

Exhibit 41 - Statement A  
**PROPOSED ANTENNA SYSTEM**  
**ALLOCATION CONSIDERATIONS**

prepared for  
**Gray Television Licensee, Inc.**  
WBKO-DT Bowling Green, Kentucky  
Facility ID 4692  
Ch. 33 490 kW 203 m

*Gray Television Licensee, Inc.* (“Gray”) is the permittee of WBKO-DT, Channel 33, Bowling Green, Kentucky (BPCDT-19991028ADU) and licensee of the paired analog WBKO(TV) Channel 13 facility (BLCT-20040818ABR). Under its Construction Permit (“CP”), WBKO-DT is authorized to operate with an effective radiated power (“ERP”) of 905 kW at an antenna height above average terrain (“HAAT”) of 226 meters. WBKO-DT is currently operating under Special Temporary Authorization (“STA”) at a reduced power level of 65.6 kW and a HAAT of 207 m (BDSTA-20021023ABW).

The instant application proposes to modify the CP to specify operation of WBKO-DT with a directional antenna operating with a maximum ERP of 490 kW and a slight decrease in height. The proposed antenna HAAT is calculated to be 203 meters.

All WBKO-DT facilities described herein specify the same transmitting location. No change in site location is proposed.<sup>1</sup> The existing WBKO-DT antenna supporting structure is associated with FCC Antenna Structure Registration number 1048806. No change to the overall structure height is proposed as a result of this proposal.

The specified antenna system is an ERI model ALP32M3-HSM-33. The antenna’s horizontal plane pattern, expressed in terms of relative field and power, is supplied in **Exhibit 41 - Figure 1**, properly oriented relative to True North. **Exhibit 41 - Figures 2 and 2A** graphically present the theoretical vertical plane (elevation) pattern.

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<sup>1</sup>The site coordinates as reported in the ASR record differ from the FCC licensing records for this facility by 3 seconds in latitude. Accordingly, the coordinates in the instant application reflect the data in the ASR record.

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A map is supplied as **Exhibit 41 - Figure 3**, which depicts the standard predicted coverage contours. This map includes the boundaries of Bowling Green, WBKO-DT's principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 48 dBu contour.

The map attached as **Exhibit 41 - Figure 4** supplies a comparison of the presently authorized and proposed 41 dBu noise-limited DTV service contour locations. No extension in contour location will result, in compliance with the Commission's August 3, 2004 "freeze" concerning expansion in service area.<sup>2</sup>

WBKO-DT has successfully received a tentative post-transition channel assignment corresponding to the present WBKO(TV) Channel 13, and will "carry over" its replication facility back to Channel 13. As shown below, the proposed facility would serve 83.5% of the target baseline service population, which satisfies the 80% population match requirement of the DTV Channel election process<sup>3</sup>.

**WBKO-DT Population Match Determination<sup>4</sup>**

<u>WBKO(TV) Facility</u>	<u>ERP/HAAT</u>	<u>Interference-Free Service Population (2000 Census)</u>	<u>Percent match of Target</u>
NTSC Ch. 13 (1997 baseline facility)	316 kW / 226 m	541,946	--
DTV Ch. 33 Allotment	1000 kW / 226 m	690,597	--
DTV Ch. 33 Proposed	490 kW / 202 m	452,739	83.5%

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<sup>2</sup>Public Notice "Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes," DA 04-2446, released August 3, 2004.

<sup>3</sup>See Report and Order, "Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television," FCC 04-192, released September 7, 2004.

<sup>4</sup>Interference-free service population is population within contour less population subject to terrain blockage and interference per FCC OET Bulletin 69. Target population for "Percent Match" is the smaller of the 1997 NTSC facility and DTV allotment.

