

Exhibit 6 - Statement A
NATURE OF THE PROPOSAL
ALLOCATION CONSIDERATIONS
prepared for
Gray Television Licensee, Inc.
W64AO Charlottesville, Virginia
Facility ID 4687
Ch. 16 150 kW

Gray Television Licensee, Inc. is the licensee of Low Power Television (“LPTV”) station W64AO, Channel 64, Charlottesville, Virginia, Facility ID 4687 (BLTT-19801015IC).¹ The instant application proposes to change W64AO’s channel of operation to Channel 16. Additionally, it is proposed to increase effective radiated power (“ERP”), reduce antenna height above ground, and employ a different directional antenna pattern. No change in transmitter site is proposed. The instant application qualifies as a “displacement” application per §73.3572(a)(4)(ii) of the Commission’s Rules, as W64AO’s licensed operation on Channel 64 is between Channels 52 and 69.

The transmitting location is on Carter’s Mountain, approximately 6 km south of Charlottesville. The proposed W64AO facility will employ a replacement antenna structure at the licensed transmitting location.

The existing W64AO tower structure, 60.4 meters overall height above ground (“AGL”), will be removed, and a replacement tower structure will be erected. The proposed replacement tower’s overall height is 57.9 meters AGL. The proposed transmitting antenna for W64AO will be side mounted and centered at 41.1 meters AGL (which is reduced from the present antenna’s center of radiation of 53.5 meters AGL). Under a separate proposal, the transmitting antenna for a new analog television station on Channel 19 will be top-mounted on the replacement W64AO tower structure.²

¹W64AO has been a translator facility for television station WHSV-TV (Channel 3, Harrisonburg, VA). *Gray* recently advised the Commission that W64AO should be considered a Low Power Television station rather than a television translator station.

²See file number BMPCT-20031219AAK, Facility ID 363, Charlottesville, VA. *Gray* is the proposed assignee of the CP for Channel 19 under pending assignment application BAPCT-20040316AJT.

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Due to the structure height and location, FAA notification under §17.7 of the Commission's Rules is not required (based on the Commission's TOWAIR computer program). Absent the need for FAA notification, commensurate FCC Antenna Structure Registration and structure marking/lighting is also not required.

Allocation Details

Due to the congested nature of the television spectrum in the Charlottesville, VA region, no "core" channels are available which comply with all standard Commission allocation requirements. However, a search of the television spectrum has yielded Channel 16 as a suitable alternative channel, premised on the grant of a waiver of certain allocation requirements as discussed fully below.

In particular, the instant proposal complies with the standard requirements of §§74.705 - 74.708 of the FCC Rules with respect to all other facilities, except for the following:

<u>Call</u>	<u>Status</u>	<u>Ch.</u>	<u>File Number</u>	<u>City, State</u>
WAZC-LP	Lic	16	BLTTL-20020508AAB	Luray, VA
WJAL-DT	App	16	BPCDT-19991101ADQ	Hagerstown, MD
WHRO-DT	CP	16	BMPEDT-20000428ADG	Hampton, VA
WGPX(TV)	Lic	16	BLCT-19980410KG	Burlington, NC
WQEX(TV)	Lic	16	BMLCT-20031003ACD	Pittsburgh, PA
WQEX(TV)	App	16	BPCT-20030108ABB	Pittsburgh, PA
New(TV)	CP	19	BPCT-19860410KP	Charlottesville, VA
New(TV)	App	19	BMPCT-2003121AAK	Charlottesville, VA
WCVE-TV	Lic	23	BLET-20030520AKD	Richmond, VA

OET Bulletin 69 Analysis

Regarding interference protection to all facilities listed above, a detailed interference study was conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission's Office of Engineering and Technology Bulletin number 69, *Longley-*

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Rice Methodology for Evaluating TV Coverage and Interference, July 2, 1997 (“OET-69”)³. The interference study examined the change in interference as experienced by these stations that would result from the proposed facility. The results, summarized in the attached **Exhibit 6 - Table 1**, showed that the proposed operation will not cause any new interference to any of these stations in excess of the FCC’s 0.5 percent rounding tolerance permitted for LPTV station proposals.

