

Construction Permit Application

Channel 51 Television

Marianna, FL

Channel 51 Zone III

5000 Kw ERP 98 M HAAT

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Engineering Statement

Introduction

Media Properties, LP, by this application, requests a Construction Permit for the Channel 51 Television allocated to Marianna, FL.

Allocation Considerations

Channel 51 is allocated to Marianna, FL. Media Properties, LP proposes to construct the facilities on an existing tower site located west of the City of License. The proposed coordinates for the facility are:

30-47-01 North Latitude

85-15-18 West Longitude

As is demonstrated in Table 2, the proposed site has no allocation difficulties. The site is not within the present HDTV freeze zone. There is no impediment to constructing at this site. Figure 2 demonstrates the area of coverage. Marianna, FL, the City of License, is covered by the City Grade Contour of the proposed new TV. The area covered by the Grade B contour of the proposed facility is 12,674 Sq. Km. The population within the Grade B contour is 227,621 based on the 1990 US Census. Media Properties, LP will install a full powered backup generator for power so that service to the public will be maintained should utility power fail.

Environmental Considerations

Site Considerations

The proposed Bogner BUH320-H Channel 51 UHF antenna will be side mounted on an existing 141 meter overall height tower. The tower facility will be shared with WJAQ FM radio station and is the radiating structure for WTOT AM

Radio on 980 kHz in Marianna, FL. Proper grounding and bonding techniques along with pre and post construction measurements on the AM facility will assure that there is no change to the radiating system of WTOT. Measurements will include field strength and base impedance measurements. The Vertical Tower Plan (Figure 3) included within this document demonstrates the installation. The use of this site for the new UHF TV antenna system violates no known local land use policies. The tower has been made available to Media Properties, LP for use as the new facility antenna site. The site is not near any officially designated wilderness area, wildlife preserve, natural flyway, nor any significant scenic, cultural, historic, architectural, archeological or recreational features. There will be no change in the character of the site nor in grade of land surface. The site will have no change in human presence after the construction of the facility is finished. The site is presently used as an FM antenna site by WJAQ FM station and the tower is the radiating structure for WTOT AM in the Marianna, FL area. The construction of the proposed transmitting facility will have no adverse environmental impact.

Non-Ionizing Radiation

The proposed system was evaluated using the methods outlined in OST Bulletin 65. The points picked for analysis begin at the base of the proposed station and are calculated every 20 meters toward the north. All high powered FM and TV stations and construction permits located near the proposed site have been included in the study. Values for heights above ground, power output, and antenna radiation patterns have been chosen for worst case values.

As outlined in OST Bulletin 65, the formula for the near field power density of an FM station at a distance R is:

$$S = \frac{2.56(EIRP)}{4\pi R^2}$$

where:

EIRP = Effective Isotropic Radiated Power

R = Distance to point in Km.

The formula for the power density of a TV station is:

$$S = \frac{(2.56)(1.64)(100)(F^2)[0.4(VERP)+AERP]}{4\pi D^2}$$

where:

S = highest power density in microwatts/sq.cm predicted at ground level

VERP = total peak visual ERP in watts

AERP = aural ERP in watts

F = typical relative field factor in the downward direction (-60 to -90 elevation)

D = distance from ground to center of radiation in meters

These two formulas were used in a worst case situation to calculate each station's contribution percent to the overall power density level at test points throughout the antenna installation. As is demonstrated in Table 1, the addition of the proposed full power Channel 51 TV facility increases the power density level at the antenna farm site to a worst case level that is 722.50% above the desired OSHA limit. The calculated level reaches less than the 100% level at a distance of 200 meters from the base of the proposed tower. The contribution of WTOT AM at this distance was calculated and is insignificant. Media Properties, LP will perform site radiation measurements upon construction of the facility. The site will be fenced and access will be prohibited or limited to provide full protection to the public and any maintenance personnel. Media Properties, LP will work with all

parties involved at the site to assure that personnel are protected from dangerous levels of RF non-ionizing radiation. This will include reducing power or turning the station off should personnel need to operate in the exposed areas of the antenna installation. Media Properties, LP will join in any proposed protection plan and desires to eliminate any possibility for overexposure at the site.

The general public is not now allowed access to the site. The site has barriers and fences to prevent public access. Further barriers and fences will be constructed if necessary to prevent public exposure to non-ionizing radiation. Media Properties, LP will cooperate with others at the antenna farm in any way necessary to prevent public access to the areas of the site deemed hazardous. Due to these precautions, the addition of the proposed television facility will not be a non-ionizing radiation hazard to the public.

Electromagnetic Compatibility

The proposed antenna site is within 200 feet (60.96 meters) of existing FM and AM broadcast facilities. Table 5 lists all existing and proposed AM, FM, TV Stations and Landing Sites near the proposed transmitting facility. There are no FM or TV transmitters that may produce receiver-induced intermodulation interference at the distances and powers proposed in this application. Media Properties, LP will provide filters if deemed necessary at the transmitter site to prevent local intermodulation. Media Properties, LP accepts full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to a grant of this application. There will be no interference to existing or proposed AM stations.

