

Exhibit 45 – Statement A
NATURE OF THE PROPOSAL
PROPOSED ANTENNA SYSTEM

prepared for

ACC Licensee, Inc.

WJLA-TV Washington, D.C.

Facility ID: 1051

Ch. 7 52 kW 235.6 m

ACC Licensee, Inc. (“ACC”) is the permittee of digital television station WJLA-TV, Washington, D.C. ACC completed construction of the DTV facility authorized in the construction permit (“CP”) FCC File No. BMPCDT-20080620AIR in June 2009 and filed a license application, FCC File No. BLCDDT-20090615ABY, which is still pending. Shortly after commencing digital operation on Channel 7, WJLA-TV was flooded with calls from viewers who no longer could receive the station. In an attempt to restore coverage, ACC filed for an Experimental Operation and was granted a Special Temporary Authorization (“STA”), FCC File No. BDSTA-20090827ABP, authorizing an increase in the WJLA-TV effective radiated power (“ERP”) from 30 kW to 52 kW.

A condition of the STA grant was for ACC to demonstrate that (1) stations predicted to receive interference in excess of the Commission’s stated limits were not harmed by WJLA-TV’s increase in power and (2) that the increase in digital power helped to restore coverage lost after the switch from analog to digital operation. The results of the testing were reported to the Commission in a request for extension of the STA, see FCC File No. BEDSTA-20091117AAG.

The instant application proposes to make the WJLA-TV STA power increase permanent. Waivers of Section 73.622(f)(7) of the Commission’s Rules (Television Zone I “power cap”) and the Commission’s 0.5% new interference policy¹ are required. In addition, the WJLA-TV antenna has been modified to provide a vertically polarized radiation component. These changes to the antenna specification are provided herein.

Exhibit 45 - Figure 1 provides a map depicting the service contour for the proposed facility along with principal community coverage contour. As demonstrated therein, the principal community of Washington, D.C. is predicted to receive the enhanced signal level as

¹ See Paragraph 155, *Report and Order, Third Periodic Review of the Commission’s Rules and Policies Affecting the Conversion To Digital Television*, MB Docket No. 07-91, FCC 07-228, Released December 31, 2007.

Exhibit 45 – Statement A

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required in §73.625(a) of the Commission’s Rules. The proposed facility is predicted to provide interference free service to 7,590,146 persons, which is 104.7 percent of the 7,250,000 persons that are predicted to receive interference free service from the Appendix B facility².

The installed antenna was previously designated as a Dielectric model THP-O-10S-2-R which is non-directional in the horizontal plane and is horizontally polarized with 0.5° of electrical beam tilt has been modified to an elliptically polarized antenna. The modified antenna is comprised of separate horizontally and vertically polarized elements from the existing antenna. Specifically, the lower 12 antenna bays (3 layers) were physically rotated 90°. The associated power divider and feed lines were also replaced to provide the proper phasing.

The horizontally polarized section of the antenna has been designated by the antenna manufacturer as model THP-O4-7/28H-2. This section of the antenna is non-directional in the horizontal plane and is horizontally polarized with 1.4° of electrical beam tilt. The antenna radiation center has shifted slightly. The actual as-built antenna height is provided in the form’s “Tech Box” question 7. The horizontally polarized vertical plane (elevation) pattern is provided in the attached **Exhibit 45-Figure 2**.

The vertically polarized section of the antenna has been designated by the antenna manufacturer as model THP-O4-3/12H-2. This section of the antenna is non-directional in the horizontal plane and is vertically polarized with 3.3° of electrical beam tilt. The antenna radiation center for this section of the antenna is located below that of the horizontal section at 117.0 meters above ground level. The vertically polarized vertical plane (elevation) pattern is provided in the attached **Exhibit 45-Figure 3**.

The proposed ERP is 52 kW, the same as the current operating power under the STA. This power level exceeds the maximum power level for television stations in Zone 1. Therefore, a waiver of Section 73.622(f)(7) of the Rules is hereby respectfully requested on behalf of the applicant.

² See *Memorandum Opinion And Order On Reconsideration of the Seventh Report and Order and Eighth Report And Order, Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, FCC 08-72, Released March 6, 2008

An interference study was performed in accordance with the methods set forth in the Commission's OET Bulletin No 69 ("OET-69"). The results of this study indicate that no new interference in excess of the 0.5% limit established in the Commission's Third Periodic Review³ is caused to affected stations by the WJLA-TV operation except to WGAL⁴ and WHRE⁵. A summary of the study results is provided in the attached **Exhibit 45 - Table I**. Both WGAL and WHRE agreed to accept the predicted interference from WJLA-TV operating at 52 kW ERP as a condition for granting the STA.

A report documenting the field measurements required by the STA has been previously provided to Commission Staff (see BEDSTA-20091117AAG). As shown therein, measurement locations within "clusters" of predicted interference areas were selected. For WHRE, four locations were selected. A map depicting the measurement locations is excerpted from the report and provided herein as **Exhibit 45-Attachment 1**. **Exhibit 45-Attachment 2** provides the results of measurements at these locations. As shown, neither the desired (WHRE) or undesired (WJLA-TV) signals could be measured at locations where interference was predicted to exist. Thus, by measurement, no objectionable interference is caused to WHRE.

