

Exhibit 18

TV Channel 6 Study

The proposed site is 18.42 km from WWCTV, a TV channel 6 station in Thomasville, GA. This is well within the guideline of 177 km cutoff shown in Table A, §73.525 of the Commission's rules for channel 216. This exhibit demonstrates that the proposed station will not cause interference in an area containing more than the 3,000 persons as specified in §73.525(c)(2). This is possible because the proposed site is in a rural location with low resident population and employs elliptically polarized radiation.

The affected population in the area of interference was determined as follows:

1) A chart was prepared tabulating the data from §73.599 Figure 1 for channel 216. It shows the 90 dBu protected contour of the TV station, the associated undesired/desired ratio, and the resultant interfering contour (= TV6 protected contour + U/D ratio) for the proposed FM station to create "just perceptible" interference.

An fourth column is included showing the Directional Total (TV6 + U/D + 6 dB) indicates the allowable FM interfering contour at azimuths where the directional characteristics of the TV receiving antenna reduce the FM signal. Outside the Grade A (68 dBu) protected contour of the TV station, the U/D column of the chart is used for azimuths going clockwise from 110 degrees to 250 degrees from the line between the FM and the TV stations. Outside the Grade A contour from 250 to 110 degrees, the U/D + 6 dB column is used. Inside the Grade A contour, the U/D column is used from 110 to 250 degrees and from 290 to 70 degrees. Elsewhere the U/D + 6 dB is used (§73.525(e)(1)(iii)).

In the instant case, the proposed station lies inside the grade A contour.

2) Since the proposed FM antenna is elliptically polarized, a power correction is made for the vertical polarization. The equivalent power is $H + V/40 = 90 + 100/40 = 92.5$ kW, since the predicted area of interference lies entirely outside the limits of a city of 50,000 persons (§73.525(e)(4)(ii)). This value is used in all contour subsequent calculations in this exhibit relating to the proposed station.

3) A map was prepared showing the predicted TV6 protected contours in the area of interest and the associated predicted FM interfering contours over the same area. The first contour plotted is the 90 dBu protected TV contour and the corresponding interfering FM contours. Contours are calculated according to the procedures specified in §73.684 for the TV protected contours and §73.313 for the FM station interference contours.

A line was drawn from the proposed site toward the TV6 station (338.9 degrees True), and additional lines at 110 and 250 degrees from that line and running through the proposed site. These later lines separate the area permitting the 6 dB directional bonus (on either side of the line to WCTV) from the areas not allowing the bonus (toward and opposite WCTV).

4) A point was plotted at each point where the TV6 protected contour intersects the associated FM interfering contour. These points were joined by smooth line segments. The directional and non-directional areas are connected by straight line segments. The closed curve created designates the "area of just perceptible interference". This manually drawn curve largely encompasses barren land and water, and could therefore be expected to be sparsely inhabited.

5) C.F.R. §73.525(e)(2)(iv) provides for higher precision than the assumption of uniform population density underlying §73.525(e)(2)(ii) and (iii), allowing "more detailed population data" to be used. Increasing the spatial resolution to the census block group level, the census block group centroids were plotted by latitude and longitude. Several of the centroids were found to be inside the area of interference. This is illustrated in the TV6 Population Scattergram. The grouped block centroids **within** the "area" total 1,936 persons.

These results can be cross-checked using the new centroid-by-centroid analysis shown in the last page. Most of the data in the chart is self explanatory. The Max FM column is cubic spline interpolated from the TV6 interpolation table, using the exact TV6 signal value. The FM Ovr column is the excess of the FM signal ("FM dBu") over the Max FM allowed (the difference between the preceding two columns). The centroids where the FM Ovr is positive are the ones inside the "Area of Just Perceptible Interference" are plotted in red. Those centroids inside the area are labeled "In" and total 1,936 persons, within the 3,000 maximum count required by §73.525(c)(2).

Since it has been demonstrated that the population in the "area of interference" is less than the statutory limit of 3,000, the Commission may properly grant the proposed construction permit.