Protection to New(TV) Channel 19

The W64AO site is within 32 km of an unbuilt Construction Permit (“CP”) analog television facility on Channel 19, (Facility ID 363, Charlottesville, VA) . The Channel 19 facility represents a “N-3” taboo relationship, and §74.705 requires that such stations be separated by a minimum of 32 km, owing to the proposed W64AO ERP being greater than 50 kW. In this case, the Channel 19 CP is 0.1 km from the proposed W64AO Channel 16 operation (essentially co-located). An application is pending to modify the Channel 19 facility CP to co-locate on the replacement W64AO tower structure.⁴

The Channel 19 facility is three channels removed from that of the proposed Channel 16 W64AO operation, and the minimum distance separation requirement of 32 km is primarily intended to avoid intermodulation interference. Any resulting intermodulation problem from the “N+/-3” relationship would be expected to affect reception of an analog television station with the channel assignment of 2A minus B, where “A” represents either the W64AO (Channel 16) or the Channel 19 CP channel number, and “B” would be the other station’s channel. Such interference (which occurs in an NTSC television receiver and is not emitted over the air) would be present only when both channel “A” and “B” signal levels are very high, and would occur in areas nearby the transmitter site.

³The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard cell size of 2 km was employed, except that 1 km cells were employed for LPTV station evaluation since LPTV stations typically have smaller service areas. Comparisons of various results of this computer program (run on a Sun processor) to the Commission’s implementation of OET-69 show excellent correlation.

⁴ Gray is the proposed assignee of the CP for Channel 19.

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In this case, N+/-3 intermodulation interference could impair reception of analog television stations on Channel 22, only within the immediate area of Charlottesville.⁵ A search of the Commission's database showed that the nearest full service analog television station on Channel 22 is WMPT(TV) (Annapolis, MD), 199.1 km distant, which is too far away to be affected. Digital television ("DTV") station WRIC-DT (Richmond, VA) is located 93.6 km distant, however DTV reception is not considered in the Commission's allocation rules to be affected by intermodulation interference from analog stations. Thus, there are no potential "victim" stations which provide useable service to the area near W64AO. Additionally, as shown in **Exhibit 6 - Table 1**, the OET Bulletin 69 detailed interference analysis shows that no "crossmodulation" interference to the co-located Channel 19 facility will result.

Protection to WCVE-TV

The W64AO site is located 93.6 km from WCVE-TV (Channel 23, Richmond, VA), 6.4 km short of the required 100 km separation. However, pursuant to §74.705(b)(1), a site not meeting the 100 km separation may be authorized if the affected analog television station (7 channels above the proposed channel) is not regularly viewed in the proposed LPTV service area. **Exhibit 6 - Figure 1** depicts the proposed W64AO transmitter site location, which is located outside the WCVE-TV Grade B (64 dBμ) contour, and the W64AO directional antenna is oriented away from WCVE-TV. The W64AO 74 dBμ service area contour overlaps only a small portion of the WCVE-TV Grade B contour. Additionally, as shown in **Exhibit 6 - Table 1**, the OET Bulletin 69 analysis indicates that no interference to WCVE-TV is predicted.

WCVE-TV, a PBS affiliate, is licensed to the same entity (Commonwealth Public Broadcasting Corporation) as WHTJ(TV) (Ch. 41, Charlottesville, VA), also a PBS affiliate. WHTJ is located on Carters Mountain in close proximity to the proposed W64AO operation (0.25 km distant) and carries much of the same programming as WCVE-TV. **Exhibit 6 - Figure 1** also

⁵Television Channel 13 would not experience intermodulation interference since the frequency band for Channel 13 is high-VHF and not adjacent to the UHF television band.

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depicts the WHTJ Grade B contour, which overlaps the WCVE-TV Grade B contour and encompasses the entire proposed W64AO 74 dB μ service contour. Any location where reception of the W64AO on Channel 16 might impair WCVE-TV Channel 23 reception⁶ would be served by the WHTJ facility (commonly owned with WCVE-TV and similarly programmed), which should have a stronger signal and is more likely to be viewed in the Charlottesville area than WCVE-TV. Therefore, it is believed that the proposal will not impact WCVE-TV.