Likewise, **Exhibit 45-Attachment 3** is a map depicting the locations where interference from WJLA-TV operating at 52 kW ERP is predicted to WGAL (with WGAL operating at 14.1 kW ERP). **Exhibit 45-Attachment 4** provides a tabulation of the measurement data from the report that shows there is no measureable signal from WGAL at location where coverage is predicted. WGAL currently has an application pending to increase to 32.2 kW ERP, see BPCDT-20100111AER. As shown in **Exhibit 45-Table 1**, predicted interference from WJLA-TV at 52 kW ERP to the proposed WGAL operation at 32.2 kW ERP is significantly reduced.

Measurements made to determine the quality of reception of WJLA-TV were made before and after the increase in power authorized in the STA. **Exhibit 45-Attachment 5** is a

³ See *Report and Order, Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, MB Docket No. 07-91, FCC 07-228, Released December 31, 2007.

⁴ WGAL(TV), Channel 8, Facility ID 53930, Lancaster, PA.

⁵ WHRE(TV), Channel 7, Facility ID 82574, Virginia Beach, VA.

map excepted from the report that shown the locations surveyed. **Exhibit 45-Attachment 6** provides a tabulation of the measurement data demonstrating improvements in coverage as a result of the increase in power for WJLA-TV.

Thus, as demonstrated, with WJLA-TV operating at 52 kW, predicted interference in excess of 0.5% to WHRE and WGAL did not exist. Further, measurement of the WJLA-TV signal before and after the power increase authorized in the STA showed replacement coverage where none previously existed. Since actual interference is not caused to WHRE and WGAL and given the improvement in coverage for WJLA-TV, a waiver of the 0.5% new interference policy is warranted and is respectfully requested on behalf of the applicant.

The proposed WJLA-TV site is located more than 400 km from the nearest points on the Canadian and Mexican borders and does not require international coordination. The nearest FCC monitoring station is at Laurel, MD, at a distance of 32.7 km from the proposed site. The proposed effective radiated power (“ERP”) of 52 kW on Channel 7 is significantly below that of the former, coordinated, 316 kW analog facility previously in operation. At the specified effective radiated power, the proposed WJLA-TV facility is predicted to have a signal level of 6.2 mV/m at the Laurel monitoring station. This signal level is below that specified in Section 73.1030(c)(2) of the Commission’s Rules that would trigger a coordination effort with the monitoring station. The proposed site is also located outside the area specified in §73.1030(a)(1). Thus, notification of the instant proposal to the National Radio Astronomy Observatory at Green Bank, West Virginia, is not required. There are no AM broadcast stations located within 3.2 km from the proposed site according to the Commission’s engineering database.

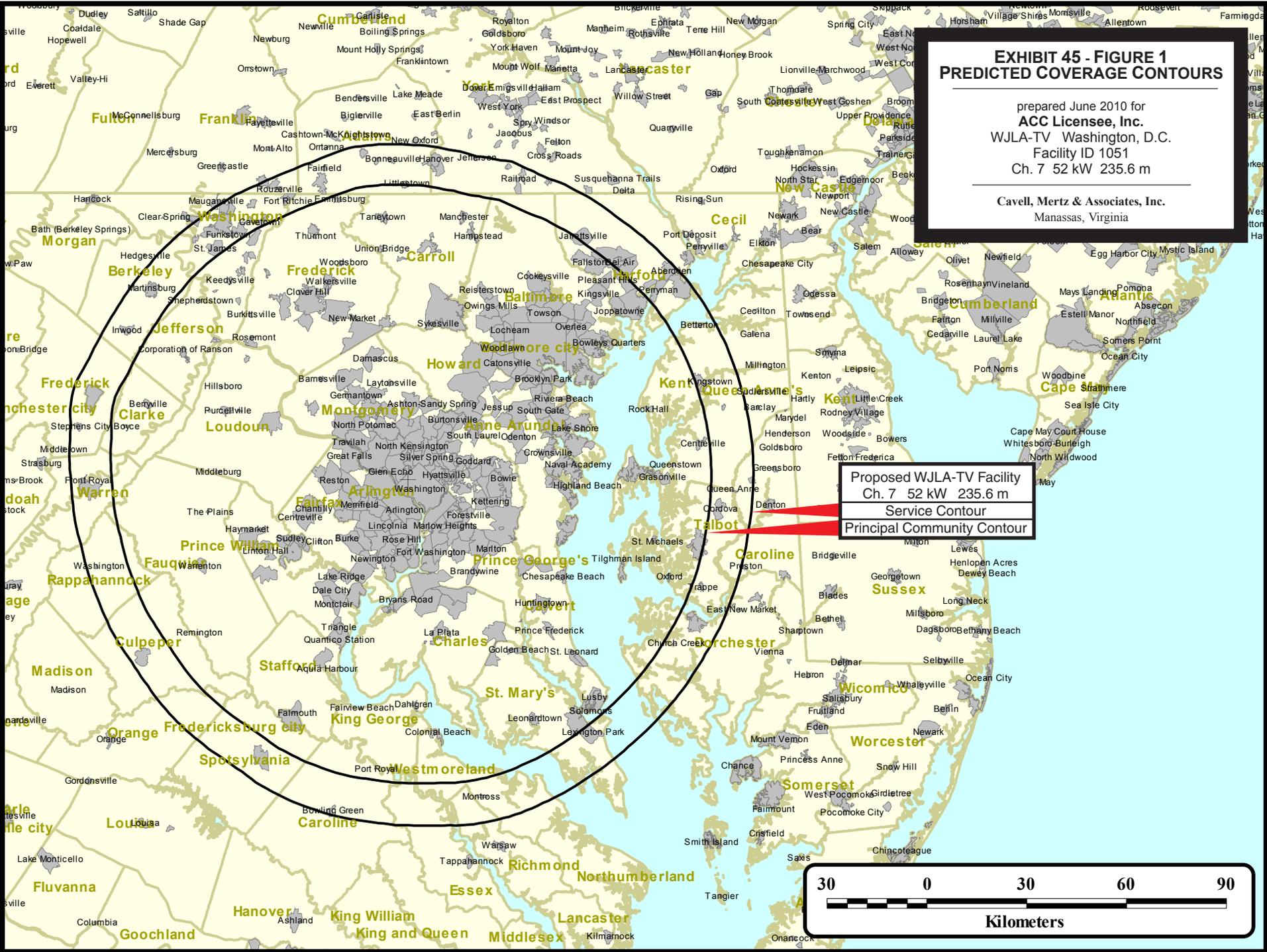
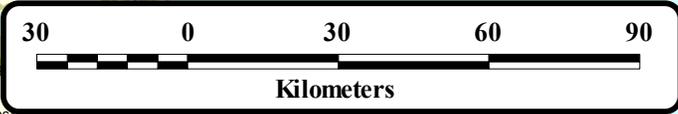
Thus, with the noted exceptions, this proposal is believed to be in compliance with the current Commission’s Rules and policy with respect to allocation matters.