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Antenna # 1 - TV Broadcast
 =====

ID : Channel 51

 Frequency : 695.0 Mhz Rad Cent : 79.0 meters AG
 Power
 Hori Vis : 5000.000 kW Hori Vis : 5000.000 kW Bearing : 0.0 degrees
 Hori Aur : 1100.000 Distance : 0.0 meters
 Vert Vis : 0.000
 Vert Aur : 0.000

Antenna # 2 - FM Broadcast
 =====

ID : WJAQ

 Frequency : 100.9 Mhz Rad Cent : 80.0 meters AG
 Power
 Hori Pol : 5.900 kW Bearing : 0.0 degrees
 Vert Pol : 5.900 Distance : 0.0 meters

Point Data
 =====

Point #	----- Location -----			% of Allowed Power Density
	Bearing	Distance - meters -	Elevation - meters AG -	
1	0.00	0.00	0.00	722.50
2	0.00	20.00	0.00	678.99
3	0.00	40.00	0.00	575.09
4	0.00	60.00	0.00	458.23
5	0.00	80.00	0.00	356.74
6	0.00	100.00	0.00	277.67
7	0.00	120.00	0.00	218.49
8	0.00	140.00	0.00	174.52
9	0.00	160.00	0.00	141.64
10	0.00	180.00	0.00	116.71
11	0.00	200.00	0.00	97.53
12	0.00	220.00	0.00	82.54
13	0.00	240.00	0.00	70.64
14	0.00	260.00	0.00	61.08
15	0.00	280.00	0.00	53.28
16	0.00	300.00	0.00	46.86
17	0.00	320.00	0.00	41.51
18	0.00	340.00	0.00	37.02
19	0.00	360.00	0.00	33.20
20	0.00	380.00	0.00	29.94
21	0.00	400.00	0.00	27.13
22	0.00	420.00	0.00	24.69
23	0.00	440.00	0.00	22.57
24	0.00	460.00	0.00	20.70
25	0.00	480.00	0.00	19.06
26	0.00	500.00	0.00	17.60

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Power Density Calculations at Point # 1
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	79.0	-90.00	1.000	1.000	3100.0	2.317	16.5952	716.338
2	0.0	80.0	-90.00	1.000	1.000	11.800	1.000	0.0616	6.160
Total of Allowed Power Density									722.498

Power Density Calculations at Point # 2
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	81.5	-75.79	1.000	1.000	3100.0	2.317	15.5956	673.191
2	0.0	82.5	-75.96	1.000	1.000	11.800	1.000	0.0580	5.798
Total of Allowed Power Density									678.989

Power Density Calculations at Point # 3
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	88.5	-63.15	1.000	1.000	3100.0	2.317	13.2088	570.165
2	0.0	89.4	-63.43	1.000	1.000	11.800	1.000	0.0493	4.928
Total of Allowed Power Density									575.093

Power Density Calculations at Point # 4
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	99.2	-52.78	1.000	1.000	3100.0	2.317	10.5244	454.290
2	0.0	100.0	-53.13	1.000	1.000	11.800	1.000	0.0394	3.942
Total of Allowed Power Density									458.232

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Power Density Calculations at Point # 5
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	112.4	-44.64	1.000	1.000	3100.0	2.317	8.1932	353.664
2	0.0	113.1	-45.00	1.000	1.000	11.800	1.000	0.0308	3.080
Total of Allowed Power Density									356.744

Power Density Calculations at Point # 6
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	127.4	-38.31	1.000	1.000	3100.0	2.317	6.3771	275.270
2	0.0	128.1	-38.66	1.000	1.000	11.800	1.000	0.0240	2.404
Total of Allowed Power Density									277.674

Power Density Calculations at Point # 7
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	143.7	-33.36	1.000	1.000	3100.0	2.317	5.0177	216.591
2	0.0	144.2	-33.69	1.000	1.000	11.800	1.000	0.0190	1.895
Total of Allowed Power Density									218.487

Power Density Calculations at Point # 8
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	160.8	-29.44	1.000	1.000	3100.0	2.317	4.0080	173.007
2	0.0	161.2	-29.74	1.000	1.000	11.800	1.000	0.0152	1.516
Total of Allowed Power Density									174.523

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Power Density Calculations at Point # 9
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	178.4	-26.28	1.000	1.000	3100.0	2.317	3.2527	140.406
2	0.0	178.9	-26.57	1.000	1.000	11.800	1.000	0.0123	1.232
Total of Allowed Power Density									141.638

Power Density Calculations at Point # 10
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	196.6	-23.70	1.000	1.000	3100.0	2.317	2.6803	115.697
2	0.0	197.0	-23.96	1.000	1.000	11.800	1.000	0.0102	1.016
Total of Allowed Power Density									116.714

Power Density Calculations at Point # 11
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	215.0	-21.55	1.000	1.000	3100.0	2.317	2.2398	96.682
2	0.0	215.4	-21.80	1.000	1.000	11.800	1.000	0.0085	0.850
Total of Allowed Power Density									97.531

Power Density Calculations at Point # 12
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	233.8	-19.75	1.000	1.000	3100.0	2.317	1.8955	81.819
2	0.0	234.1	-19.98	1.000	1.000	11.800	1.000	0.0072	0.719
Total of Allowed Power Density									82.538

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Power Density Calculations at Point # 13
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	252.7	-18.22	1.000	1.000	3100.0	2.317	1.6223	70.028
2	0.0	253.0	-18.43	1.000	1.000	11.800	1.000	0.0062	0.616
Total of Allowed Power Density									70.644

Power Density Calculations at Point # 14
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	271.7	-16.90	1.000	1.000	3100.0	2.317	1.4026	60.544
2	0.0	272.0	-17.10	1.000	1.000	11.800	1.000	0.0053	0.533
Total of Allowed Power Density									61.077

Power Density Calculations at Point # 15
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	290.9	-15.76	1.000	1.000	3100.0	2.317	1.2236	52.819
2	0.0	291.2	-15.95	1.000	1.000	11.800	1.000	0.0046	0.465
Total of Allowed Power Density									53.284

Power Density Calculations at Point # 16
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effective Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	310.2	-14.75	1.000	1.000	3100.0	2.317	1.0762	46.453
2	0.0	310.5	-14.93	1.000	1.000	11.800	1.000	0.0041	0.409
Total of Allowed Power Density									46.862

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Power Density Calculations at Point # 17
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	329.6	-13.87	1.000	1.000	3100.0	2.317	0.9533	41.151
2	0.0	329.8	-14.04	1.000	1.000	11.800	1.000	0.0036	0.362
Total of Allowed Power Density									41.513

Power Density Calculations at Point # 18
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	349.1	-13.08	1.000	1.000	3100.0	2.317	0.8500	36.693
2	0.0	349.3	-13.24	1.000	1.000	11.800	1.000	0.0032	0.323
Total of Allowed Power Density									37.016

