



2355 Ranch Drive, Westminster, CO 80234  
Phone: 303-465-5742 ~ Fax: 303-465-4067  
E-Mail: stcl@comcast.net

**B. W. St. Clair**

---

**Engineering Statement In Support  
Of the Application Of  
KSYS-DT To Match The  
Parameters of Appendix B**

This application proposes to change the analog channel 8 licensed operation of digital TV with the same antenna. It matches the parameters assigned in appendix B<sup>1</sup>. As it matches the assigned parameters no interference analysis was performed.

**Non-Ionizing Radiation**

A calculation of the non-ionizing radiation in the vicinity of the antenna proves that the level at head height is less than 5% of the allowable public limit. This calculation following OET Bul 65 guidelines is based on the following parameters.

Antenna center above ground: 39 meters  
Antenna center above head height: 37 meters  
Digital ERP: 16.9kW  
Relative voltage of vertical pattern: less than 0.1

Result is  $S=4.12\mu\text{w}/\text{cm}^2$   
Allowable level  $200\mu\text{w}/\text{cm}^2$   
Percent of allowable: 2.06

No special precautions are required. Applicant recognizes that a power reduction may be required if an above groundwork is to be performed on the tower or in the immediate vicinity.

The contents of this "Engineering Statement" are based on the engineering information in the application and are true and correct to the best of my knowledge and belief.

Respectfully submitted,

B. W. St. Clair  
Engineering Consultant  
February 14, 2008

---

<sup>1</sup> Appendix B of the Seventh Report and Order in the Matter of Advanced Television Systems, MB Docket No. 87-268, FCC 07-138.