**EXHIBIT 45 - FIGURE 1
PREDICTED COVERAGE CONTOURS**

prepared June 2010 for
ACC Licensee, Inc.
WJLA-TV Washington, D.C.
Facility ID 1051
Ch. 7 52 kW 235.6 m

Cavell, Mertz & Associates, Inc.
Manassas, Virginia

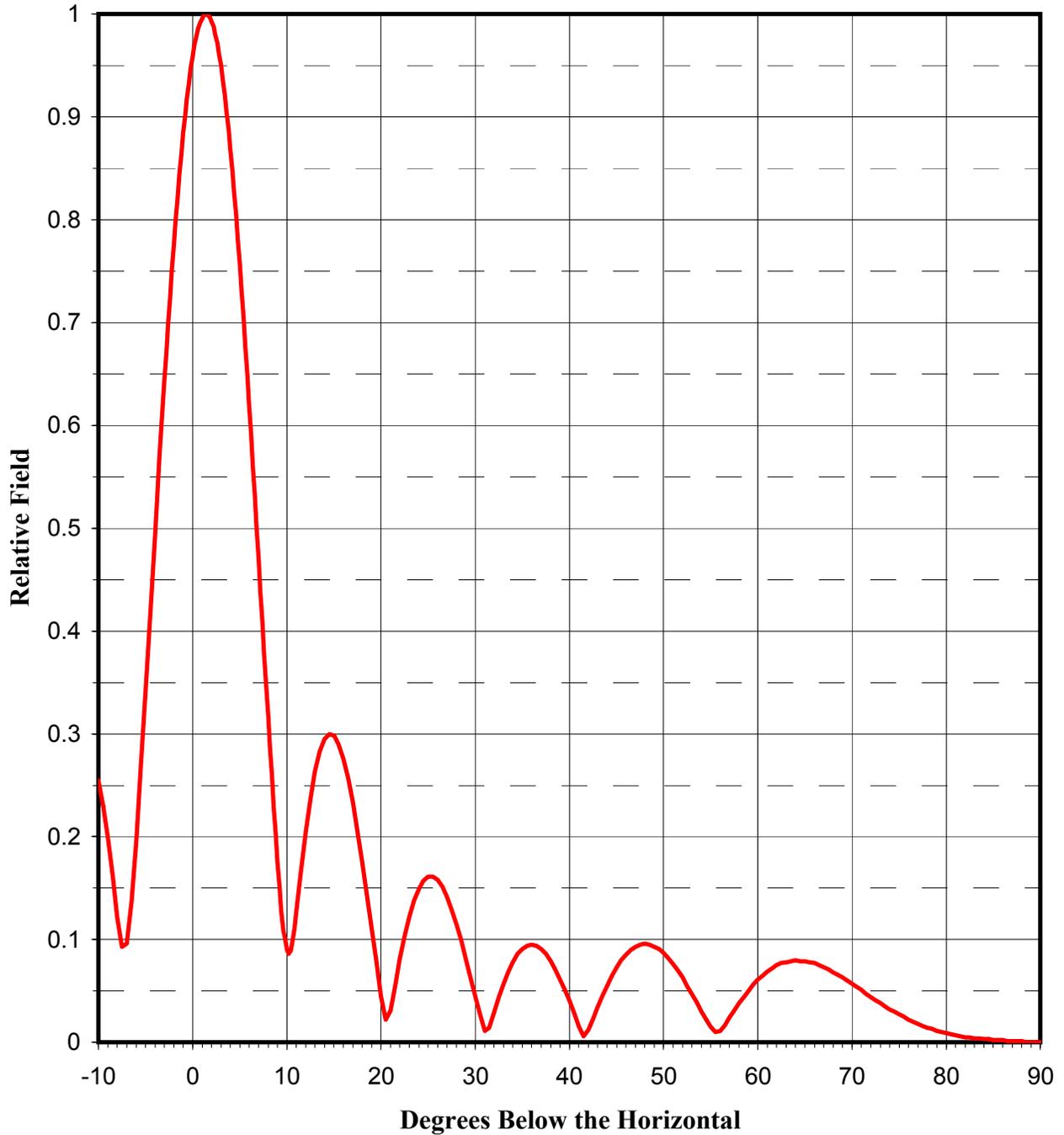
Proposed WJLA-TV Facility
Ch. 7 52 kW 235.6 m
Service Contour
Principal Community Contour



