

2355 Ranch Drive  
Westminster, CO 80234  
Phone (303) 465-5742 Fax (303) 465-4067  
e-mail: STCL@attbi.com

***B. W. St. Clair***

---

---

## **AMENDMENT TO APPLICATION MINOR CHANGE TO LICENSED FACILITY**

**W28AS (28+), FID 68408, Wheeling, WV**  
**APPLICANT: Turnpike Television**  
**FCC FILE NUMBER: BPTTA20011031ABV**

### **ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS**

#### **1. INTRODUCTION**

Station Licenses, Construction Permits or DTV applications having one or more overlapping protected/interfering contours or which are short-spaced by rule with the applicant:

W25CIA (29Z) Steubenville, OH, BPTTL20020711ADC  
W25BK.A (28-) Freedom, PA, BPTTL20010712ADP  
WUAB-D (28) Lorain, OH, BLCDT20020516AAG  
WVFX-D.C (28) Clarksburg, WV, BPCDT19991028AEH  
WPTO-D.C (28) Oxford, OH, BPEDT20000428ACS  
WTTE (28-) Columbus, OH, BLCT19840614KE  
WTTE.C (28-) Columbus, OH, BPCT20021018AGK  
WKBNTV (27Z) Youngstown, OH, BLCT2489

#### **2. DISCUSSION**

Although there are one or more overlapping protected v. interfering contours between this application and the other Station Licenses, Construction Permits or DTV applications as shown below, all were subjected to an analysis of potential interference which includes a Longley-Rice study in accordance with OET Bulletin 69 of the actual predicted interference between this application and the identified conflicts. The findings are shown below.

## **ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -2**

### **3. ANALYSIS**

Interference caused by the Applicant's proposed facility to

W25CLA (29Z) Steubenville, OH, BPTTL20020711ADC  
...0.311%, which per OET 69 is Zero.

W25BK.A (28-) Freedom, PA, BPTTL20010712ADP  
...0.090%, which per OET 69 is Zero.

WUAB-D (28) Lorain, OH, BLCDT20020516AAG  
...0.193%, which per OET 69 is Zero.

WVFX-D.C (28) Clarksburg, WV, BPCDT19991028AEH  
...0.283%, which per OET 69 is Zero.

WPTO-D.C (28) Oxford, OH, BPEDT20000428ACS  
...NONE.

WTTE (28-) Columbus, OH, BLCT19840614KE  
...0.009%, which per OET 69 is Zero.

WTTE.C (28-) Columbus, OH, BPCT20021018AGK  
...0.014%, which per OET 69 is Zero.

WKBNTV (27Z) Youngstown, OH, BLCT2489  
...0.051%, which per OET 69 is Zero.

If applicable, the Longley-Rice study printout is shown in item #5 below.

### **4. CONCLUSION**

No interference or interference to zero persons per OET Bulletin 69 is caused to the station licenses, construction permits or DTV applications shown above when the Longley-Rice study is used as part of the application. Thus, this application is not mutually exclusive with any station licenses, construction permits or DTV applications. Accordingly, waiver of 73.6011, 73.6013, 73.6012 and 73.6014 as applicable is requested that this application be allowed to proceed forthwith to the permitting process.

## **ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -3**

### **5. ATTACHMENTS - PRINTOUT OF APPLICABLE LONGLEY-RICE STUDY**

V-Soft Communications Population Report  
 INCOMING TO W25CI.A (29Z) Steubenville, OH FROM W28AS (28+), FID 68408, Wheeling, WV

TV Incoming Interference Study  
 Signal Resolution: 1.5 km  
 Consider NTSC Taboo: Yes  
 KWX error points are considered to  
 be interference free coverage.  
 # of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the  
 reference station's 74 dBu FCC contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 74.0

Study Date: 1/20/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)  
 Percentages calculated using a baseline population of 65,349.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
W28AS.A (28+)	0	203	0.311	4.20