Channel-Six TV Protection Study

WCTV LI 06Z 3C Dom Int 97.700 kW 619 M HAAT V HY
Thomasville GA 667.0 M COR AMSL
Lat= 30 40 13.0, Lng= 83 56 26.0
Gray Television Licensee, BLCT19870630KF
Fac ID# 31590, Cutoff Date=53897628
Dist.=18.41901 km, Azi=339.0°, Rev Azi=159.0°

Direct line HAAT Grade B, 47 dBu= 129.79 km & Grade A= 73.64 km

Distance from reference to Grade B = -111.37 km

Cutoff Dist from Full Service or Class CA= 177

Maximum Co-located power= 67.6 kW

WCTV Signal Contour at Reference location = 96.1 dBu

CH. 216, U/D ratio = 3.5 dB, Maximum FM signal = 93.5 dBu , add 6 dB if within angle.

TV/FM D to U values

47.0	75.0		55.0	71.7		63.0	72.6		71.0	77.4		79.0	84.0		87.0	90.9
48.0	74.4		56.0	71.6		64.0	73.0		72.0	78.2		80.0	84.8		88.0	91.7
49.0	73.8		57.0	71.6		65.0	73.4		73.0	79.0		81.0	85.7		89.0	92.6
50.0	73.2		58.0	71.5		66.0	74.0		74.0	79.8		82.0	86.6		90.0	93.5
51.0	72.8		59.0	71.5		67.0	74.6		75.0	80.6		83.0	87.5		91.0	93.5
52.0	72.4		60.0	71.8		68.0	75.2		76.0	81.5		84.0	88.3		92.0	93.5
53.0	72.0		61.0	72.0		69.0	75.9		77.0	82.3		85.0	89.2		93.0	93.5
54.0	71.9		62.0	72.3		70.0	76.7		78.0	83.1		86.0	90.0		94.0	93.5

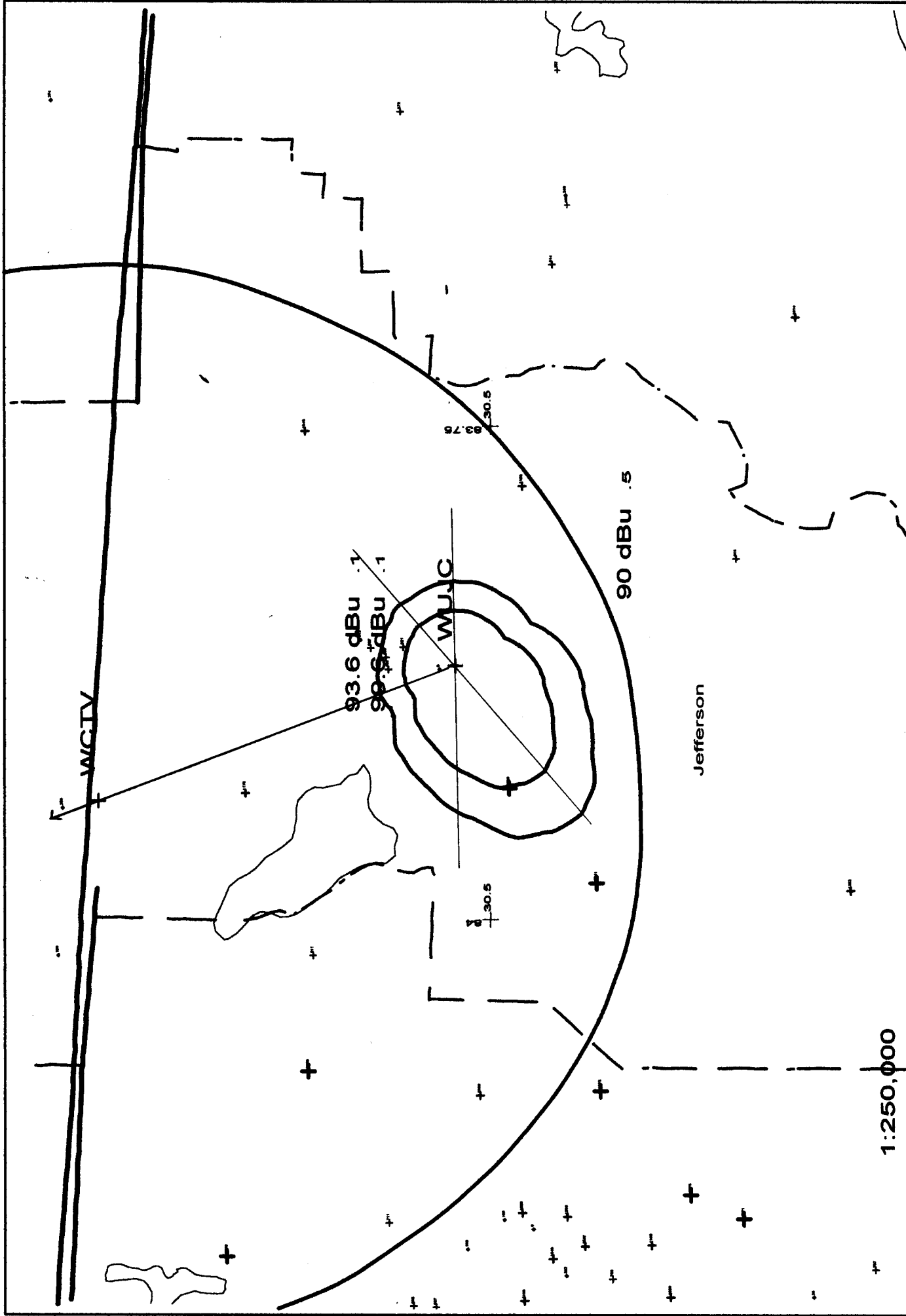
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TV6 Interpolation