Power Density Calculations at Point # 19
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	368.6	-12.38	1.000	1.000	3100.0	2.317	0.7624	32.911
2	0.0	368.8	-12.53	1.000	1.000	11.800	1.000	0.0029	0.290
Total of Allowed Power Density									33.201

Power Density Calculations at Point # 20
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	388.1	-11.74	1.000	1.000	3100.0	2.317	0.6875	29.678
2	0.0	388.3	-11.89	1.000	1.000	11.800	1.000	0.0026	0.261
Total of Allowed Power Density									29.939

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Power Density Calculations at Point # 21
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	407.7	-11.17	1.000	1.000	3100.0	2.317	0.6230	26.893
2	0.0	407.9	-11.31	1.000	1.000	11.800	1.000	0.0024	0.237
Total of Allowed Power Density									27.130

Power Density Calculations at Point # 22
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	427.4	-10.65	1.000	1.000	3100.0	2.317	0.5671	24.478
2	0.0	427.6	-10.78	1.000	1.000	11.800	1.000	0.0022	0.216
Total of Allowed Power Density									24.694

Power Density Calculations at Point # 23
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	447.0	-10.18	1.000	1.000	3100.0	2.317	0.5183	22.371
2	0.0	447.2	-10.30	1.000	1.000	11.800	1.000	0.0020	0.197
Total of Allowed Power Density									22.568

Power Density Calculations at Point # 24
=====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	466.7	-9.74	1.000	1.000	3100.0	2.317	0.4754	20.523
2	0.0	466.9	-9.87	1.000	1.000	11.800	1.000	0.0018	0.181
Total of Allowed Power Density									20.703

Table 1
Non Ionizing Radiation Study
Channel 51 UHF
Marianna, FL

Power Density Calculations at Point # 25
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	486.5	-9.35	1.000	1.000	3100.0	2.317	0.4377	18.892
2	0.0	486.6	-9.46	1.000	1.000	11.800	1.000	0.0017	0.166
Total of Allowed Power Density									19.059

Power Density Calculations at Point # 26
 =====

Antenna	Bearing to Point degrees	Slant Dist to Point meters	Dep Ang to Point degrees	Plane		Effec- tive Power Kw	Allowed Power Density mW/cm*cm	Power Density mW/cm*cm	Percent of Allowed
				Relative Field Hor	Vert				
1	0.0	506.2	-8.98	1.000	1.000	3100.0	2.317	0.4042	17.447
2	0.0	506.4	-9.09	1.000	1.000	11.800	1.000	0.0015	0.154
Total of Allowed Power Density									17.601

Table 2
Marianna, FL Channel 51 UHF Television
Television Spacing Study

Job title: Marianna, FL Ch 51
 Channel: 51
 Database file name: FCC

Latitude: 30 47 1
 Longitude: 85 15 18

CH	Call	Record No.	City	ST	Z	STS	Bear.	Dist.	Reqd. Dist.	Result
51-	WOGX	2677	OCALA	FL	3	L	118.6	323.1	280.8	42.3
52-	ALLOTM	3194	ALBANY	GA	3		49.6	136.5	87.7	48.8
51o	ALLOTM	3481	MARIANNA	FL	3		112.9	2.9	280.8	-277.9
51o	NEW	3482	MARIANNA	FL	3	A	216.7	37.7	280.8	-243.1
51o	NEW	3483	MARIANNA	FL	3	A	216.7	37.7	280.8	-243.1
56o	WFSG	3484	PANAMA CITY	FL	3	L	234.3	79.1	31.4	47.7
58o	WAWD	3670	FORT WALTON BEACH	FL	3	C	250.4	127.2	95.7	31.5
58o	WAWD	3671	FORT WALTON BEACH	FL	3	A	250.6	127.5	95.7	31.8

End of channel 51 study

Table 3
Bogner BUH32-H Vertical Pattern Tabulation

Vertical Angle (Degrees from horizontal)	Relative Field	Relative Field (db)	Relative Power	Relative Power (db)	Radiated Power (Kilowatts)
+4	0.100	-20.0	0.010	-20.0	50.0
+3	0.150	-16.5	0.023	-16.5	115.0
+2	0.320	-9.9	0.102	-9.9	510.0
+1	0.200	-14.0	0.040	-14.0	200.0
0	0.870	-1.2	0.757	-1.2	3785.0
-0.5	1.000	0.0	1.000	0.0	5000.0
-1	0.875	-1.2	0.766	-1.2	3830.0
-2	0.330	-9.6	0.109	-9.6	545.0
-3	0.225	-13.0	0.051	-13.0	255.0
-4	0.130	-17.7	0.017	-17.7	85.0
-5	0.125	-18.1	0.016	-18.1	80.0
-6	0.070	-23.1	0.005	-23.1	25.0
-7	0.075	-22.5	0.006	-22.5	30.0
-8	0.060	-24.4	0.004	-24.4	20.0
-9	0.055	-25.2	0.003	-25.2	15.0
-10	0.060	-24.4	0.004	-24.4	20.0

Figure 1

BOGNER[®]
UHF high power antennas
B series, catalog 201

Calculated vertical
plane pattern

Model BU()32N

Power Gain: 32.0 (15.1 dB)

Hor. Gain: 24.2 (13.8 dB)