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
W28AS.A (28+)	203	0.311	203	0.311

---

Call Letters	City	State	Dist	Bear
W28AS.A (28+)	Wheeling	WV	36.6	202.3

---

Totals for W25CI.A (29Z)

Calculation Area Population:	66,565 ( 656.2 sq. km )
Not Affected by Terrain Loss:	65,349 ( 622.7 sq. km )
Total NTSC Interference:	203 ( 4.2 sq. km )
DTV Only Interference:	0 ( 0.0 sq. km )
Total DTV Interference:	0 ( 0.0 sq. km )
Interfered Population:	203 ( 4.2 sq. km )
Interference Free:	65,146 ( 618.5 sq. km )
Percent Interference:	0.31
Terrain Blocked Population:	1,216 ( 33.5 sq. km )
Contour Area Population:	66,918

**ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -4**

V-Soft Communications Population Report  
 INCOMING TO W25BK.A (28-) Freedom, PA FROM W28AS (28+), FID 68408, Wheeling, WV

TV Incoming Interference Study

Signal Resolution: 1.5 km  
 Consider NTSC Taboo: Yes  
 KWX error points are considered to  
 be interference free coverage.  
 # of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the  
 reference station's 74 dBu FCC contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 74.0

Study Date: 1/17/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)

Percentages calculated using a baseline population of 120,301.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
W28AS.A (28+)	0	108	0.090	2.08

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
W28AS.A (28+)	108	0.090	108	0.090

---

Call Letters	City	State	Dist	Bear
W28AS.A (28+)	Wheeling		WV	82.0 211.4

---

Totals for W25BK.A (28-)

Calculation Area Population:	125,738 ( 361.1 sq. km )
Not Affected by Terrain Loss:	120,301 ( 340.2 sq. km )
Total NTSC Interference:	108 ( 2.1 sq. km )
DTV Only Interference:	0 ( -0.0 sq. km )
Total DTV Interference:	0 ( 0.0 sq. km )
Interfered Population:	108 ( 2.1 sq. km )
Interference Free:	120,193 ( 338.1 sq. km )

Percent Interference: 0.09

Terrain Blocked Population:	5,437 ( 20.9 sq. km )
Contour Area Population:	125,812

## ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -5

V-Soft Communications Population Report  
 INCOMING TO WUAB-D (28) Lorain, OH FROM W28AS (28+), FID 68408, Wheeling, WV  
 TV Incoming Interference Study  
 Signal Resolution: 1.5 km  
 Consider NTSC Taboo: Yes  
 KWX error points are considered to

be interference free coverage.  
 # of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the  
 reference station's noise limited contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 40.14

Study Date: 1/17/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)

Percentages calculated using a baseline population of 3,699,912.  
 Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
W28AS.A (28+)	0	7148	0.193	95.32

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
W28AS.A (28+)	7148	0.193	7148	0.193

---

Call Letters	City	State	Dist	Bear
W28AS.A (28+)	Wheeling		WV	167.6 150.5

---

Totals for WUAB-D (28)

Calculation Area Population:	3,704,760 ( 22291.7 sq. km )
Not Affected by Terrain Loss:	3,699,912 ( 22219.0 sq. km )
Total NTSC Interference:	7,148 ( 95.3 sq. km )
DTV Only Interference:	0 ( -0.0 sq. km )
Total DTV Interference:	0 ( 0.0 sq. km )
Interfered Population:	7,148 ( 95.3 sq. km )
Interference Free:	3,692,764 ( 22123.7 sq. km )

Percent Interference: 0.19

Terrain Blocked Population:	4,848 ( 72.6 sq. km)
Contour Area Population:	3,704,536

## ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -6

V-Soft Communications Population Report  
 INCOMING TO WVFX-D.C (28) Clarksburg, WV FROM W28AS (28+), FID 68408, Wheeling, WV

