

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
	)	
Advanced Television Systems	)	MB Docket No. 87-268
and Their Impact upon the	)	
Existing Television Broadcast	)	
Service	)	
	)	

To: The Commission

**SUPPLEMENT TO PETITION FOR RECONSIDERATION  
OF ALLBRITTON COMMUNICATIONS COMPANY AND GANNETT CO., INC.**

Allbritton Communications Company (“Allbritton”) hereby supplements the Joint Petition for Reconsideration (“Petition”) it filed with Gannett Co., Inc. (“Gannett”) in the above-referenced proceeding on October 10, 2007. In the Petition, Allbritton and Gannett sought permission to change the post-transition service area certifications of WJLA-DT and WUSA-DT, their respective Washington, D.C. stations, from maximization to replication so that the stations could use their shared analog channel 7/9 antenna for post-transition DTV operations without a significant loss in service. The parties noted that without a change in the certified DTV facilities of WJLA and WUSA, the stations would be forced to reduce significantly their post-transition DTV operating power levels because their theoretical DTV allotment antenna patterns, which cannot be built today, did not match the pattern of the existing antenna. As a result, the power levels at both stations would drop to keep their post-transition coverage areas using the existing analog antenna inside the service area of the theoretical allotment.

Attached hereto is an engineering statement (“Stmt”) that illustrates and quantifies WJLA-DT’s coverage losses that will occur without a change in certified facilities. Specifically, the statement confirms that without the requested change in the certified facilities of WJLA-DT, Allbritton will be forced to reduce WJLA-DT’s ERP to 3.8 kW resulting in a loss of DTV service to over 265,000 people that currently receive analog service from WJLA. Stmt at 1-2. The map at Figure 1 compares WJLA’s analog coverage area with (i) its theoretical digital allotment service area and (ii) the reduced-power, 3.8 kW ERP operation that WJLA would be forced to run to keep its actual DTV service area using the analog antenna inside the coverage area of the allotment. The map at Figure 2 compares the coverage of a proposed post-transition, DTV replication allotment for WJLA using a non-directional antenna that produces a service area virtually identical to WJLA’s existing analog service area. Because the Commission’s *Third Periodic DTV NPRM* repeatedly recognizes the importance of ensuring that today’s analog viewers receive digital service after February 17, 2009, Allbritton submits that the joint request to change the post-transition DTV service area certifications of WJLA and WUSA from maximization to replication is in the public interest and should be granted.

Respectfully submitted,

ALLBRITTON COMMUNICATIONS  
COMPANY

/s/ Jerald N. Fritz /s/  
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Dated: October 26, 2007

**ENGINEERING STATEMENT SUPPORTING A  
PETITION FOR RECONSIDERATION**

prepared for

**ACC Licensee, Inc.**

WJLA-DT Washington, D.C.

Facility ID: 1051

Ch. 7 14.6 kW (MAX-DA) 235 m

ACC Licensee, Inc. (“ACC”) is the licensee of analog television station WJLA-TV Channel 7 and digital station WJLA-DT Channel 39, Facility ID: 1051, Washington, D.C.. WJLA-TV elected for its post-transition facility to operate on its current analog channel in place of the 1998 allotted Channel 39. However, as a result of the channel election process, the actual coverage “foot-print” and population served by WJLA will be reduced from what it presently serves. Further, WJLA-TV Channel 7 currently operates using a non-directional antenna system. The final antenna pattern allotted by the Commission cannot be easily constructed with a real-world antenna. Using the existing non-directional antenna system forces WJLA to operate with a further reduction in power resulting in serious loss of coverage.

The instant engineering statement has been prepared to support a request for a change in the station’s “certification” to permit replication of the authorized analog Grade B contour and to provide a practical implementation using station’s existing non-directional Channel 7 antenna.