-1/2° Electrical Beam tilt

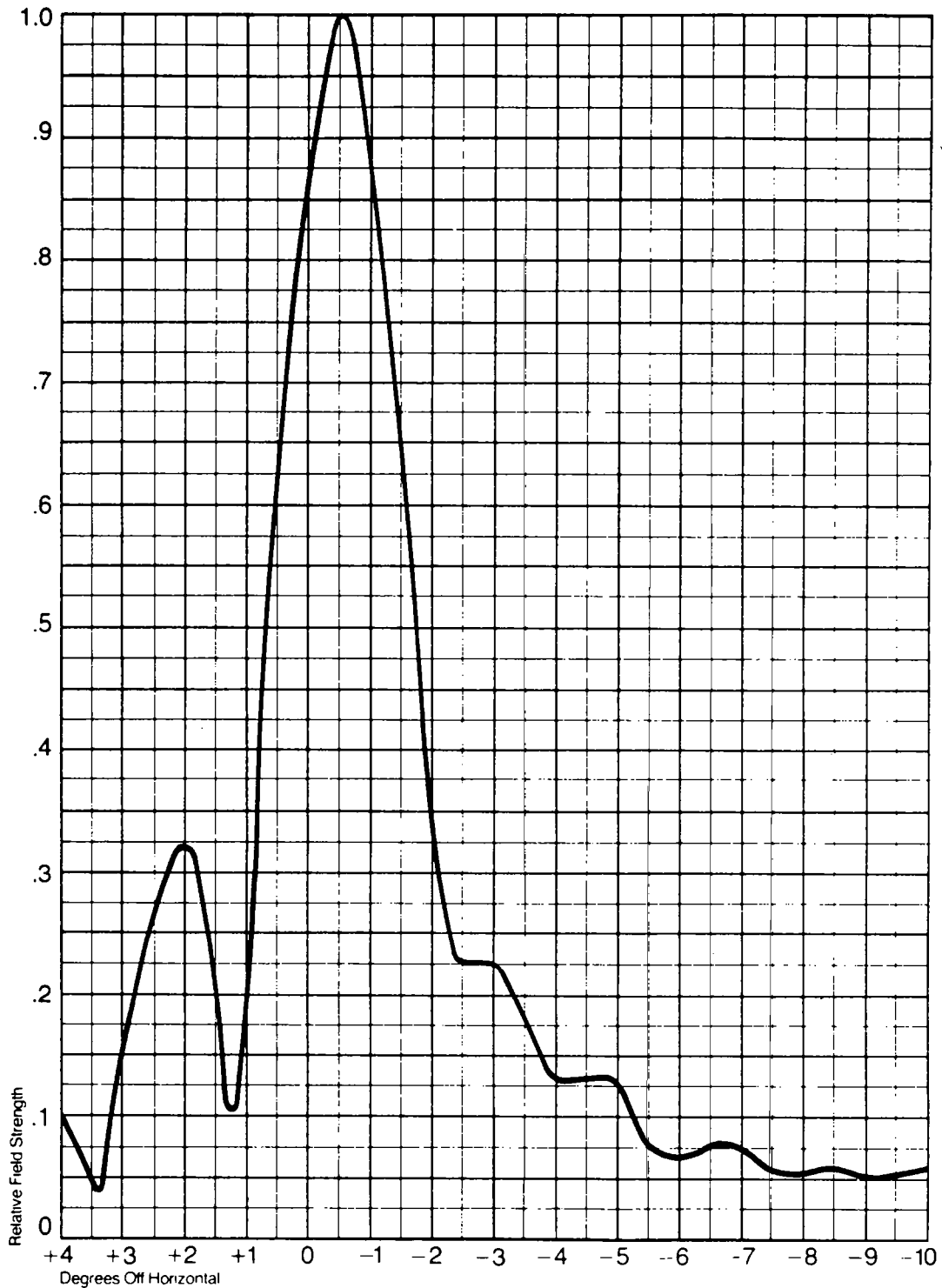


Table 4
Marianna, FL Channel 51 Coverage Contours

DISTANCES TO CONTOURS (Kilometers):

Frequency: Channel 51

Coordinates: N 30 47 1 W 85 15 18

F(50,50) Curves Number of Contours: 2

AZ (degs)	HAAT (m)	ERP (kW)	CONTOUR 74.0	LEVELS (dBu): 64.0
.0	105	5000.0000	50.2	64.5
45.0	101	5000.0000	49.7	63.9
90.0	95	5000.0000	48.9	63.2
135.0	104	5000.0000	50.0	64.3
180.0	98	5000.0000	49.3	63.6
225.0	95	5000.0000	48.8	63.1
270.0	87	5000.0000	47.8	62.1
315.0	99	5000.0000	49.4	63.7
132.1	103	5000.0000	49.9	64.2 (1)

DISTANCES TO CONTOURS (Kilometers):