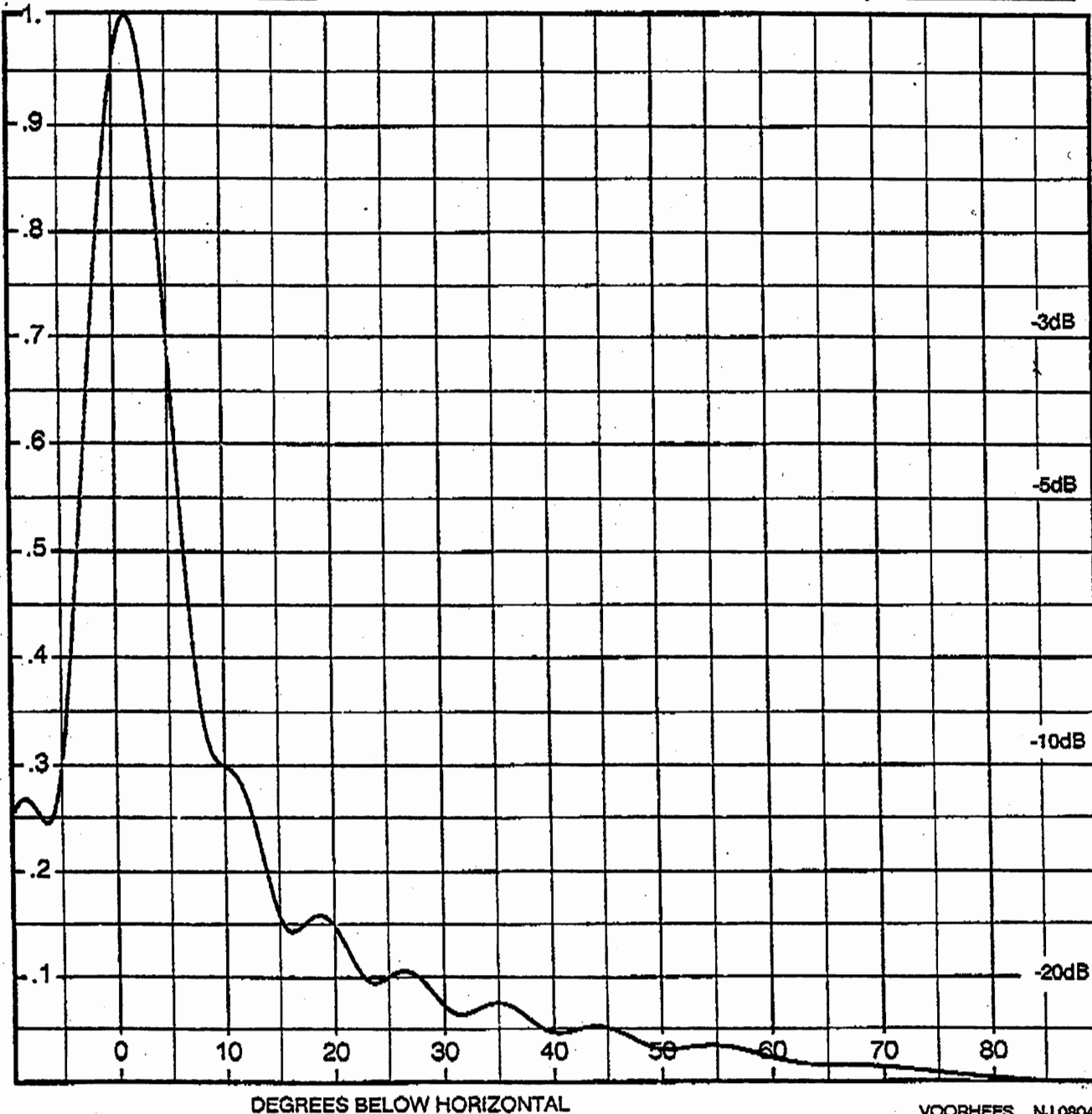
# EXHIBIT E-2C

## DIELECTRIC COMMUNICATIONS ANTENNAS A UNIT OF GENERAL SIGNAL

Proposal Number: DCA-6531 Revision: \_\_\_\_\_ Date: Feb. 12, 92  
 Call Letters: KSYS-TV Channel: 8 Antenna Type: TW-7B8-R  
 Location: MEDFORD, OREGON Customer: \_\_\_\_\_

### VERTICAL PATTERN

RMS Gain at Main Lobe: 7.0 8.45 dB Beam Tilt: 1.0 degrees Frequency: 183 MHz  
 RMS Gain at Horizontal: 6.7 8.26 dB Calculated: X Measured: \_\_\_\_\_ Drawing #: TW070100-90



