Engineering Statement

The original WHRE (TV) analog construction permit[1] was not granted until after the initial digital Table of Allotments was generated. Therefore, WHRE was not the recipient of a digital companion channel and is not presently authorized to operate in digital mode. However, during the channel election process WHRE was assigned Channel 7 with an effective radiated power of 4.86 kW from its present site. The theoretical antenna pattern assigned to WHRE-DT on Channel 7 was generated by using relative fields which would replicate its presently licensed analog pattern on Channel 21.

Since these assigned digital patterns are based entirely on replicating a station's analog service, they do not always represent patterns that can be duplicated with real world antennas. In the case of WHRE, the digital channel is in a different portion of the spectrum (VHF High Band as opposed to UHF) and (like all digital channels) it is based on a different propagation curve than the analog service. Therefore, the proposed antenna pattern represents the vendor's best effort to replicate the analog service, but it is not completely equivalent. ***Exhibit 44.1*** shows the contour generated by theoretical Appendix B pattern with a blue line. The actual service contour produced by the proposed antenna is shown with a red line. The two contours are very near equivalency in the major lobe ends of the "peanut" style pattern. However along the minor lobes on the sides, the proposed contour exceeds the theoretical Appendix B pattern. Under most conditions the proposed pattern would be considered a good and reasonable fit of the theoretical pattern. However, the Commission currently has a freeze on extending service in any direction.

In order to strictly comply with the freeze, WHRE would need to reduce power until the minor lobes along the sides are conformed to the theoretical Appendix B pattern. But this would reduce service in the major lobes where the two patterns are closely matched. In the recent *Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*[2] the Commission recognized this could be a problem, especially for stations moving to a different channel for post-transition operation. Paragraph 151 and following sets forth a Filing Freeze Waiver Policy for stations such as WHRE. ***This application requests such a waiver of the Filing Freeze***.

The present application meets the requirements for such a waiver. As has already been demonstrated, a waiver of this policy would allow WHRE to use a new antenna to "avoid a significant reduction in post-transition service from its analog service area."[3]

The second requirement for a waiver of the freeze provides that the proposed service area will not be extended more than five miles (8.0 km) in any direction. ***Exhibit 44.2*** lists the distance to the Appendix B and proposed contours for each of the 36 radials on which a relative field value is specified in the antenna patterns. The final column of the tabulation shows the distance by which the proposed post-transition pattern exceeds the Appendix B pattern. The cells in this column have been formatted to show the value in green if the distance is less than or equal to 8.0 km and red if the distance is greater than 8.0 km. Inspection of this column will show the proposed antenna pattern complies with this waiver requirement.

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[1] File No. BPCT-19960614KI was granted 6/1/2005.
[2] Report and Order, FCC 07-228, Released December 31, 2007, in MB Docket 07-91
[3] Ibid. ¶ 151 (1).

The final waiver requirement is that the proposed expansion "…not cause impermissible interference, *i.e.,* more than 0.5 percent new interference, to other stations."[4] The proposed WHRE-DT digital operation was evaluated using the SunDTV™ software interface available from V-Soft Communications. This allows PC users to run the OET Bulletin No. 69 software on a computer platform equivalent to that used by the Commission. The interference study was based on the parameters set forth in the new §73.616 using a standard 2 km study grid and 1 km terrain increment. US 2000 Census data was used in conformance with the revised FCC policies for interference studies. A summary of the results is attached as ***Exhibit 44.3***. No impermissible interference will be given to any post-transition, full service station.

Therefore, WHRE meets the stated requirements for a waiver of the Filing Freeze. A waiver would allow WHRE-DT to replicate its present analog service without providing impermissible interference. And this can all be done with a commercially available antenna.

[4] Ibid. ¶ 151(3)

Munn-Reese, Inc.

WHRE-DT-Apndx B
Appendix B
VIRGINIA BEACH VA
Latitude: 36-48-31 N
Longitude: 076-30-12 W
ERP: 4.86 kW
HAAT: 310.0 m
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 316.0 m
Elevation: 7.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: None

WHRE-DT-07
Proposed
VIRGINIA BEACH VA
Latitude: 36-48-31 N
Longitude: 076-30-12 W
ERP: 4.86 kW
HAAT: 310.0 m
Channel: 7
Frequency: 177.0 MHz
AMSL Height: 316.0 m
Elevation: 7.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.0
Prop Model: None