**EXHIBIT 45 - FIGURE 2
HPOL ANTENNA
VERTICAL PLANE (ELEVATION)
RELATIVE FIELD PATTERN**

prepared June 2010 for
ACC Licensee, Inc.
WJLA-TV Washington, D.C.
Facility ID 1051
Ch. 7 52 kW 235.6 m

Cavell, Mertz & Associates, Inc.
Manassas, Virginia



**EXHIBIT 45 - FIGURE 3
VPOL ANTENNA
VERTICAL PLANE (ELEVATION)
RELATIVE FIELD PATTERN**

prepared June 2010 for
ACC Licensee, Inc.
WJLA-TV Washington, D.C.
Facility ID 1051
Ch. 7 52 kW 235.6 m

Cavell, Mertz & Associates, Inc.
Manassas, Virginia

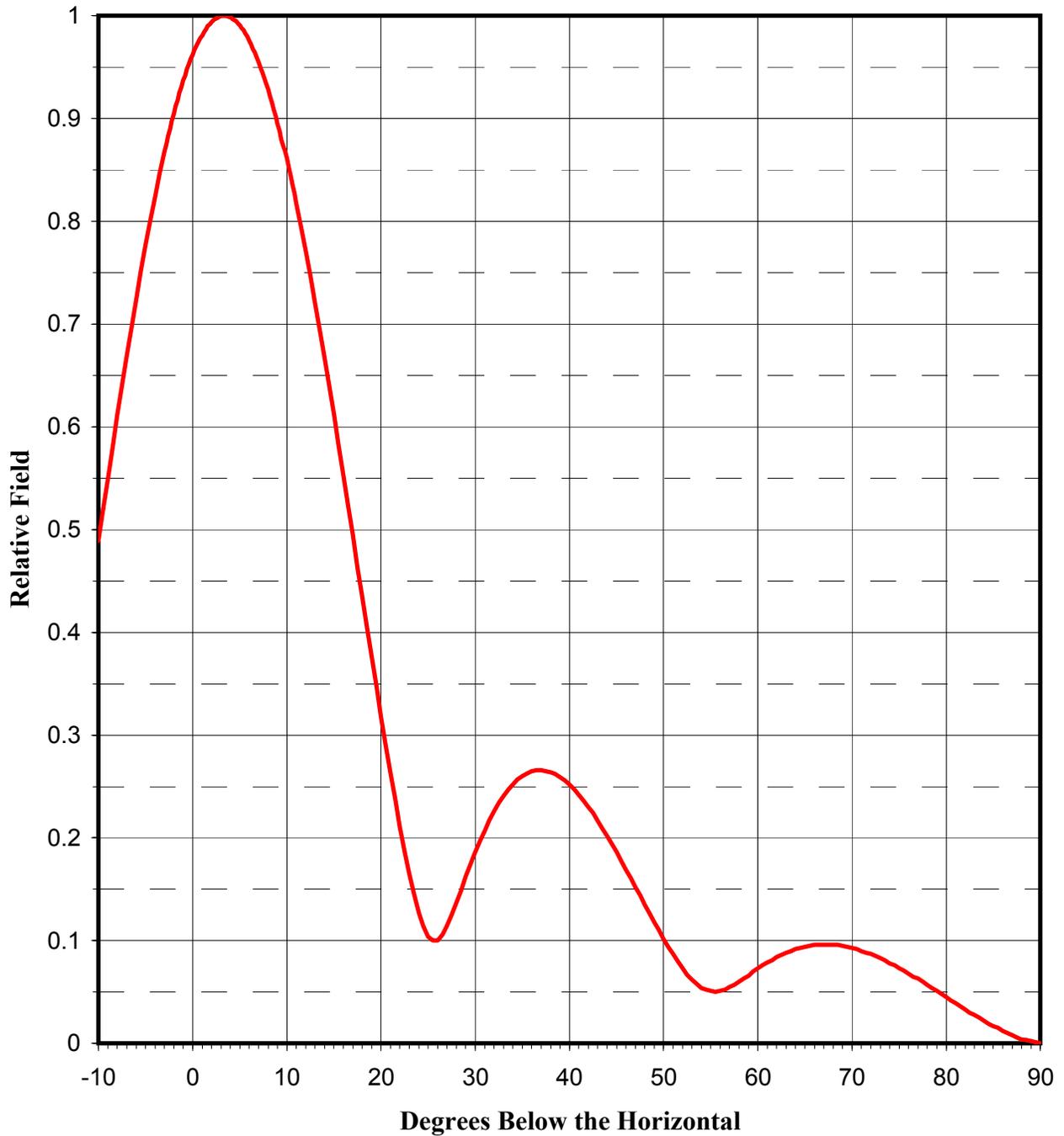


Exhibit 45 - Table I
INTERFERENCE STUDY RESULTS

prepared for
ACC Licensee, Inc.
WJLA-TV Washington, DC
Facility Id: 1051
Ch. 7 52 kW 235.6 m