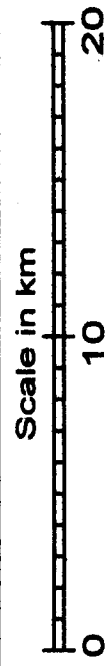
Channel 216 - 91.1 MHz

Report Radius 177 km.

TV Contour	Undesired/Desired Ratio	Total	Directional Total
90	3.6	93.6	99.6



1:250,000



WUJC 216C1 92.5kW 172M AMSL
N. Lat. 30 30 55 W. Lng. 83 52 17

FL St Marks TV6
Bob Moore - 01/07

99.6 dBu .1

WUJC

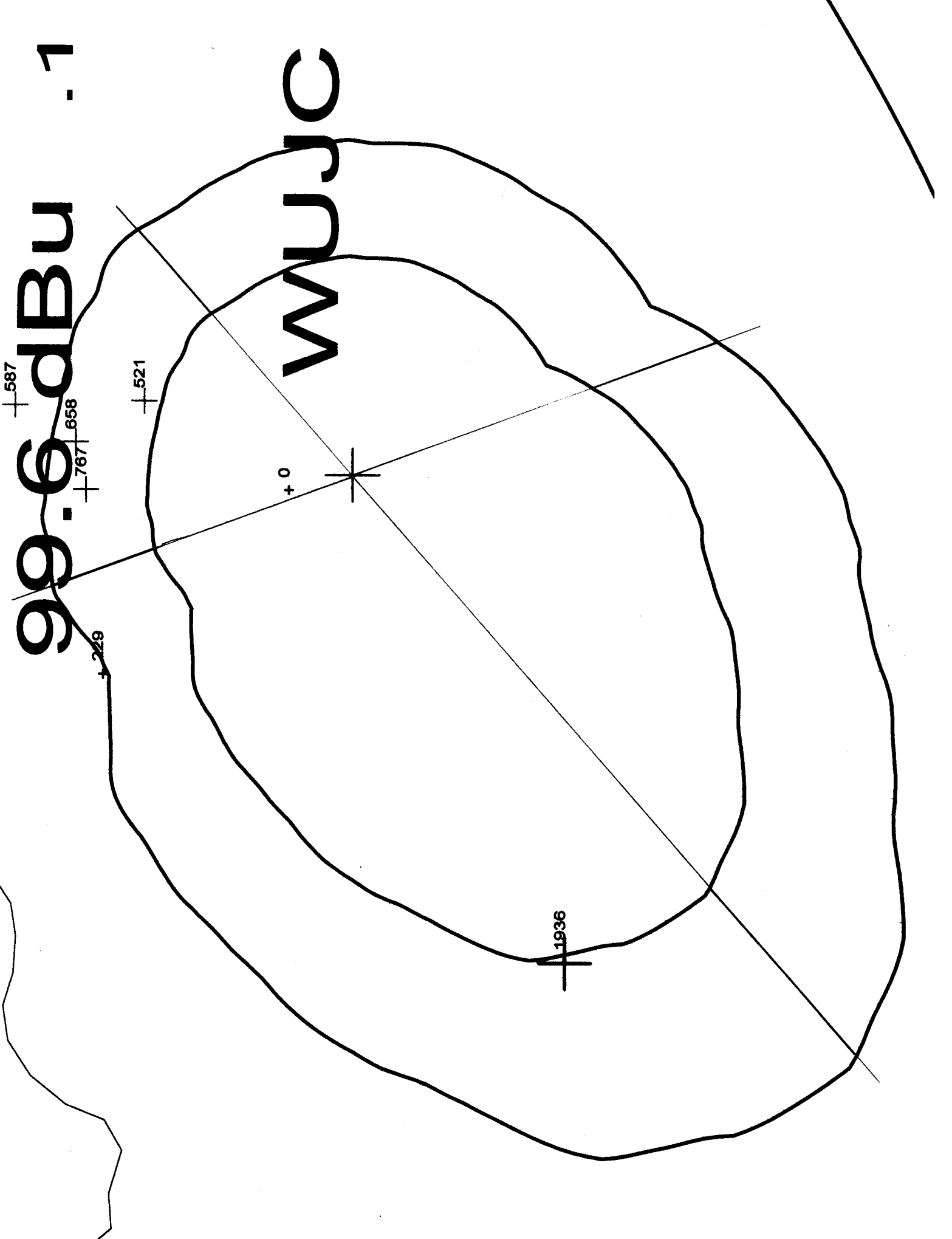


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WCTV 06 97.700kW ERP 667.0M COR AMSL 619.0M HAAT Lat. 304013 Lon. 835626
WUJC 216 100.000kW ERP 172.0M COR AMSL 139.3M HAAT Lat. 303055 Lon. 835217