If a waiver of §§74.704 - 74.708 is required, then one is requested for the reasons described above on behalf of the applicant. Thus, as described above, interference protection as required will be provided to primary TV, digital TV, Low Power TV, TV translator stations, and Class A television stations.

Other Allocation Matters

The nearest FCC monitoring station is 195.2 km distant at Laurel, MD. This exceeds by a great margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. Based on information extracted from the Commission's engineering database, there are no AM stations within 3.2 km of the proposed site. The W64AO transmitter site is not located within the bounds of the area specified in §73.1030(a)(1) concerning coordination with the National Radio Astronomy Observatory at Green Bank, WV.

The W64AO site is located 163.6 km from the reference coordinates for the Washington, DC region use of land mobile facilities within television Channel 17's spectrum, first adjacent to the proposed use of Channel 16. The instant proposal complies with §74.709(d)(3), as demonstrated in **Exhibit 6 - Figure 2**, in that the proposed LPTV facility 76 dB μ F(50,10) contour does not overlap

⁶The N+7 "taboo" relationship is due to the potential Local Oscillator effect, where a television set tuned to the lower numbered channel (Channel 16) can emit a low-level frequency signal within the spectrum of the higher-numbered channel (Channel 23) which can impair reception of the higher-numbered channel for a receiver in close proximity. An OET Technical Memorandum (*A Study of UHF Television Receiver Interference Immunities*, by Hector Davis, August 1987) suggests that this taboo may be overly restrictive.

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any part of the land mobile protected area (a 130 km radius from the Washington, DC land mobile reference coordinates).

As described fully above, it is believed that the instant proposal complies with the Commission's allocation Rules and policies.

Exhibit 6 - Table 1
INTERFERENCE ANALYSIS RESULTS SUMMARY
 prepared for
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Stations Considered	City, State Channel	Distance (km)	Baseline Population (1)	Service Population (2)	---- Unique Interference ---- from proposal	
					Population (3)	Percentage (4)
WAZC-LP (Lic)	Luray, VA 16	73.8	----- no interference caused by proposal -----			
WJAL-DT (App)	Hagerstown, MD 16	216.2	703,000	1,488,038	395	0.06
WHRO-DT (CP)	Hampton, VA 16	218.4	----- no interference caused by proposal -----			
WGPX(TV) (Lic)	Burlington, NC 16	219.1	1,562,888	1,162,110	0	0.00
WQEX(TV) (Lic)	Pittsburgh, PA 16	301.8	2,566,717	2,418,015	52	0.00
WQEX(TV) (App)	Pittsburgh, PA 16	301.8	2,690,363	2,543,876	0	0.00
New(TV) (CP)	Charlottesville, VA 19	0.1	----- no interference caused by proposal -----			
New(TV) (App)	Charlottesville, VA 19	0.0	----- no interference caused by proposal -----			
WCVE-TV (Lic)	Richmond, VA 23	93.6	----- no interference caused by proposal -----			

Notes:

- (1) For DTV Stations: Greater of NTSC or DTV Service Population, from FCC Table
 For NTSC Stations: Population within noise-limited contour
 For LPTV & Class A Stations: Population within 74 dBμ contour (with dipole factor)
- (2) Interference-free service population per OET-69 before consideration of proposal
- (3) Net change in population receiving interference resulting from proposal
- (4) Proposal's impact in terms of percentage, equals (3)/(1) times 100 percent: not to exceed zero when rounded to the nearest whole percent

The determination of stations for consideration and the determination of baseline population and interference percentages were made as described in the Commission's August 10, 1998 Public Notice "Additional Application Processing Guidelines for Digital Television"

EXHIBIT 6 - FIGURE 1
"N+7" ALLOCATION MAP

prepared April 2004 for
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Cavell, Mertz & Davis, Inc.
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