<u>Channel</u>	<u>Affected Station</u>	<u>City, State</u>	<u>File Number</u>	<u>7th R&O Table Baseline (2000 Census)</u>	<u>Calculated Baseline (2000 Census)</u>	<u>Interference Population without Proposal (2000 Census)</u>	<u>Interference Population with Proposal (2000 Census)</u>	<u>New Interference</u>	
								<u>Population</u>	<u>Percentage</u>
7	WBNG-TV	Binghamton, NY	Reference	1,000,000	996,244	24,173	24,375	202	0.020 %
7	WBNG-TV	Binghamton, NY	BLCDDT-20060329ACH	1,000,000	996,244	24,173	24,375	202	0.020 %
7	WABC-TV	New York, NY	BPCDDT-20080529AJT	19,365,000	19,751,520	212,669	235,262	22,593	0.114 %
7	WABC-TV	New York, NY	Reference	19,365,000	19,374,635	168,715	184,952	16,237	0.084 %
7	WABC-TV	New York, NY	BMPCDDT-20080620AMV	19,365,000	19,866,026	176,866	191,345	14,479	0.073 %
7	WABC-TV	New York, NY	BPCDDT-20090626ABL	19,365,000	20,374,269	152,328	180,434	28,106	0.138 %
7	WNGS(TV)	Springville, NY	BMPCDDT-20100322ABL	1,363,000				---	No Interference ---
7	W07BV(TV)	Wilkes-Barre, Etc., PA	BLTVL-19930202IE					---	No Interference ---
7	W07BV(TV)	Wilkesbarre/Pittston, PA	BDFCDVA-20070607ACJ					---	No Interference ---
7	WHRE(TV)	Virginia Beach, VA	BMPCDDT-20080821ADP	1,714,000	2,022,077	2,288	31,087	28,799	1.424 %
7	WHRE(TV)	Virginia Beach, VA	Reference	1,714,000	1,714,066	935	7,299	6,364	0.371 %
7	WTRF-TV	Wheeling, WV	Reference	2,373,000	2,357,827	18,914	20,190	1,276	0.054 %
7	WTRF-TV	Wheeling, WV	BMPCDDT-20080620ALK	2,373,000	2,530,311	48,459	51,130	2,671	0.106 %
8	WWCP-TV	Johnstown, PA	BMPCDDT-20080620AIX	2,536,000				---	No Interference ---
8	WWCP-TV	Johnstown, PA	Reference	2,536,000				---	No Interference ---
8	WGAL(TV)	Lancaster, PA	BPCDDT-20100111AER	4,088,000	5,704,291	520,575	551,223	30,648	0.537 %
8	WGAL(TV)	Lancaster, PA	Reference	4,088,000	4,051,612	188,970	233,743	44,773	1.105 %
8	WGAL(TV)	Lancaster, PA	BPCDDT-20090710AKB	4,088,000	5,121,313	286,840	386,008	99,168	1.936 %