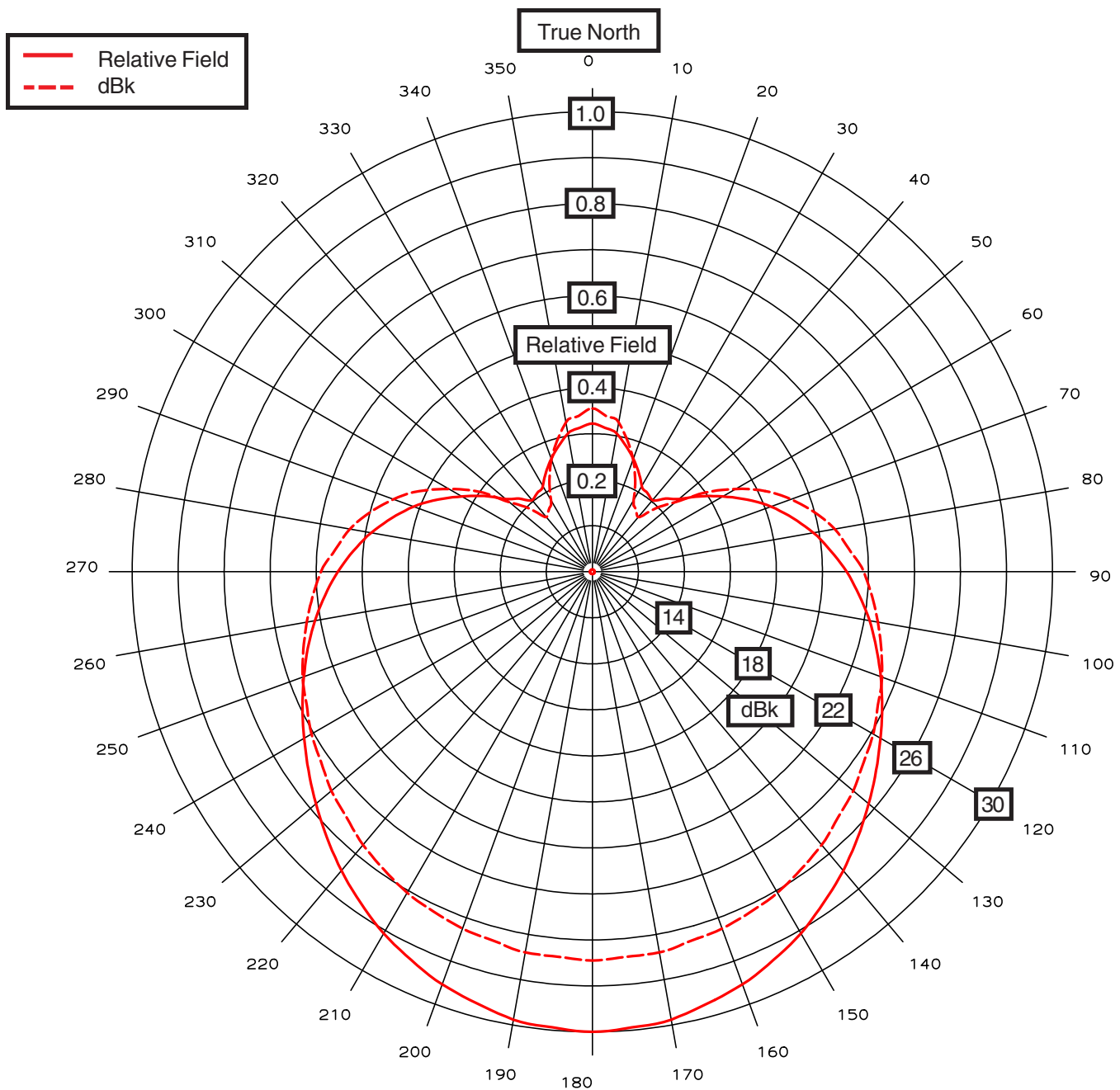
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**Allocation Matters**

Under the instant proposal, WBKO-DT will operate at its presently authorized site with reduced ERP and HAAT. The resulting coverage and interfering contour locations are wholly within those of the authorized facility. The proposal's ERP/HAAT combination (490 kW MAX-DA/ 203 m) does not exceed that which was allotted to WBKO-DT (874.2 kW MIN-DA / 226 m), therefore a detailed interference study per OET Bulletin 69 is not required. As a "checklist" facility, no consideration of Class A television stations is required.

The nearest FCC monitoring station is 387.7 km distant at Powder Springs, GA. This exceeds by a great margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. There are no authorized AM broadcast stations within 3.2 km (2 miles) of the proposed site, according to information extracted from the Commission's engineering database.

Thus, this proposal is believed to be in compliance with the current Commission Rules and policy with respect to allocation matters.