Frequency: Channel 51

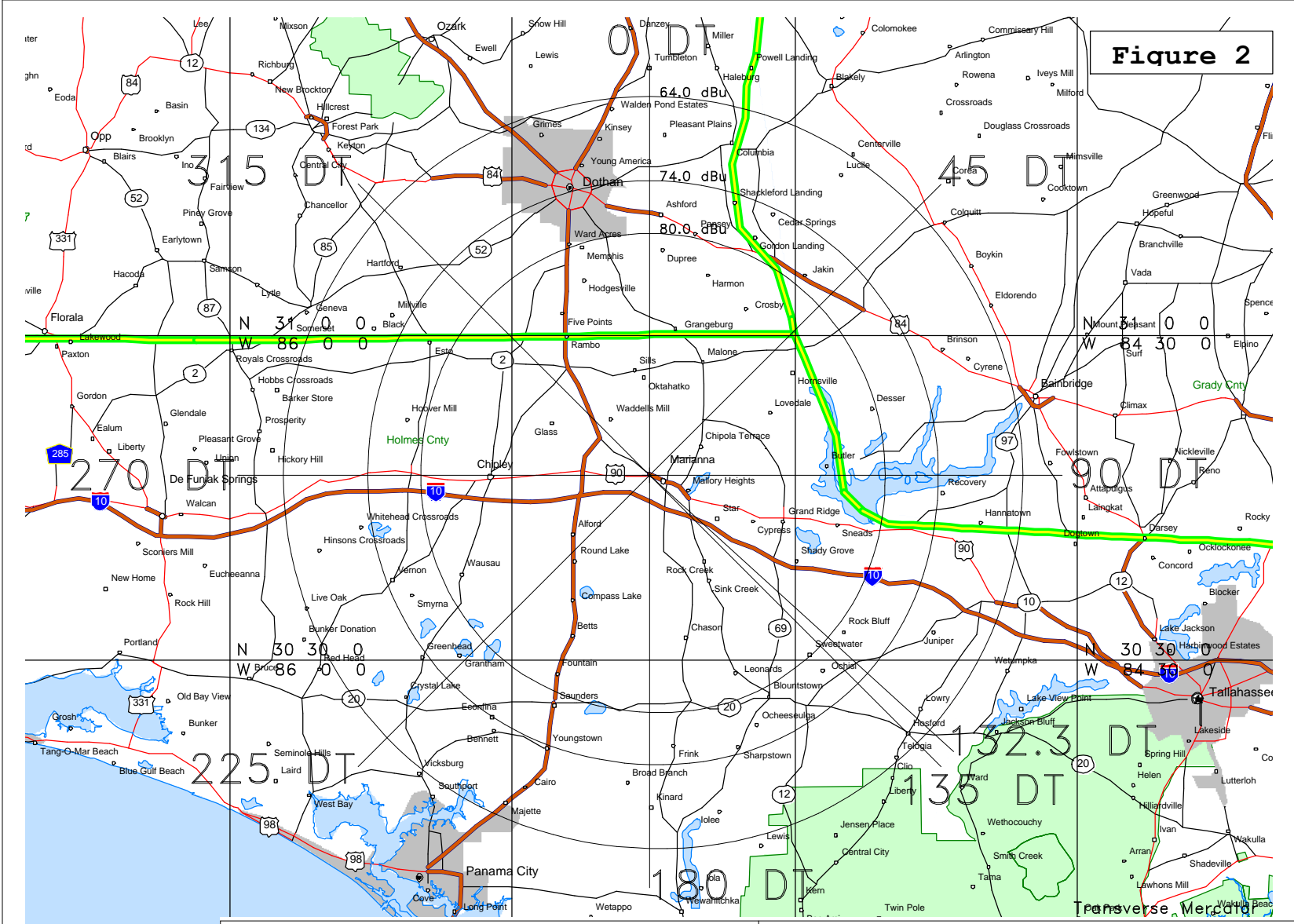
Coordinates: N 30 47 1 W 85 15 18

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERP ² (kW)	CONTOUR 80.0	LEVELS (dBu):
.0	105	4513.0000	41.2	
45.0	101	4513.0000	40.7	
90.0	95	4513.0000	39.9	
135.0	104	4513.0000	41.0	
180.0	98	4513.0000	40.4	
225.0	95	4513.0000	39.9	
270.0	87	4513.0000	38.8	
315.0	99	4513.0000	40.5	
132.1	103	4513.0000	41.0	(1)