**Change in Certification**

With the release of the final table of allotments<sup>1</sup>, WJLA was allotted a directional antenna pattern that cannot be practically implemented using the existing Channel 7 antenna<sup>2</sup>. **Figure 1** provides a coverage comparison of the analog Channel 7 Grade B contour along with the allotted Channel 7 DTV service contour with its associated directional antenna pattern. As shown, coverage in certain areas is lost. Specifically, 110,660 persons will lose coverage (a loss of 915.2 sq. km) if the Channel 7 allotment facility was fully constructed as specified. Further, since the Commission has proposed to require stations to construct their final DTV facilities so as not to exceed the allotted coverage, a map showing the resulting non-directional 3.8 kW implementation of the final Channel 7 DTV facility is also provided. **Table I** provides a comparison of the population and area data. As shown, using a real-world non-directional

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<sup>1</sup> See Appendix B, “*Seventh Report and Order And Eighth Further Notice of Proposed Rule Making*”, MB Docket No. 87-268, FCC 07-138, Released August 6, 2007.

<sup>2</sup> The existing Channel 7 antenna was installed in 1998 at the same time as the *early adopted* UHF DTV antennas.

antenna at 3.8 kW there is a severe loss in coverage (a loss of 265,852 persons and 3,349.6 sq. km) and service to the public. Therefore, ACC proposes herein to modify its original certification to specify the authorized analog Grade B contour as the “carry-over” coverage footprint for its final Channel 7 DTV facility.

In the same manner as has been previously employed, a Channel 7 digital facility was designed, with an associated directional antenna pattern, that replicates the coverage of the Grade B contour filling in coverage in those areas where the original Channel 39 allotment could not due to the power cap. The technical details of the proposed facility are provided in **Table II**.

**Figure 2** provides a coverage comparison of the authorized analog Grade B contour with the proposed and allotted digital facilities. Also shown, is the coverage from a non-directional antenna implementation of the proposed allotment. As demonstrated in **Figure 2** and in **Table I**, the proposed change in certification allows for replication of the currently authorized analog coverage footprint. As shown, a non-directional implementation of the proposed certification easily achieves replication of the current analog Grade B coverage.

For completeness, 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-Rice Methodology for Evaluating TV Coverage and Interference*, July 2, 1997 (“OET-69”)<sup>3</sup>. The interference study examined the net change in interference as experienced by other stations that would result from the proposed facility (in lieu of the reference WJLA-DT allotted facility). Only facilities listed in Appendix B of the Seventh Report and Order were studied. As shown in **Table III**, interference to pertinent affected stations is below the 0.1% “new” interference limit.

## **Conclusion**

As demonstrated above, coverage for the WJLA-DT “post-transition” operation will be severely limited if the currently allotted DTV facility is employed. By changing the WJLA-DT certification to replicate the authorized Grade B contour, coverage by the Channel 7 DTV facility

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<sup>3</sup> The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard cell size of 2 km was used. Comparisons of various results of this computer program to the Commission’s implementation of OET-69 show good correlation.

Engineering Statement

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closely replicates current analog Channel 7 coverage and maintains service to the public. Further, the proposed DTV facility can be easily implemented with the existing installed Channel 7 antenna so that the analog shutdown deadline of February 17, 2009 can be met.

**Certification**

The undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief. Mr. Mertz is a principal in the firm of *Cavell, Mertz & Associates, Inc.*, holds a Bachelor of Science degree from Oglethorpe University, and has submitted numerous engineering exhibits to the Federal Communications Commission. His qualifications are a matter of record with that agency.