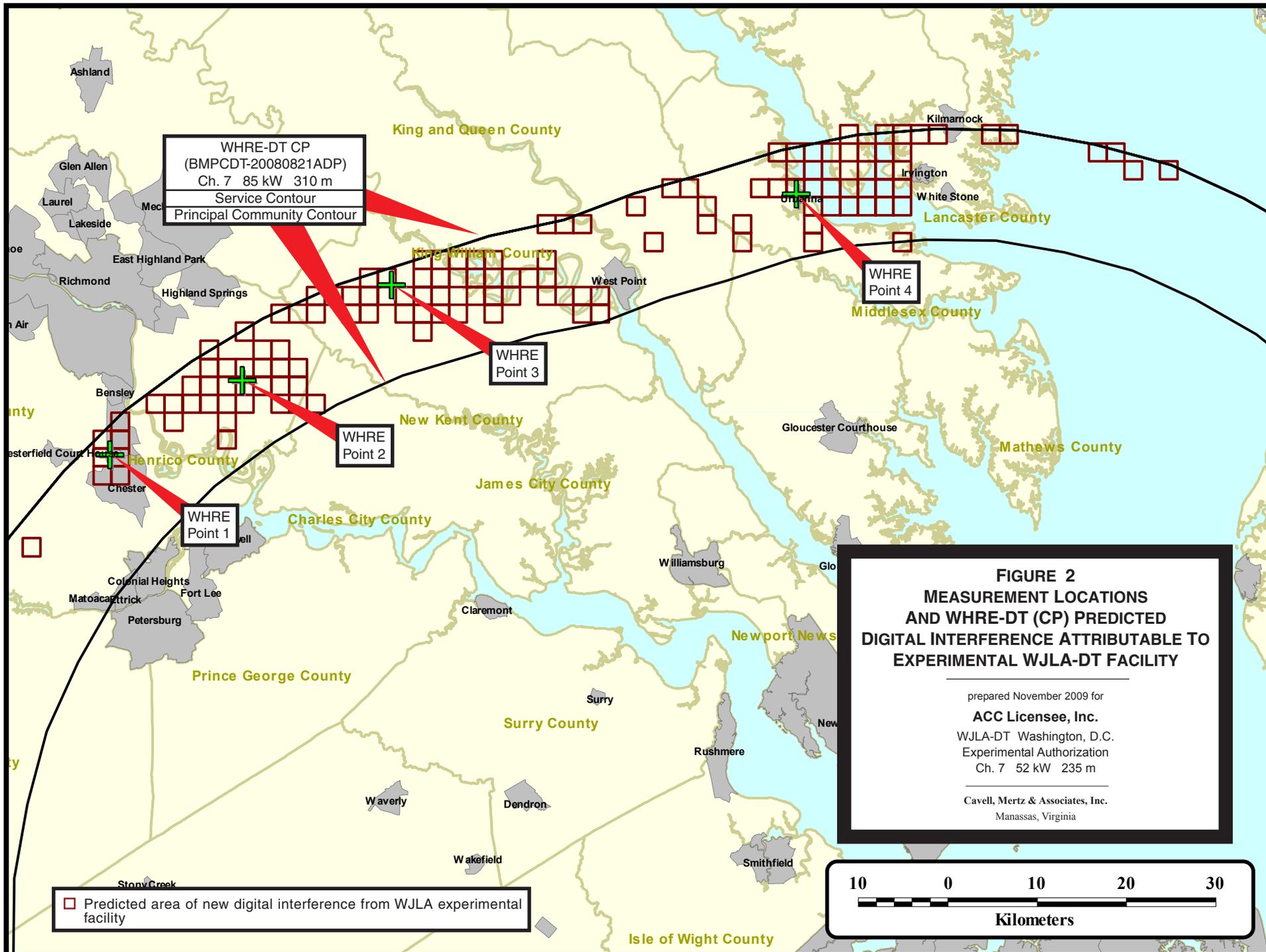


Exhibit 45-Attachment 2

Table I

WJLA TO WHRE INTERFERENCE MEASUREMENT RESULTS

prepared for
ACC Licensee, Inc.
WJLA-TV Washington, D.C.
Experimental Authorization
Ch. 7 52 kW 235 m

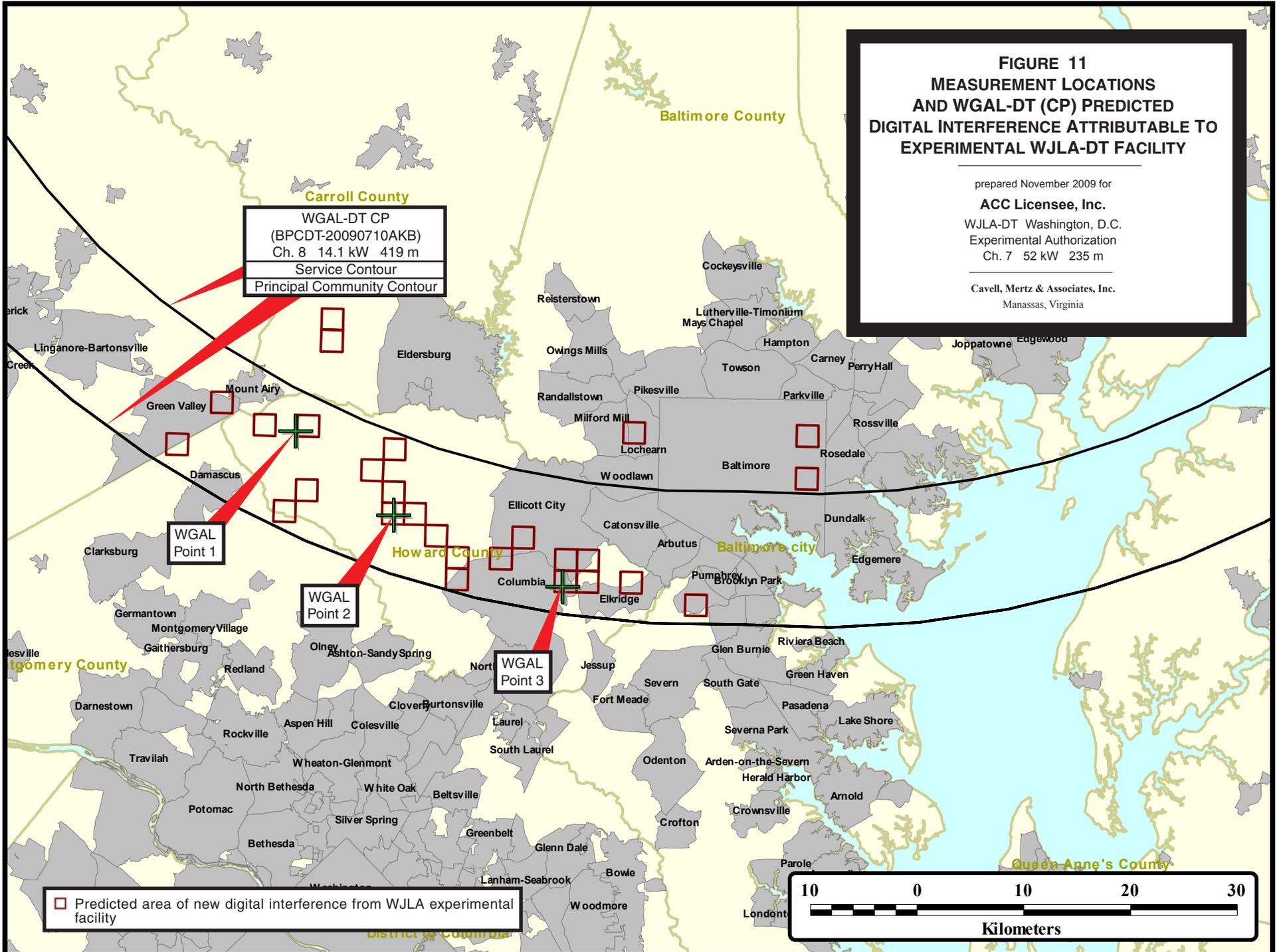
	<u>WHRE Point 1</u>	<u>WHRE Point 2</u>	<u>WHRE Point 3</u>	<u>WHRE Point 4</u>
Date	September 15, 2009	September 15, 2009	September 15, 2009	September 15, 2009
Time	10:25 AM	1:30 PM	3:40 PM	5:40 PM
Address	Cul-de-sac in front of private home 10107 Farm Field Court Chester, Virginia	In street adjacent to 4460 Kara Drive Richmond, Virginia	Cul-de-sac in front of private home 9854 Crumps Mill Road Quinton, Virginia	Cul-de-sac in front of private home 132 Hampsted Road Urbana, Virginia
Latitude (NAD-27)	37° 22' 54.8" N	37° 27' 24.08" N	37° 33' 10.78" N	37° 38' 39.71" N
Longitude (NAD-27)	77° 26' 53.9" W	77° 16' 53.8" W	77° 05' 32.11" W	76° 34' 48.14" W
Site elevation (in feet AMSL from topo map)	141	150	120	20
Antenna elevation (in feet AMSL)	171	180	150	50
Distance to WHRE (in km)	105.4	99.8	97.8	93.0
Azimuth to WHRE (in degrees)	127	136	147.6	175.8
Distance to WJLA (in km)	177.1	166.7	155.0	151.4
Azimuth to WJLA (in degrees)	10.4	6	0.4	343.4
tv_process predicted signal strength (in dBμ)	42.89	40.79	42.95	41.75
WHRE measured signal	--	--	--	--
WJLA at 30 kW measured signal	--	--	--	--
WJLA at 52 kW measured signal	--	--	--	--
WHRE signal observed	--	--	--	--
WJLA at 30 kW observed signal	--	--	--	--
WJLA at 52 kW observed signal	--	--	--	--
Weather	Sun and some clouds	Sun and some clouds	Sun and some clouds	Sun and some high clouds
Temperature (in degrees F)	79	85	85	79

