

Exhibit 29 - Statement B  
**ENVIRONMENTAL CONSIDERATIONS**  
prepared for  
**WMAL, Inc.**  
WRQX(FM) Washington, D.C.  
Facility ID 73252  
Ch. 297B 19.5 kW 246.2 m

The instant proposal is not believed to have a significant environmental impact as defined under Section 1.1306 of the Commission's Rules. Consequently, preparation of an Environmental Assessment is not required.

**Nature of The Proposal**

*WMAL, Inc.* ("WMAL") is the licensee of WRQX(FM). *WMAL* herein proposes a modification to WRQX to specify a new main antenna located at the current WRQX transmitter site.

The proposed facility will be located on the same, existing tower as the currently authorized WRQX facility. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. The antenna supporting structure has FAA approval and is registered with the FCC (ASR number 1051670). Since no change in overall structure height is proposed, no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's Rules.

**Human Exposure to Radiofrequency Radiation**

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 ("OET 65"). OET 65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

Exhibit 29 - Statement B  
(Page 2 of 3)

The proposed WRQX(FM) antenna will have a center of radiation 194.6 meters above ground level. An ERP of 19.5 kilowatts, horizontally and vertically polarized, will be employed. Based on information provided by the antenna manufacturer, the proposed WRQX(FM) antenna has a maximum vertical plane relative field value (see **Exhibit 29 – Figure 1** and **Exhibit 29 – Table 1**) less than 50 percent or less between 30° and 90° below the horizontal plane (i.e., below the antenna). Thus, a value of 50 percent relative field is used for this calculation. The “uncontrolled/general population” limit specified in §1.1310 for Channel 297 (107.3 MHz) is 200  $\mu\text{W}/\text{cm}^2$ .

The formula used for calculating FM signal density in this analysis is essentially the same as equation (9) in OET-65.

$$S = (33.4098) (F^2) (ERP) / D^2$$

Where:

<i>S</i>	=	power density in microwatts/cm <sup>2</sup>
<i>ERP</i>	=	total ERP (H + V) in Watts
<i>F</i>	=	relative field factor
<i>D</i>	=	distance in meters

Using this formula, the proposed facility would contribute a power density of 8.8  $\mu\text{W}/\text{cm}^2$  at two meters above ground level near the antenna support structure, or 4.4 percent of the general population/uncontrolled limit. At ground level locations away from the base of the tower, the calculated RF power density is even lower, due to the increasing distance from the transmitting antenna.

§1.1307(b)(3) states that facilities contributing less than five percent of the exposure limit at locations with multiple transmitters (such as the case at hand) are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of the any other facilities using this site or at a nearby sites may be

Exhibit 29 - Statement B  
(Page 3 of 3)

considered independently from this proposal. Accordingly, it is believed that the impact of the proposed operation should not be considered to be a factor at or near ground level as defined under §1.1307(b).

**Safety of Tower Workers and the General Public**

As demonstrated herein, excessive levels of RF energy will not be caused at publicly accessible areas at ground level near the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, tower access will continue to be restricted and controlled through the use of a locked fence. Additionally, appropriate RF exposure warning signs will continue to be posted.

With respect to worker safety, it is believed that based on the preceding analysis, excessive exposure would not occur in areas at ground level. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent site users.