Distance from FM 18.4190km Azi 338.9degr Rev Azi 158.9 degr

The FM horizontal polarization component is 90.000 kW,
and the area of just perceptible interference does not intersect a city of 50k,
so the effective ERP is (Pv/40+Ph) 92.5000kW

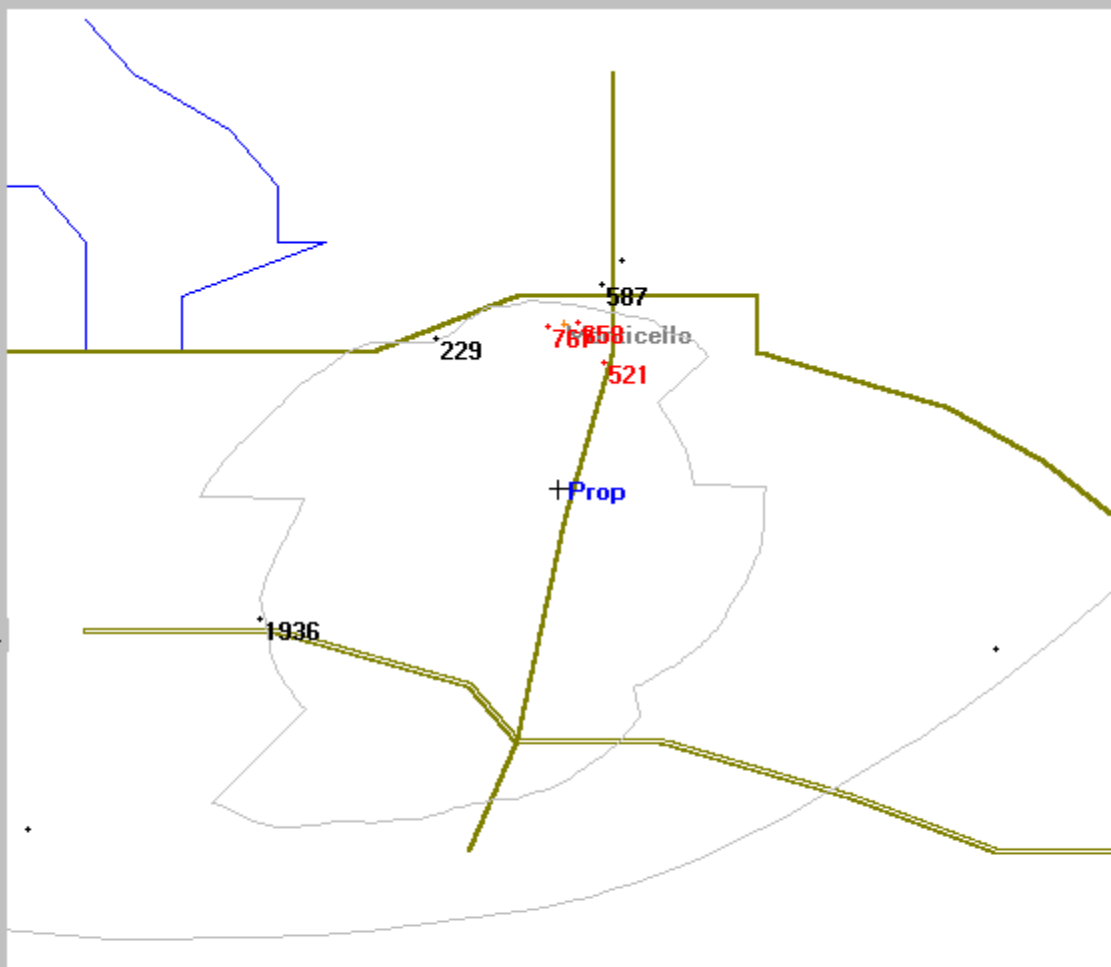
TV6 signal contour at FM location is 96.1 dBu
This strength is inside the 68 dBu Grade A contour,
preventing a 6 dB bonus to be applied to the allowable FM signal
to F centroids (centroids in the angles between the FM station and the TV station)