Exhibit 45-Attachment 3

FIGURE 11
MEASUREMENT LOCATIONS
AND WGAL-DT (CP) PREDICTED
DIGITAL INTERFERENCE ATTRIBUTABLE TO
EXPERIMENTAL WJLA-DT FACILITY

prepared November 2009 for
ACC Licensee, Inc.
 WJLA-DT Washington, D.C.
 Experimental Authorization
 Ch. 7 52 kW 235 m

Cavell, Mertz & Associates, Inc.
 Manassas, Virginia



□ Predicted area of new digital interference from WJLA experimental facility

Exhibit 45-Attachment 4

Table II

WJLA TO WGAL INTERFERENCE MEASUREMENT RESULTS

prepared for

ACC Licensee, Inc.

WJLA-TV Washington, D.C.

Experimental Authorization

Ch. 7 52 kW 235 m

	<u>WGAL Point 1</u>	<u>WGAL Point 2</u>	<u>WGAL Point 3</u>
Date	September 16, 2009	September 16, 2009	September 16, 2009
Time	11:30 AM	12:55 PM	3:10PM
Address	St. Michael's Church Parking Lot Corner of St. Michaels and Hardy Rd Mt. Airy, Maryland	Cul-de-sac in front of private home 13870 Kennard Drive Glenelg, Maryland	Cul-de-sac in front of private home 8608 Long Meadow Ct. Columbia, Maryland
Latitude (NAD-27)	39° 20' 19.11" N	39° 16' 11.18" N	39° 12' 52.19" N
Longitude (NAD-27)	77° 06' 21.77" W	76° 59' 50.01" W	76° 48' 43.97" W
Site elevation (in feet AMSL from topo map)	760	620	439
Antenna elevation (in feet AMSL)	790	650	469
Distance to WGAL (in km)	87.8	90.9	92.5
Azimuth to WGAL (in degrees)	28.16	20.73	10.23
Distance to WJLA (in km)	43.17	36.18	37.4
Azimuth to WJLA (in degrees)	176.98	191.36	218.25
tv_process predicted signal strength (in dBμ)	44.38	48.23	48.03
WGAL measured signal	--	--	--
WJLA at 30 kW measured signal	68.49	79.32	74.52
WJLA at 52 kW measured signal	71.49	81.82	76.82
WGAL signal observed	--	--	--
WJLA at 30 kW observed signal	Good	Good	Good
WJLA at 52 kW observed signal	Good	Good	Good
Weather	Cloudy with breaks of sun	Partly cloudy	Cloudy
Temperature (in degrees F)	75	80	80