**Conclusion**

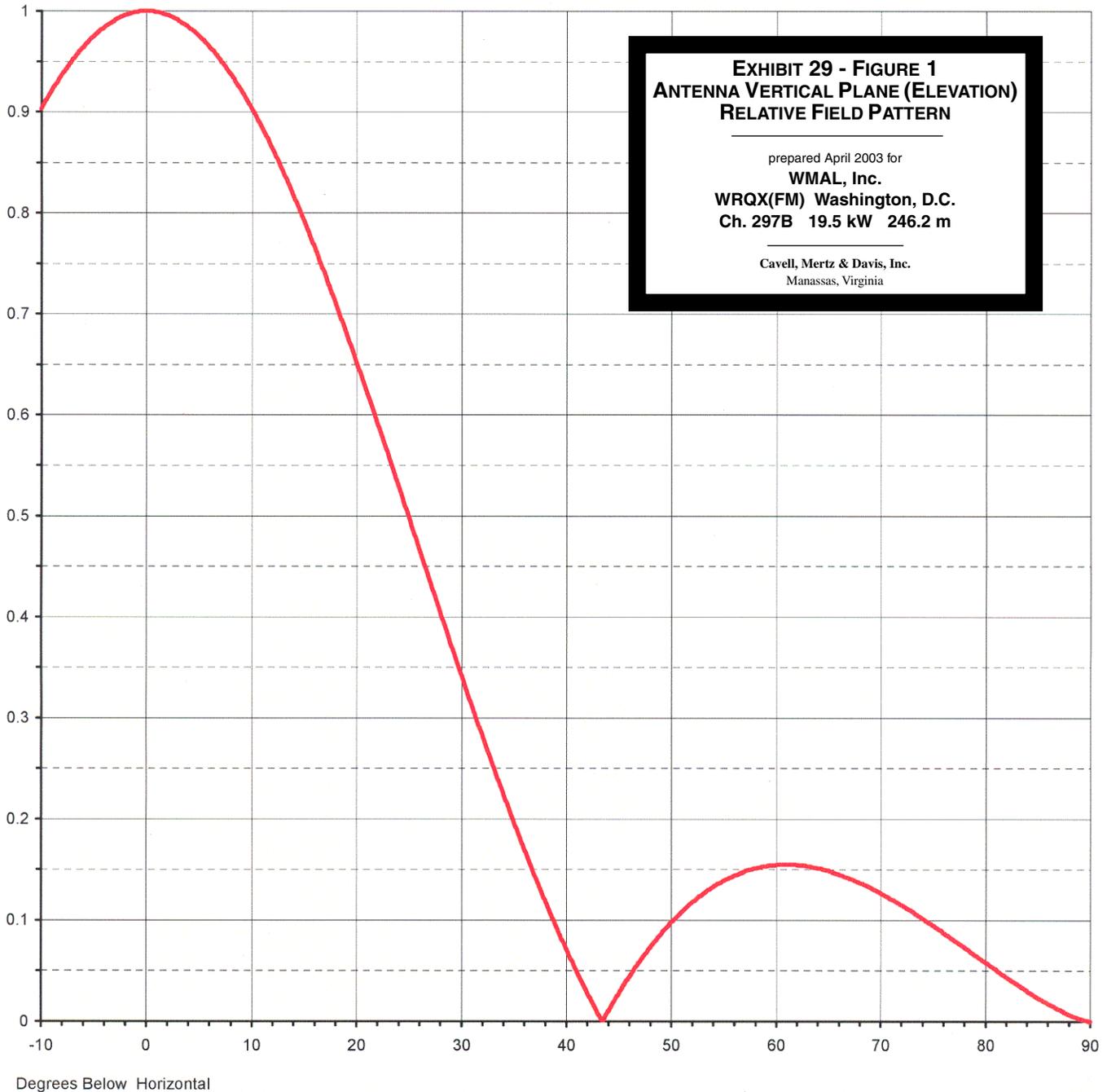
Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.



Proposal Number **DCA-9511** Revision: **6**  
Date **17-Apr-02**  
Call Letters **WRQX**  
Location **WASHINGTON, DC**  
Customer  
Antenna Type **DCBR-O3-2FM/6U-1**

### ELEVATION PATTERN

RMS Gain at Main Lobe	<b>0.90</b>	<b>-( 0.46 dB )</b>	Beam Tilt	<b>0.00 deg</b>
RMS Gain at Horizontal	<b>0.90</b>	<b>-( 0.46 dB )</b>	Frequency	<b>107.30 MHz</b>
Calculated / Measured	<b>Calculated</b>		Drawing #	<b>02C009000-S107-90</b>



**EXHIBIT 29 - FIGURE 1**  
**ANTENNA VERTICAL PLANE (ELEVATION)**  
**RELATIVE FIELD PATTERN**

prepared April 2003 for  
**WMAL, Inc.**  
**WRQX(FM) Washington, D.C.**  
**Ch. 297B 19.5 kW 246.2 m**

Cavell, Mertz & Davis, Inc.  
Manassas, Virginia

**EXHIBIT 29 - TABLE 1**

Proposal Number **DCA-9511**      Revision: **6**  
 Date **17-Apr-02**  
 Call Letters **WRQX**  
 Location **WASHINGTON, DC**  
 Customer  
 Antenna Type **DCBR-O3-2FM/6U-1**