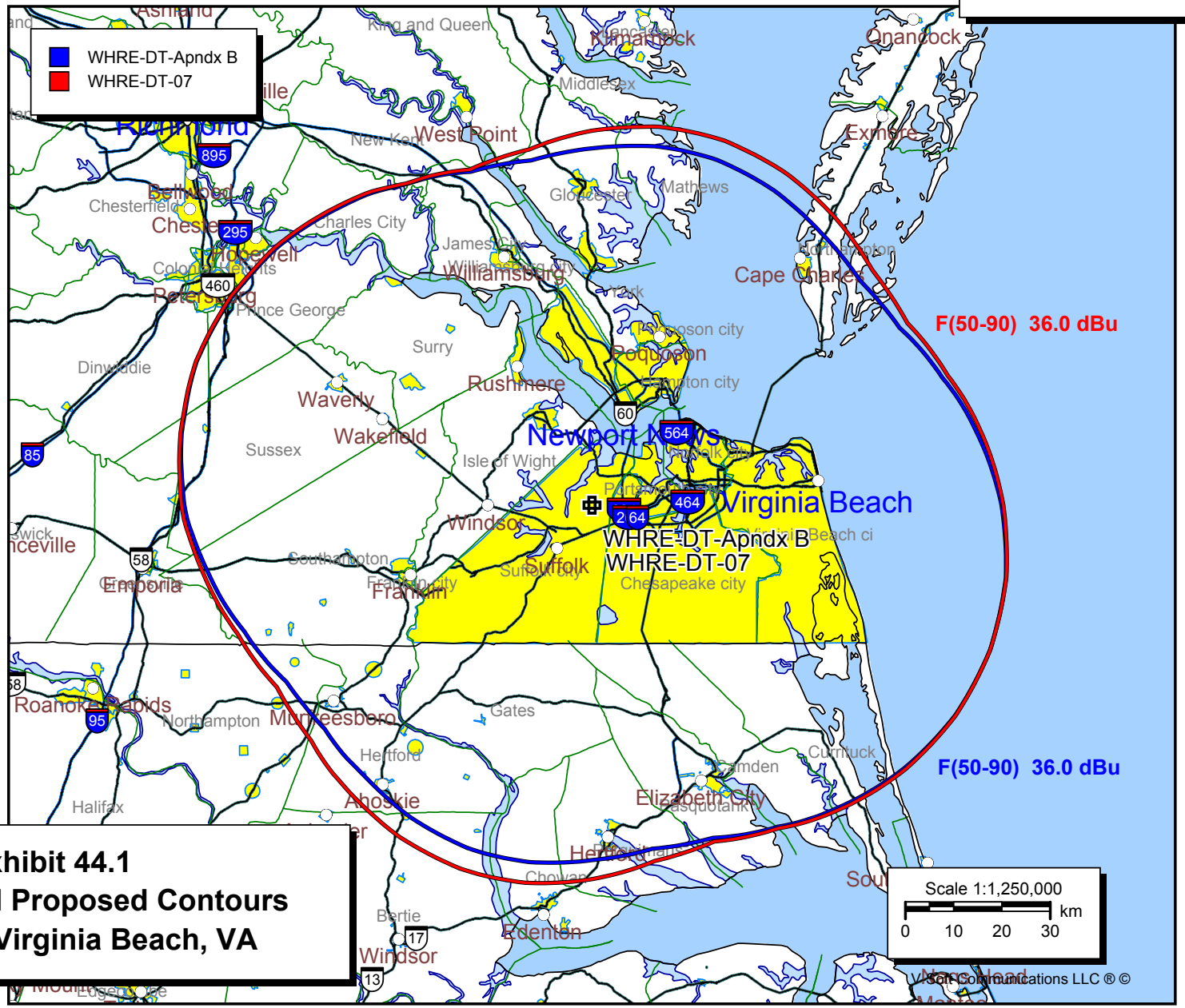

Exhibit 44.1
Appendix B and Proposed Contours
WHRE-DT - Virginia Beach, VA

Exhibit 44.2
Appendix B and Proposed Contour Comparison
WHRE-DT - Virginia Beach, VA

	Appendix B	Post Transition at 4.86 kW	PT - Apndx B
Bearing (deg)	Distance (km)	Distance (km)	Distance (km)
0	73.8	77.4	3.6
10	75.4	79.5	4.1
20	75.9	80.2	4.3
30	75.2	79.6	4.4
40	73.6	77.9	4.3
50	72.3	75.7	3.4
60	73.4	75.3	1.9
70	77.1	78.3	1.2
80	81.2	82.1	0.9
90	84.7	85.0	0.3
100	86.9	87.0	0.1
110	87.6	87.6	0.0
120	86.8	86.9	0.1
130	84.5	84.8	0.3
140	81.0	81.4	0.4
150	76.8	77.2	0.4
160	73.2	74.0	0.8
170	72.2	74.7	2.5
180	73.4	77.3	3.9
190	74.9	79.3	4.4
200	75.4	80.0	4.6
210	74.7	79.3	4.6
220	73.1	77.7	4.6
230	72.1	75.8	3.7
240	73.0	75.2	2.2
250	76.5	77.9	1.4
260	80.6	81.6	1.0
270	84.3	84.9	0.6
280	86.1	86.4	0.3
290	87.0	87.1	0.1
300	86.0	86.2	0.2
310	83.9	84.2	0.3
320	80.6	81.0	0.4
330	76.7	76.8	0.1
340	73.4	73.8	0.4
350	72.4	74.7	2.3

Exhibit 44.3

Summary Study

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 02-22-2008 Time: 13:45:28

Record Selected for Analysis

WHRE-D.R USERRECORD-01 VIRGINIA BEACH VA US
Channel 07 ERP 4.86 kW HAAT 310. m RCAMSL 00316 m
Latitude 036-48-31 Longitude 0076-30-12
Status APP Zone 1 Border
Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	1.239	313.9	77.4
45.0	1.169	311.7	76.8
90.0	3.454	312.5	85.2
135.0	2.752	310.4	83.3
180.0	1.269	310.0	77.3
225.0	1.208	309.7	76.9
270.0	3.487	309.2	85.0
315.0	2.679	305.6	82.8

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Exhibit 44.3

SPACING VIOLATION FOUND BETWEEN STATION

WHRE-D.R 07 VIRGINIA BEACH VA USERRECORD01

and station

SHORT TO: WJLA-TV 07 WASHINGTON DC BPCDT 19990706KE
038-57- 1 0077-04-47
Req. separation 244.6 Actual separation 243.1 Short 1.5 km

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountian

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

****

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
07	WHRE-D.R	VIRGINIA BEACH VA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	WJLA-TV	WASHINGTON DC	243.4	CP	BPCDT	-19990706KE
08	WFXI	MOREHEAD CITY NC	214.0	CP	BPCDT	-19991029AFA

%%%

Study of this proposal found the following interference problem(s):

NONE.