TV Incoming Interference Study  
 Signal Resolution: 1.5 km  
 Consider NTSC Taboo: Yes

KWX error points are considered to be interference free coverage.  
 # of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the reference station's noise limited contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 40.14

Study Date: 1/20/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)  
 Percentages calculated using a baseline population of 555,722.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
WTTE (28-)	0	5913	1.064	141.71
WUAB-D (28)	0	916	0.165	40.14
W28AS.A (28+)	0	3171	0.571	80.10

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
WTTE (28-)	5913	1.064	3958	0.712
WUAB-D (28)	916	0.165	220	0.040
W28AS.A (28+)	3171	0.571	1570	0.283

---

Call Letters	City	State	Dist	Bear
WTTE (28-)	Columbus	OH	240.7	294.1
WUAB-D (28)	Lorain	OH	258.7	333.6
W28AS.A (28+)	Wheeling	WV	91.5	337.6

---

Totals for WVFX-D.C (28)

Calculation Area Population: 598,117 ( 21394.2 sq. km )  
 Not Affected by Terrain Loss: 555,722 ( 20371.2 sq. km )  
 Total NTSC Interference: 7,607 ( 194.4 sq. km )

## ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -7

DTV Only Interference: 220 ( 14.8 sq. km )  
 Total DTV Interference: 916 ( 40.1 sq. km )  
 Interfered Population: 7,827 ( 209.2 sq. km )  
 Interference Free: 547,895 ( 20162.0 sq. km )

Percent Interference: 1.41

Terrain Blocked Population: 42,395 ( 1023.0 sq. km)

Contour Area Population: 598,659

## **ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -8**

V-Soft Communications Population Report

INCOMING TO WPTO-D.C (28) Oxford, OH FROM W28AS (28+), FID 68408, Wheeling, WV

TV Incoming Interference Study

Signal Resolution: 1.5 km  
 Consider NTSC Taboo: Yes  
 KWX error points are considered to  
 be interference free coverage.  
 # of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the  
 reference station's noise limited contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 40.14

Study Date: 1/17/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)  
 Percentages calculated using a baseline population of 3,174,543.

Stations considered which do not cause interference:

W28AS.A (28+)

-----  

Call Letters	City	State	Dist	Bear
W28AS.A (28+)	Wheeling	WV	338.1	78.4

 -----

Totals for WPTO-D.C (28)

Calculation Area Population: 3,178,685 ( 22569.0 sq. km )  
 Not Affected by Terrain Loss: 3,174,543 ( 22462.0 sq. km )  
 Total NTSC Interference: 0 ( 0.0 sq. km )  
 DTV Only Interference: 0 ( 0.0 sq. km )  
 Total DTV Interference: 0 ( 0.0 sq. km )  
 Interfered Population: 0 ( 0.0 sq. km )  
 Interference Free: 3,174,543 ( 22462.0 sq. km )

Percent Interference: 0.00

Terrain Blocked Population: 4,142 ( 107.1 sq. km)  
 Contour Area Population: 3,177,199

**ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -9**

V-Soft Communications Population Report  
 INCOMING TO WTTE (28-) Columbus, OH FROM W28AS (28+), FID 68408, Wheeling, WV  
 TV Incoming Interference Study  
 Signal Resolution: 1.5 km  
 Consider NTSC Taboo: Yes  
 KWX error points are considered to

be interference free coverage.  
 # of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the  
 reference station's noise limited contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 63.132

Study Date: 1/17/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)  
 Percentages calculated using a baseline population of 1,949,490.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
W28AS.A (28+)	0	180	0.009	14.71

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
W28AS.A (28+)	180	0.009	180	0.009

---

Call Letters	City	State	Dist	Bear
W28AS.A (28+)	Wheeling		WV	185.3 92.7

---

Totals for WTTE (28-)