1. Radial through City of License
2. Power calculated using depression angle and vertical pattern of TV antenna.

Figure 2

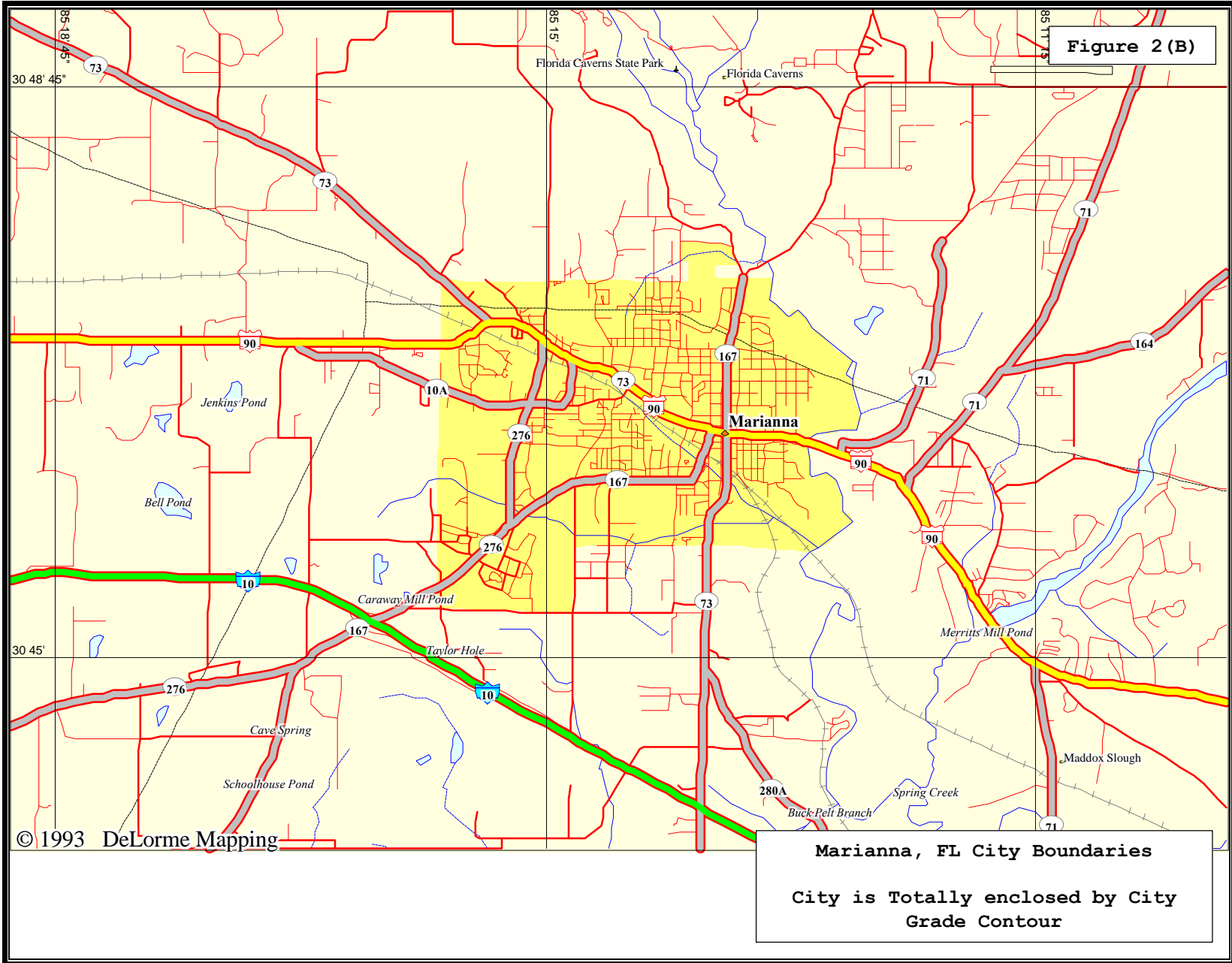


KILOMETERS
 20 0 20 40 60

Reference Coordinates
 30-41-31 North Latitude
 85-15-18 West Longitude

Channel 51
 Marianna, FL
 September 16, 1996

Figure 2 (B)



© 1993 DeLorme Mapping

Marianna, FL City Boundaries
City is Totally enclosed by City
Grade Contour

Figure 3

Vertical Tower Plan

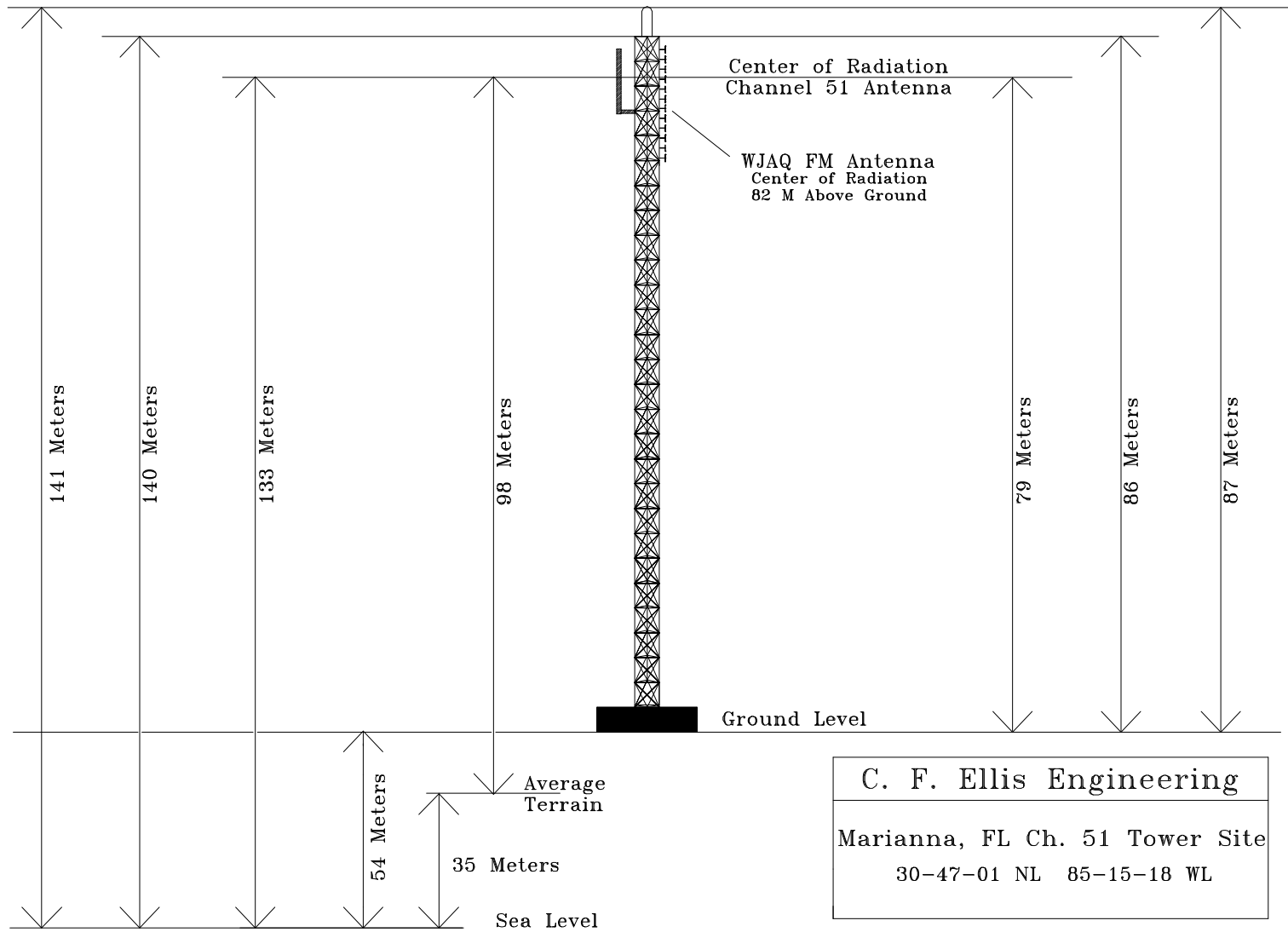


Table 5
Marianna, FL Site Survey

Site survey program within 10.0 km

Title: Marianna, FL Channel 51

Coordinates: 30-47-01 85-15-18

The nearest FCC monitoring station is 345 km distant at Powder Springs, GA

This site is 1279 km distant from the US/Mexican border.

This site is 1233 km distant from the US/Canadian border.