**EXHIBIT 41 - FIGURE 1**  
**ANTENNA HORIZONTAL PLANE RADIATION PATTERN**

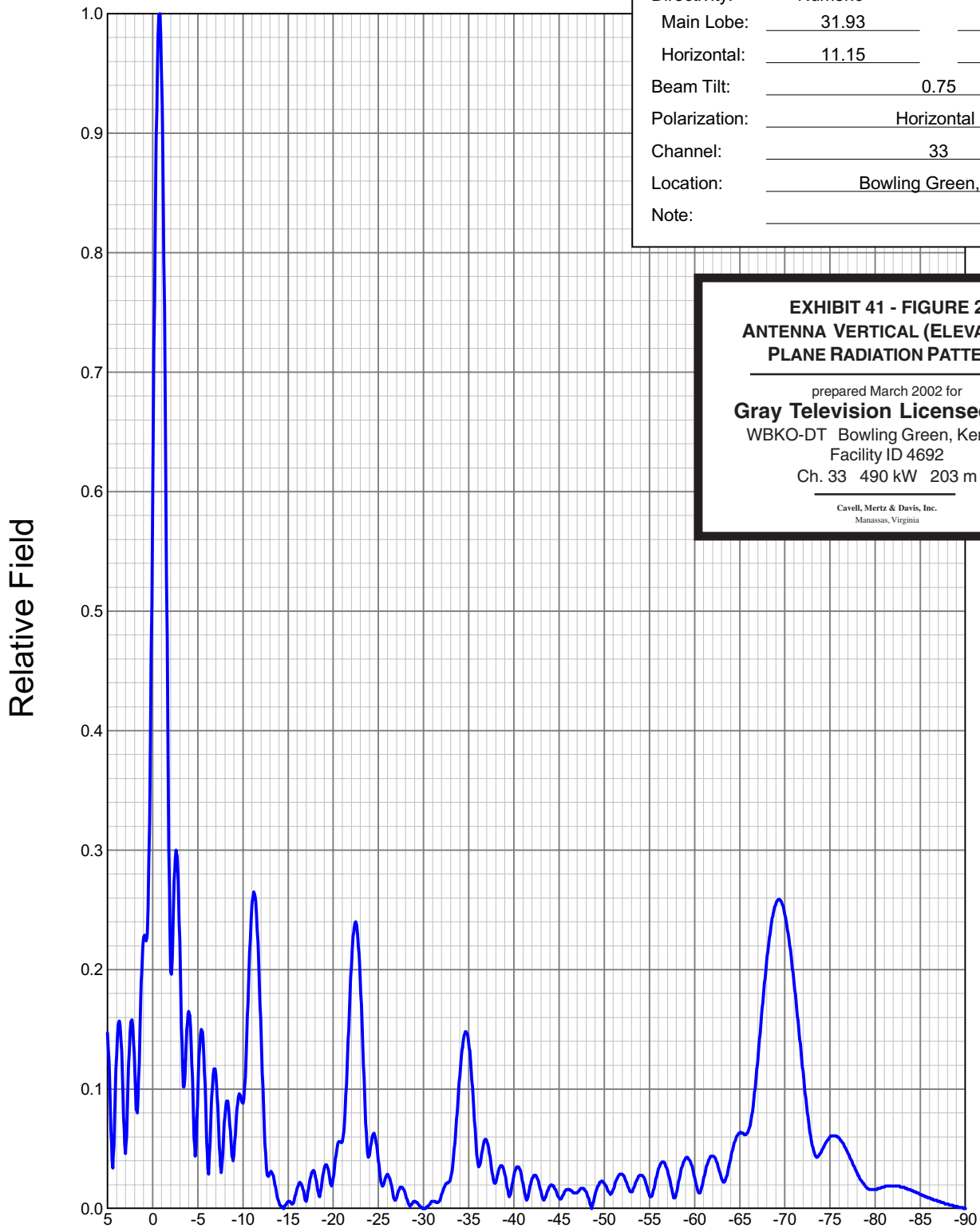
prepared September 2005 for  
**Gray Television Licensee, Inc.**  
WBKO-DT Bowling Green, Kentucky  
Facility ID 4692  
Ch. 33 490 kW 203 m

**Cavell, Mertz & Davis, Inc.**  
Manassas, Virginia



## ELEVATION PATTERN

Type:	ALP32M3	
Directivity:	Numeric	dBd
Main Lobe:	31.93	15.04
Horizontal:	11.15	10.47
Beam Tilt:	0.75	
Polarization:	Horizontal	
Channel:	33	
Location:	Bowling Green, KY	
Note:		



### EXHIBIT 41 - FIGURE 2 ANTENNA VERTICAL (ELEVATION) PLANE RADIATION PATTERN

prepared March 2002 for  
**Gray Television Licensee, Inc.**  
WBKO-DT Bowling Green, Kentucky  
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Cavell, Mertz & Davis, Inc.  
Manassas, Virginia