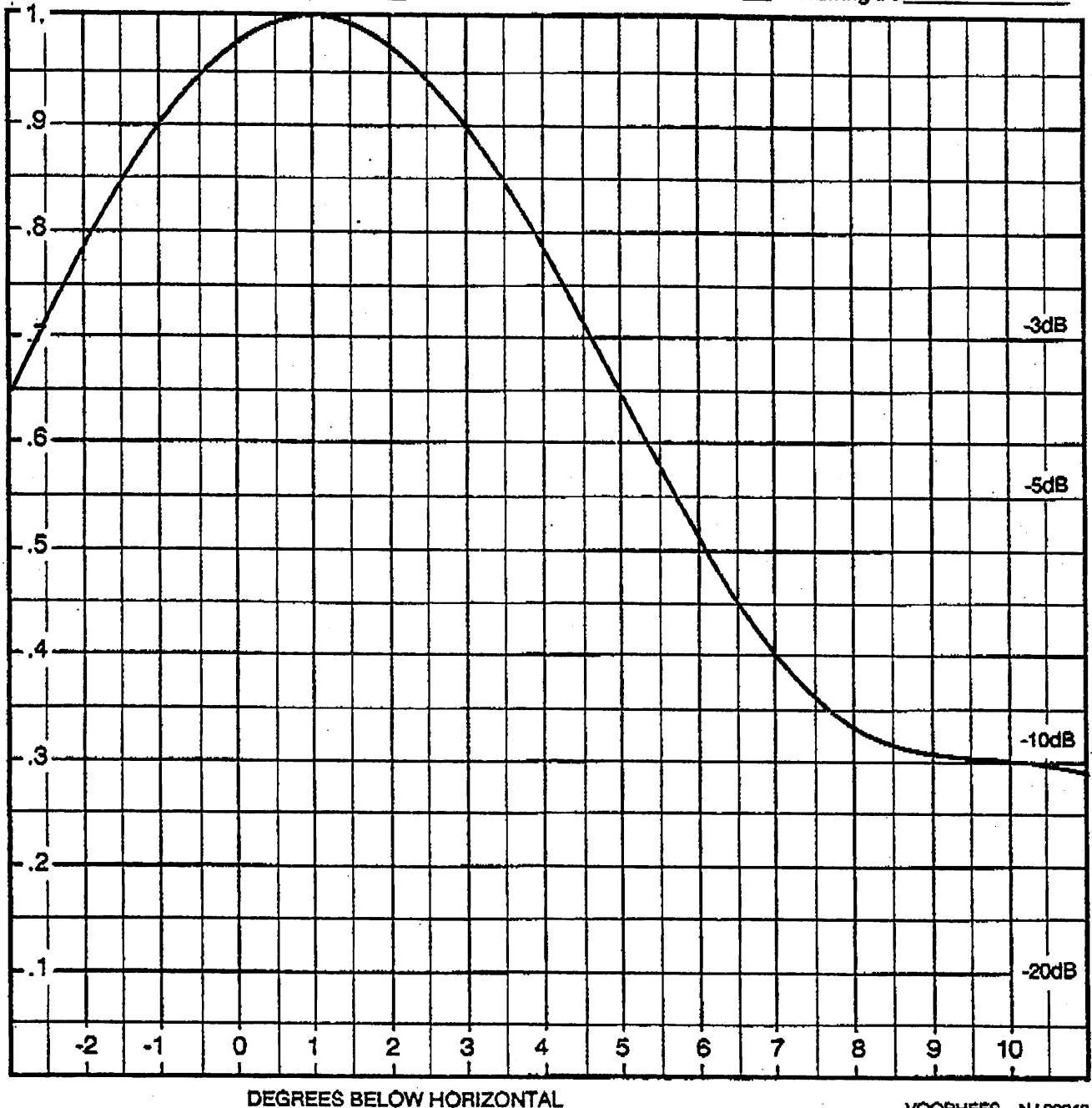
VOORHEES, NJ 08043  
 Tel.: 609-435-3200  
 FAX: 609-435-3204

**EXHIBIT E-2B**  
**DIELECTRIC COMMUNICATIONS ANTENNAS**  
A UNIT OF GENERAL SIGNAL

Proposal Number: DCA-6531 Revision: \_\_\_\_\_ Date: Feb. 12, 92  
Call Letters: KSYS-TV Channel: 8 Antenna Type: TW-7BS-R  
Location: MEDFORD, OREGON Customer: \_\_\_\_\_

**VERTICAL PATTERN**

RMS Gain at Main Lobe: 7.0 8.45 dB Beam Tilt: 1.0 degrees Frequency: 183 MHz  
RMS Gain at Horizontal: 6.7 8.26 dB Calculated: X Measured: \_\_\_\_\_ Drawing #: TW070100



VOORHEES, NJ 08043  
Tel: 609-435-3200  
FAX: 609-435-3204

KSYS-DT

Latitude: 42-41-32 N

Longitude: 123-13-45 W

ERP: 16.90 kW

Channel: 8

Frequency: 183.0 MHz

AMSL Height: 1643.0 m

Elevation: 1570.555 m

Horiz. Pattern: Omni

Vert. Pattern: Yes

Elec Tilt: 1.0

**KSYS-DT, Medford, OR Application**

Coverage Over Principal Community

Channel 08 43 dBμ F50/90

43 dBμ

**Principal Community**

02/14/2008

Scale 1:1,750,000

0 20 40 60 km

**B. W. St. Clair Engineering Consultant**

2355 Ranch Drive, Westminster, CO 80234

303-465-5742 FAX-4067 stcl@comcast.net