PL - Place Name
AM - AM Radio Station
FM - FM Radio Station
TV - TV Station
TW - Tower
HP - Heliport Pad
AP - Airport

Call Type sign	Chan	Auth	Height (m)	Power (kW)	City	Bear. State (deg)	Dist. (km)
PL					School No 2	FL 170.7	.97
PL					Carol Plaza	FL 101.0	.97
PL					Saint Mark Church	FL 27.5	1.15
PL					Lafayette Plaza	FL 102.0	1.20
PL					Union Hill Church	FL 42.5	1.26
AM WTOT	980	LIC	85	1	MARIANNA	FL 270.0	.00
AM WTYS	1340	LIC	56	1	MARIANNA	FL 134.2	3.18
FM WJAQ	265	LIC	101	5.90	MARIANNA	FL 270.0	.00
FM WJAQ	265	APP	96	23.5	MARIANNA	FL 282.8	.14
FM W291AD	291	LIC	90	.04	MARIANNA	FL 81.9	1.32
FM WJNF	216	LIC	47	.38	MARIANNA	FL 68.5	6.00
TV ALLOC	16				MARIANNA	FL 112.9	2.94
TV ALLOC	51				MARIANNA	FL 112.9	2.94
TV ATV-PRM	66				MARIANNA	FL 112.9	2.94

Table 5
Marianna, FL Site Survey

Type	Name/ Location	HtAGL (m)	HtAMSL (m)	City	State	Bear. (deg)	Dist. (km)
TW		87	141	MARIANNA	FL	270.0	.00
TW	904 WEST LAFAYETTE S	97	134	MARIANNA	FL	244.3	.36
TW	ON HWY 90	76	128	MARIANNA	FL	130.5	.38
TW	4012 LAFAYETTE ST	122	160	MARIANNA	FL	286.2	.67
TW	MILTON AVE	46	84	MARIANNA	FL	111.9	.83
TW		79	139	MARIANNA	FL	256.2	1.04
TW	1.0 MI WEST OF	90	136	MARIANNA	FL	251.0	1.04
TW	800 SECOND AVE	94	126	MARIANNA	FL	81.9	1.32
TW	1900' NE OF INT. HWY	110	152	MARIANNA	FL	166.5	1.81
TW		60	94	MARIANNA	FL	145.9	2.27
TW	N. SIDE HWY 90, 1M W	90	139	MARIANNA CITY	FL	273.1	2.32
TW		127	182	MARIANNA	FL	260.0	2.32
TW	HWY 90 1 1/2 M W OF	82	140	MARIANNA	FL	276.2	2.60
TW	1 CLARKSVILLE HWY, R	128	156	MARIANNA	FL	135.0	3.23
TW	2.1MLS WEST	113	168	MARIANNA	FL	241.2	3.40
TW	1.2 M S HW90, 2 M W H	152	207	MARIANNA	FL	239.4	3.58
TW	3.0 MILES WEST OF	62	111	MARIANNA	FL	271.9	3.70
TW	HWY. 90 W., 4 MI W.	91	140	MARIANNA	FL	270.0	3.83
TW		32	78	MARIANNA	FL	73.0	4.56
TW		51	136	MARIANNA	FL	93.9	4.58
TW	HATTON ST, .5MLS NORT	48	89	MARIANNA	FL	99.7	5.15
TW	LOB LOLLY LANE	125	164	MARIANA	FL	161.7	5.39
TW	401 PELT ST.	127	167	MARIANNA	FL	104.2	5.81
TW	OLD US ROAD	40	80	MARIANNA	FL	68.5	6.00
TW	401 PELT ST	82	118	MARIANNA	FL	105.9	6.30
TW	2.5 MI S OF	126	154	OAKDALE	FL	165.3	7.51
TW		67	99	MARIANNA	FL	130.0	8.80
TW	HWY 71 N	45	80	MARMIANNA	FL	56.2	9.17
HP	JACKSON COUNTY HOSPI		145	MARIANNA	FL	74.7	1.40
AP	AERO-CUSTOM		260	DE FUNIAK SPRINGS	FL	339.7	7.26
AP	MARIANNA MUNI		113	MARIANNA	FL	49.7	8.93

End

**AFFIDAVIT AND QUALIFICATIONS OF
C. F. ELLIS**

Charles F. Ellis affirms that he is a consulting radio and electronics engineer; that he is a professional engineer registered in the State of Louisiana; that the foregoing report was prepared by him or under his direction; and that the statements contained therein are true to his own personal knowledge except those stated to be on information and belief, and as to those statements, he verily believes them to be true.

C. F. Ellis, P.E.
Affiant
September 16, 1996

SECTION V-C - TV BROADCAST ENGINEERING DATA

FOR COMMISSION USE ONLY

File No. _____

SSB Referral Date _____

Referred By _____

Name of Applicant

Media Properties, LP

Call Letters (if issued)

N/A

Purpose of Application: (check appropriate boxes)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Construct a new (main) facility | <input type="checkbox"/> Construct a new auxiliary facility |
| <input type="checkbox"/> Modify existing construction permit for main facility | <input type="checkbox"/> Modify existing construction permit for auxiliary facility |
| <input type="checkbox"/> Modify licensed main facility | <input type="checkbox"/> Modify licensed auxiliary facility |

If purpose is to modify, indicate the nature of change(s) by checking appropriate box(es) and specify the file number(s) of the authorizations affected. **N/A**

- | | |
|---|---|
| <input type="checkbox"/> Antenna supporting structure height | <input type="checkbox"/> Effective radiated power |
| <input type="checkbox"/> Antenna height above average terrain | <input type="checkbox"/> Frequency |
| <input type="checkbox"/> Antenna location | <input type="checkbox"/> Antenna system |
| <input type="checkbox"/> Main Studio location | <input type="checkbox"/> Other (summarize) |

File Number(s) _____

1. Allocation:

Channel No.	Offset (check one)	Principal community to be served:	Zone (check one)						
51	<input type="checkbox"/> Plus	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">County</td> <td style="width: 33%;">City or Town</td> <td style="width: 33%;">State</td> </tr> <tr> <td style="text-align: center;">Jackson</td> <td style="text-align: center;">Marianna</td> <td style="text-align: center;">FL</td> </tr> </table>	County	City or Town	State	Jackson	Marianna	FL	<input type="checkbox"/> I
	County		City or Town	State					
	Jackson		Marianna	FL					
<input type="checkbox"/> Minus	<input type="checkbox"/> II								
	<input checked="" type="checkbox"/> Zero		<input checked="" type="checkbox"/> III						

2. Exact location of antenna.

- (a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark. **WJAQ FM Tower Site (2.8 Km 312.3 DT from Marianna, FL)**
- (b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude and East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed. (The Commission requires coordinates based on NAD 27.)