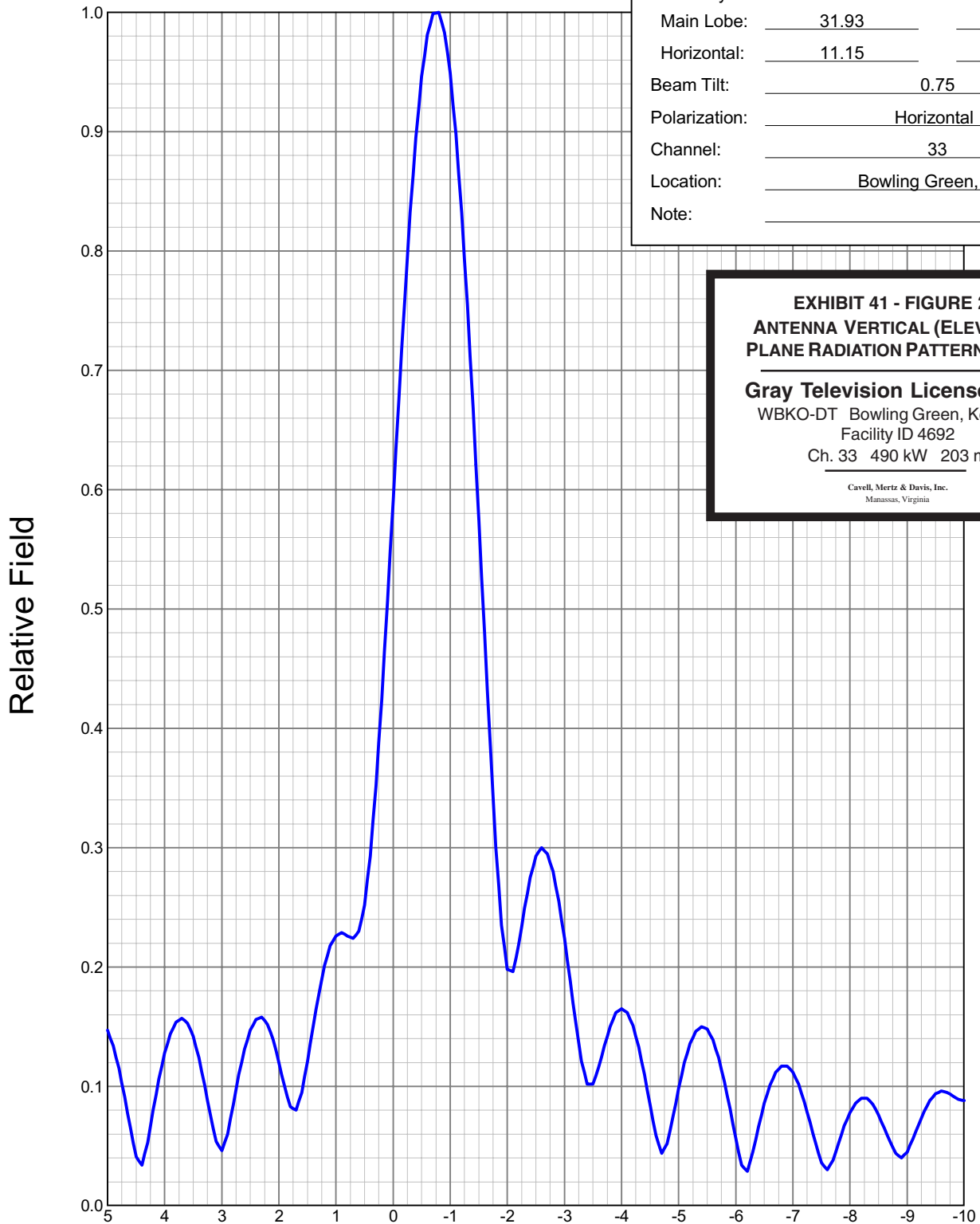


Electronics Research, Inc.  
7777 Gardner Road  
Chandler, Indiana U.S.A 47610



## ELEVATION PATTERN

Type:	ALP32M3	
Directivity:	Numeric	dBd
Main Lobe:	31.93	15.04
Horizontal:	11.15	10.47
Beam Tilt:	0.75	
Polarization:	Horizontal	
Channel:	33	
Location:	Bowling Green, KY	
Note:		



**EXHIBIT 41 - FIGURE 2A  
ANTENNA VERTICAL (ELEVATION)  
PLANE RADIATION PATTERN DETAIL**

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