Exhibit 45-Attachment 5

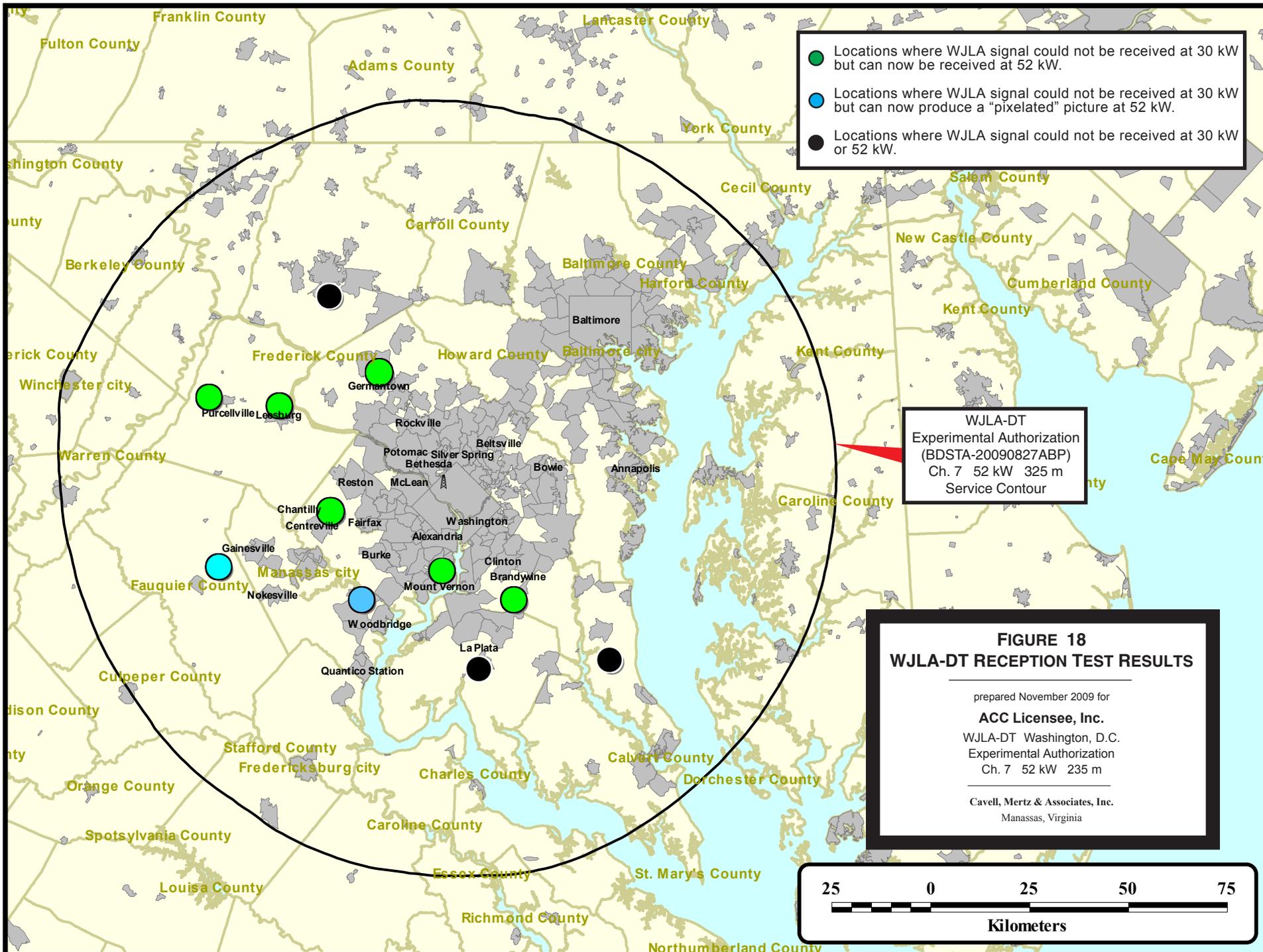


Exhibit 45-Attachment 6

Table III

WJLA-DT RECEPTION TEST RESULTS

prepared for

ACC Licensee, Inc.

WJLA-TV Washington, D.C.

Experimental Authorization

Ch. 7 52 kW 235 m

<u>Location</u>	<u>GPS Coordinates</u>				<u>WJLA</u> <u>At 52 kW ERP</u>	<u>WJLA</u> <u>At 30 kW ERP</u>
	<u>Latitude</u>		<u>Longitude</u>			
	<u>(°)</u>	<u>(min)</u>	<u>(°)</u>	<u>(min)</u>		
Alexandria, VA	38	45.177	77	4.964	Yes	NO
Brandywine, MD	38	41.162	76	52.321	Yes	NO
Chantilly, VA	38	55.015	77	24.372	Yes	NO
Frederick, MD	39	22.546	77	24.657	No	NO
Germantown, MD	39	12.127	77	15.868	Yes	NO
La Plata, MD	38	31.784	76	58.54	No	NO
Leesburg, VA	39	7.588	77	33.425	Yes	NO
Round Hill, VA	39	8.706	77	45.789	Yes	NO
St Leonard, MD	38	32.894	76	35.479	No	NO
Warrenton, VA	38	45.642	77	44.043	Yes-Pixelating	NO
Woodbridge, VA.	38	41.162	77	18.98	Yes-Pixelating	NO