Latitude	30 °	47 ' 01 "	Longitude	85 °	15 ' 18 "
----------	------	-----------	-----------	------	-----------

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? Yes No

If Yes, give call letter(s) or file number(s) or both. **WJAQ (FM) File # BMLH941123KG**

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

N/A

Section V-B - TV BROADCAST ENGINEERING DATA (Page 2)

4. Does the application propose to correct previous site coordinates?
If Yes, list old coordinates.

Yes No

Latitude ° ' "	Longitude ° ' "
---	--

5. Has the FAA been notified of the proposed construction?

Yes No

If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. (No change in tower height)

Exhibit No.

Date _____ Office where filed _____

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	<u>Please See Table 5 in Engineering Statement</u>		
(b)	_____		

7. (a) Elevation (to the nearest meter)

- (1) of site above mean sea level; _____ **54** meters
- (2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and _____ **87** meters
- (3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)]. _____ **141** meters

(b) Height of antenna radiation center: (to the nearest meter)

- (1) above ground; _____ **79** meters
- (2) above mean sea level [(a)(1) + (b)(1)]; and _____ **133** meters
- (3) above average terrain. _____ **00** meters

8. Attach as an Exhibit sketch(es) of the supporting structure, labeling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional array element, specify heights and orientations of all array towers, as well as location of FM radiator.

Exhibit No. **Eng.**

9. Maximum visual effective radiated power: 5000 kw

Section V-C - TV BROADCAST ENGINEERING DATA (Page 3)

10. Antenna

(a) Manufacturer Bogner (b) Model No. BUH320-H

(c) Is a directional antenna proposed? Yes No

If Yes, specify major lobe azimuth(s) _____ degrees True and attach as an Exhibit all data specified in 47 C.F.R. Section 73.685. **N/A**

Exhibit No.

(d) Is electrical beam tilt proposed? Yes No

If Yes, specify 0.5 degrees electrical beam tilt and attach as an Exhibit all data specified in 47 C.F.R. Section 73.685.

Exhibit No. **Eng.**

(e) Is mechanical beam tilt proposed? Yes No

If Yes, specify _____ degrees mechanical beam tilt toward azimuth _____ degrees True and attach as an Exhibit all data specified in 47 C.F.R. Section 73.685. **N/A**

Exhibit No.

(f) The proposed antenna is: (check only one box)

Horizontally polarized Circularly polarized Elliptically polarized

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.685(a) and (b)? Yes No

If No, attach as an Exhibit justification therefor, including amounts and percentages of population and area that will not receive City Grade service.

Exhibit No. **N/A**

12. Will the main studio be located within the station's predicted principal community contour as defined by 47 C.F.R. Section 73.685(a)? Yes No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. **N/A**

Exhibit No.

13. Does the proposed facility satisfy the requirement of 47 C.F.R. Section 73.610? Yes No

If No, attach as an Exhibit justification therefor, including a summary of any previously granted waivers. **N/A See Table 2**

Exhibit No.

14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters; or (b) in the general vicinity, any nonbroadcast (except citizens band or amateur) radio stations or any established commercial or government receiving stations? Yes No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by intermodulation) to facilities in existence or authorized prior to grant of this application. (See 47 C.F.R. Sections 73.685(d) and (g).)

Exhibit No. **Eng.**

15. Attach as an Exhibit a topographic map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the provisions of 47 C.F.R. Section 73.684(g). The map must further display clearly and legibly the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No. **Eng.**

Section V-C - TV BROADCAST ENGINEERING DATA (Page 4)

16. Attach as an Exhibit a map (Sectional Aeronautical Chart or equivalent) which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.
Eng.

- (a) the proposed transmitter location, and the radials along which profile graphs have been prepared;
- (b) the City Grade, Grade A and Grade B contours; and
- (c) the legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted Grade B contour.

Area 12,674 sq. km. Population 227,621

18. For an application involving an auxiliary facility only, attach as an Exhibit a map (Sectional Aeronautical Chart or equivalent) that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers: **N/A**

Exhibit No.

- (a) the proposed auxiliary Grade B contour; and
- (b) the Grade B contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

(Main facility license file number: _____)

19. Terrain and coverage data (to be calculated in accordance with 47 C.F.R. Section 73.684)

Source of terrain data: (check only one box below)

Linearly interpolated 30-second database (Source: _____)

7.5 minute topographic map

Other (briefly summarize) **USGS 3 arc-sec Terrain Data**

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances		
		To the City Grade Contour (kilometers)	To the Grade A contour (kilometers)	To the Grade B contour (kilometers)
*132.1	103	41.0	49.9	64.2
0	105	41.2	50.2	64.5
45	101	40.7	49.7	63.9
90	95	39.9	48.9	63.2
135	104	41.0	50.0	64.3
180	98	40.4	49.3	63.6
225	95	39.9	48.8	63.1
270	87	38.8	47.8	62.1
315	99	40.5	49.4	63.7

*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

Section V-C - TV BROADCAST ENGINEERING DATA (Page 5)

20. Environmental Statement. (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within 47 C.F.R. Section 1.1307, such that it may have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding identified health and safety guidelines issued by the American National Standards Institute?

Yes No

Exhibit No.

If you answer Yes, submit as an Exhibit an Environmental Assessment required by 47 C.F.R. Section 1.1311.

If no, explain briefly why not.

Please See Engineering Statement

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name (Typed or Printed) Charles F. Ellis	Relationship to Applicant (e.g., Consulting Engineer) Consulting Engineer
Signature	Address (include ZIP Code) 1103 LaNeuville, Lafayette, LA 70508
Date September 16, 1996	Telephone No. (include Area Code) (318) 289-0294