TV Contour	Undesired/Desired Ratio	Total	Directional Total
90	3.6	93.6	99.6

Ident.	Lat.	Lon.	Dist	Angle	TV6 dBu	Max FM	FM dBu	FM Ovr	Count	I/O	SubTot
FL4761	302932	835602	6.5	247	90.00	99.54S	99.24	-0.30	1936	Out	0
FL4760	303233	835349	3.9	321	90.00	93.54	93.32	-0.22	229	Out	0
FL4756	303218	835143	2.7	20	90.00	93.54	98.25	4.71	521	In	521
FL4754	303241	835225	3.3	356	90.00	93.54	95.61	2.07	767	In	1288
FL4753	303244	835202	3.4	7	90.00	93.54	94.83	1.29	658	In	1946
FL4752	303308	835145	4.2	12	90.00	93.54	91.48	-2.06	587	Out	1946
Population in affected area											1946

Min Tv6 contour 90.0 dBu, Max Tv6 contour 90.0 dBu, Max In Distance from FM 3.4 km

WCTV		Fcc Search	
City		State	
Thomasville		GA	
COR AMSL (m)		HAAT(m)	
667		619	
Latitude		Longitude	
304013		835626	
TV ERP (kW)			
97.7			
<input checked="" type="checkbox"/> TV Contours			
90		90	
Plot Scale		Compute	
2500		<input checked="" type="checkbox"/> DLG	
FM Horizontal ERP			
90		<input checked="" type="checkbox"/> Outside City Of 50k	
<input checked="" type="checkbox"/> Hide Zeros			
<input checked="" type="checkbox"/> Plot All Centroids			
<input checked="" type="checkbox"/> Plot Inside Centroid Counts			
<input type="checkbox"/> Plot All Centroid Counts			
<input checked="" type="checkbox"/> Plot Contours			
<input type="checkbox"/> Print All Centroids to		-3 dBu	
<input checked="" type="checkbox"/> Print Centroids			
Print Form		PrintText	



Channel Six TV Protection Study

WCTV	06	97.700kW	ERP	667.0M	COR	AMSL	619.0M	HAAT	Lat.	304013	Lon.	835626
Prop	216	100.000kW	ERP	172.0M	COR	AMSL	139.3M	HAAT	Lat.	303055	Lon.	835217

The FM horizontal polarization component is 90.000 kW,
and the area of just perceptible interference does not intersect a city of 50k,
so the effective ERP is $(P_v/40+P_h)$ 92.5000kW

Distance 18.4190km Azi 338.9degr Rev Azi 158.9 degr

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Population in affected area 1946

Min Tv6 contour 90.0 dBu, Max Tv6 contour 90.0 dBu, Max Distance from FM 3.4