**TABULATION OF ELEVATION PATTERN**Elevation Pattern Drawing #: **02C009000-S107-90**

Angle	Field										
-10.0	0.903	2.4	0.994	10.6	0.894	30.5	0.329	51.0	0.107	71.5	0.118
-9.5	0.912	2.6	0.993	10.8	0.890	31.0	0.314	51.5	0.112	72.0	0.115
-9.0	0.921	2.8	0.992	11.0	0.886	31.5	0.299	52.0	0.117	72.5	0.111
-8.5	0.929	3.0	0.991	11.5	0.876	32.0	0.285	52.5	0.121	73.0	0.108
-8.0	0.937	3.2	0.990	12.0	0.865	32.5	0.270	53.0	0.125	73.5	0.105
-7.5	0.945	3.4	0.988	12.5	0.854	33.0	0.255	53.5	0.129	74.0	0.101
-7.0	0.952	3.6	0.987	13.0	0.843	33.5	0.241	54.0	0.132	74.5	0.098
-6.5	0.958	3.8	0.986	13.5	0.831	34.0	0.227	54.5	0.136	75.0	0.095
-6.0	0.964	4.0	0.984	14.0	0.819	34.5	0.213	55.0	0.139	75.5	0.091
-5.5	0.970	4.2	0.982	14.5	0.807	35.0	0.199	55.5	0.141	76.0	0.087
-5.0	0.975	4.4	0.981	15.0	0.795	35.5	0.185	56.0	0.144	76.5	0.084
-4.5	0.980	4.6	0.979	15.5	0.782	36.0	0.172	56.5	0.146	77.0	0.080
-4.0	0.984	4.8	0.977	16.0	0.769	36.5	0.159	57.0	0.148	77.5	0.076
-3.5	0.988	5.0	0.975	16.5	0.755	37.0	0.146	57.5	0.150	78.0	0.073
-3.0	0.991	5.2	0.973	17.0	0.742	37.5	0.133	58.0	0.151	78.5	0.069
-2.8	0.992	5.4	0.971	17.5	0.728	38.0	0.121	58.5	0.152	79.0	0.065
-2.6	0.993	5.6	0.969	18.0	0.714	38.5	0.108	59.0	0.153	79.5	0.062
-2.4	0.994	5.8	0.967	18.5	0.699	39.0	0.096	59.5	0.154	80.0	0.058
-2.2	0.995	6.0	0.964	19.0	0.685	39.5	0.085	60.0	0.154	80.5	0.054
-2.0	0.996	6.2	0.962	19.5	0.670	40.0	0.073	60.5	0.155	81.0	0.051
-1.8	0.997	6.4	0.960	20.0	0.655	40.5	0.062	61.0	0.155	81.5	0.047
-1.6	0.997	6.6	0.957	20.5	0.640	41.0	0.051	61.5	0.155	82.0	0.044
-1.4	0.998	6.8	0.954	21.0	0.625	41.5	0.040	62.0	0.155	82.5	0.040
-1.2	0.999	7.0	0.952	21.5	0.610	42.0	0.030	62.5	0.154	83.0	0.037
-1.0	0.999	7.2	0.949	22.0	0.595	42.5	0.020	63.0	0.153	83.5	0.033
-0.8	0.999	7.4	0.946	22.5	0.579	43.0	0.010	63.5	0.152	84.0	0.030
-0.6	1.000	7.6	0.943	23.0	0.564	43.5	0.001	64.0	0.151	84.5	0.027
-0.4	1.000	7.8	0.940	23.5	0.548	44.0	0.009	64.5	0.150	85.0	0.023
-0.2	1.000	8.0	0.937	24.0	0.532	44.5	0.018	65.0	0.149	85.5	0.020
0.0	1.000	8.2	0.934	24.5	0.517	45.0	0.026	65.5	0.147	86.0	0.017
0.2	1.000	8.4	0.931	25.0	0.501	45.5	0.035	66.0	0.145	86.5	0.015
0.4	1.000	8.6	0.928	25.5	0.485	46.0	0.043	66.5	0.143	87.0	0.012
0.6	1.000	8.8	0.925	26.0	0.469	46.5	0.050	67.0	0.141	87.5	0.009
0.8	0.999	9.0	0.921	26.5	0.454	47.0	0.058	67.5	0.139	88.0	0.007
1.0	0.999	9.2	0.918	27.0	0.438	47.5	0.065	68.0	0.137	88.5	0.005
1.2	0.999	9.4	0.914	27.5	0.422	48.0	0.072	68.5	0.135	89.0	0.003
1.4	0.998	9.6	0.911	28.0	0.407	48.5	0.079	69.0	0.132	89.5	0.001
1.6	0.997	9.8	0.909	28.5	0.391	49.0	0.085	69.5	0.129	90.0	0.000
1.8	0.997	10.0	0.905	29.0	0.375	49.5	0.091	70.0	0.127		
2.0	0.996	10.2	0.901	29.5	0.360	50.0	0.097	70.5	0.124		
2.2	0.995	10.4	0.898	30.0	0.345	50.5	0.102	71.0	0.121		