Calculation Area Population:	1,973,278 ( 18007.6 sq. km )
Not Affected by Terrain Loss:	1,949,490 ( 17700.8 sq. km )
Total NTSC Interference:	180 ( 14.7 sq. km )
DTV Only Interference:	0 ( 0.0 sq. km )
Total DTV Interference:	0 ( 0.0 sq. km )
Interfered Population:	180 ( 14.7 sq. km )
Interference Free:	1,949,310 ( 17686.1 sq. km )

Percent Interference: 0.01

Terrain Blocked Population:	23,788 ( 306.9 sq. km)
Contour Area Population:	1,972,348

## ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -10

V-Soft Communications Population Report  
 INCOMING TO WTTE.C (28-) Columbus, OH FROM W28AS (28+), FID 68408, Wheeling, WV  
 TV Incoming Interference Study  
 Signal Resolution: 1.5 km  
 Consider NTSC Taboo: Yes  
 KWX error points are considered to

be interference free coverage.  
 # of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the  
 reference station's noise limited contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 63.132

Study Date: 1/17/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)  
 Percentages calculated using a baseline population of 1,869,061.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
W28AS.A (28+)	0	257	0.014	18.94

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
W28AS.A (28+)	257	0.014	257	0.014

---

Call Letters	City	State	Dist	Bear
W28AS.A (28+)	Wheeling		WV	194.2 85.2

---

Totals for WTTE.C (28-)

Calculation Area Population:	1,885,661 ( 15692.2 sq. km )
Not Affected by Terrain Loss:	1,869,061 ( 15385.9 sq. km )
Total NTSC Interference:	257 ( 18.9 sq. km )
DTV Only Interference:	0 ( 0.0 sq. km )
Total DTV Interference:	0 ( 0.0 sq. km )
Interfered Population:	257 ( 18.9 sq. km )
Interference Free:	1,868,804 ( 15367.0 sq. km )

Percent Interference: 0.01

Terrain Blocked Population:	16,600 ( 306.2 sq. km)
Contour Area Population:	1,885,024

## **ENGINEERING EXHIBIT - INTERFERENCE ANALYSIS -11**

V-Soft Communications Population Report

INCOMING TO WKBNTV (27Z) Youngstown, OH FROM W28AS (28+), FID 68408, Wheeling, WV

TV Incoming Interference Study

Signal Resolution: 1.5 km

Consider NTSC Taboo: Yes

KWX error points are considered to  
 be interference free coverage.

# of radials computed for contours: 36  
 Contours calculated using 8 radial HAAT.  
 LR Profile Spacing Increment: 0.1 km  
 Interference considered within the  
 reference station's noise limited contour.  
 Using NTSC lptv/translators D/U rules.  
 Threshold for reception: 63.046

Study Date: 1/17/2003  
 TV Database Date: 01-09-03

Population Database: 2000 US Census (PL)  
 Percentages calculated using a baseline population of 2,609,628.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
W28AS.A (28+)	0	1334	0.051	8.38

Masking Summary:

Call Letters	Total Interference		Unique Interference	
	Population	%	Population	%
W28AS.A (28+)	1334	0.051	1334	0.051

---

Call Letters	City	State	Dist	Bear
W28AS.A (28+)	Wheeling		WV	111.0 184.7

---

Totals for WKBNTV (27Z)

Calculation Area Population:	2,695,448 ( 20410.6 sq. km )
Not Affected by Terrain Loss:	2,609,628 ( 19902.5 sq. km )
Total NTSC Interference:	1,334 ( 8.4 sq. km )
DTV Only Interference:	0 ( -0.0 sq. km )
Total DTV Interference:	0 ( 0.0 sq. km )
Interfered Population:	1,334 ( 8.4 sq. km )
Interference Free:	2,608,294 ( 19894.1 sq. km )

Percent Interference: 0.05

Terrain Blocked Population:	85,820 ( 508.1 sq. km)
Contour Area Population:	2,692,223

END OF EXHIBIT