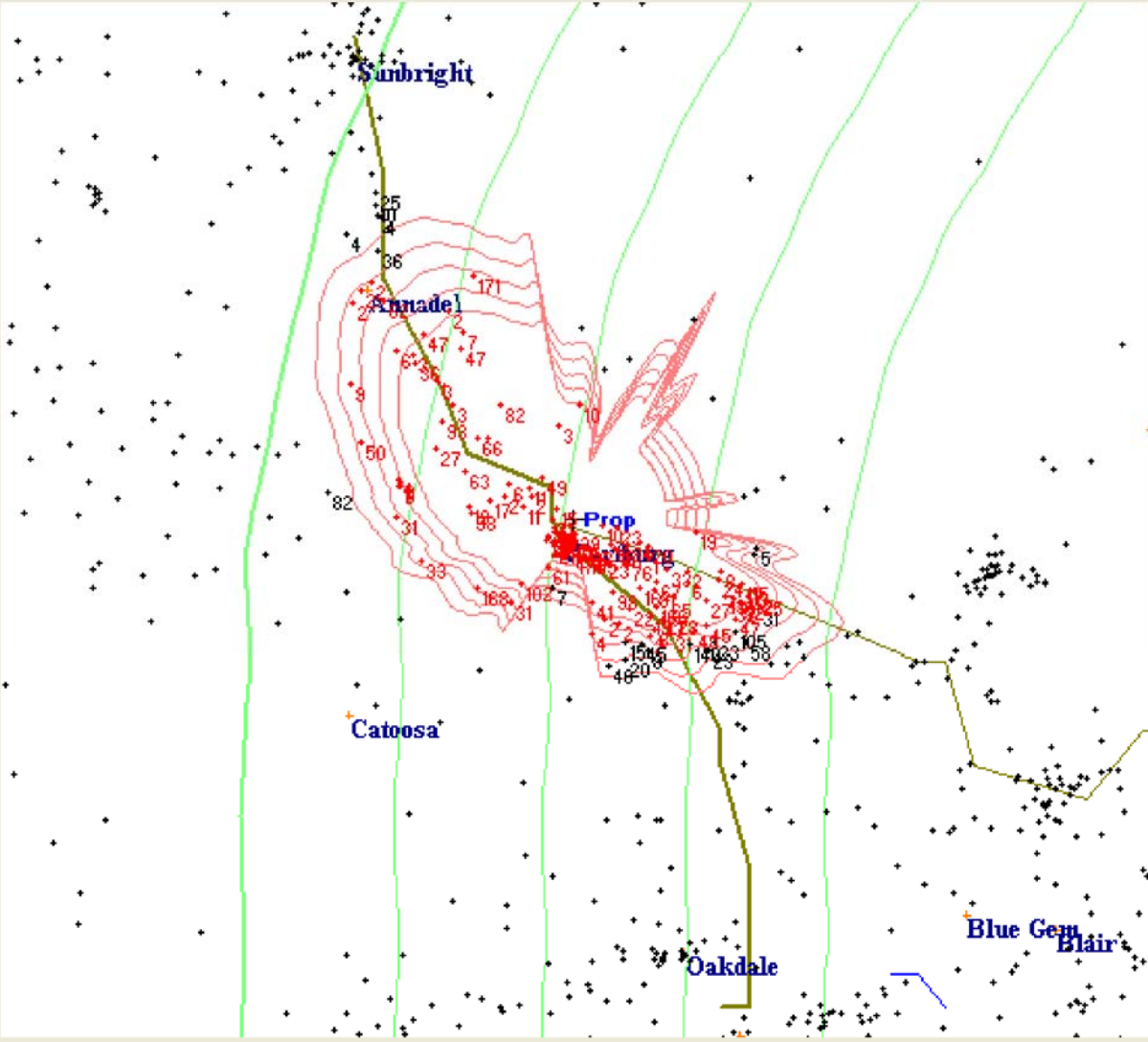
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Channel Six TV Protection Study

WATETV 06 100.000kW ERP 858.0M COR AMSL 548.3M HAAT Lat. 360013 Lon. 835634
Prop 204 11.000kW ERP 604.0M COR AMSL 147.9M HAAT Lat. 360640 Lon. 843532

Distance from TV to FM 59.7186km Azi 101.5degr Rev Azi 281.5 degr
Cutoff radius for channel 204 is 235 km

The FM horizontal polarization component is 0.010 kW,
and the area of just perceptible interference does not intersect a city of 50k,
so the effective ERP is (Pw/40+Ph) 0.2850kW

The TV6 signal strength at the FM transmit site is 72.2 dBu
This strength is inside the 68 dBu Grade A contour,
preventing a 6 dB bonus to be applied to the allowable FM signal
to F centroids (centroids in the angles between the FM station and the TV station)

TV Contour	Undesired/Desired Ratio	Total	Directional Total
68	1.2	69.2	75.2
70	0.8	70.8	76.8
72	0.3	72.3	78.3
74	-0.2	73.8	79.8
76	-0.5	75.5	81.5

Population in affected area 3787