Richard H. Mertz  
October 25, 2007

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**Attachments**

Table I	Population Comparison to 1998 Digital Table of Allotments
Table II	Proposed Allotment Parameters
Table III	Interference Study Summary
Figure 1	Coverage Contour Comparison – Ch. 7 Analog Grade B Contour Ch 7 R&O Allotment Service Contour Non-directional Implementation within the 7 <sup>th</sup> R&O Service Contour
Figure 2	Coverage Contour Comparison – Ch. 7 Analog Grade B Contour Proposed Ch. 7 Allotment Service Contour Non-directional Implementation Within Proposed Allotment Service Contour 7 <sup>th</sup> R&O Allotment Service Contour

**Table I**  
**POPULATION COMPARISON TO 1998 DIGITAL TABLE OF ALLOTMENTS**

prepare for  
**ACC Licensee, Inc.**  
WJLA-DT Washington, D.C.  
Ch. 7 14.6 kW (MAX-DA) 235 m

	(a) DTV Ch. 39	(b) NTSC Ch. 7	(c) NTSC Ch. 7	(d) NTSC Ch. 7	(e) DTV Ch. 7	(f) DTV Ch. 7	(g) DTV Ch. 7	(h) DTV Ch. 7
	1998 Table Facility (1990 Census)	1998 Table Facility (1990 Census)	1998 Table Facility Calculated (1990 Census)	1998 Table Facility Calculated (2000 Census)	7th R&O Table (2000 Census)	Replication of 1998 Table Analog Facility (2000 Census)	Proposed 11.92 kW - Calculated (2000 Census)	Non-directional implementation of 7th R&O facility (2000 Census)
<b>Population</b>	6,004,000	6,365,000	6,364,546	7,175,660	7,065,000	7,249,361	7,230,320	6,909,808
% difference from NTSC 1998 Table Facility	-5.67%		-0.01%					
difference from column "d" facility					-110,660	73,701	54,660	-265,852
% difference from column "d" facility					-1.54%	1.03%	0.76%	8.57%
<b>Area</b>	23,331.0	23,215.0	23,215.2	23,211.2	22,296.0	24,235.7	24,026.5	19,861.6
% difference from NTSC 1998 Table Facility	0.50%		0.00%	-0.02%				
difference from column "d" facility					-915.2	1,024.5	815.3	-3,349.6
% difference from column "d" facility					-3.94%	4.41%	3.51%	-14.45%

Comparison - studied facility to 1998 NTSC Table Facility  
Same study parameters as "c" only change is use of 2000 Census data.  
Data from 7th R&O Table. (15 kW at 254 m with FCC allotment antenna pattern)  
14.6215 kW at 235 m with odd shaped directional pattern  
Non-directional Implementation of proposed allotment change  
3.8 kW at 235m using non-directional VHF antenna

<b>Notes:</b>	<b>Column</b>
a	From 1998 Table
b	From 1998 Table
c	1998 Table NTSC facility study using tv_process software
d	Facility study same as "c" except using 2000 Census data.
e	7th R&O Table facility on Ch. 7 (Based on top mounted UHF antenna)
f	Replication of 1998 analog facility on Ch. 7 - Does not cause 0.1% additional interference to affected stations
g	Non-directional antenna implementation of proposed Ch. 7 allotment
h	Non-directional antenna implementation of 7th R&O Facility

Table II  
**PROPOSED ALLOTMENT PARAMETERS**  
 prepared for  
**ACC Licensee, Inc.**  
 WJLA-DT Washington, D.C.  
 Ch. 7 14.6 kW (MAX-DA) 235 m

Channel	DTV Channel 7
Site Coordinates	38° 57' 01" N 77° 04' 47" W (NAD-27)
Radiation Center	308 meters above mean sea level 235 meters above average terrain
Effective Radiated Power	14.6 kilowatts

**Directional Antenna Relative Field Pattern**

<u>Azimuth</u> (°T)	<u>Relative</u> <u>Field</u>	<u>Azimuth</u> (°T)	<u>Relative</u> <u>Field</u>
0	0.908	180	0.950
10	0.904	190	0.939
20	0.906	200	0.926
30	0.907	210	0.913
40	0.910	220	0.911
50	0.918	230	0.909
60	0.935	240	0.908
70	0.949	250	0.909
80	0.958	260	0.910
90	0.959	270	0.915
100	0.954	280	0.930
110	0.963	290	0.924
120	0.961	300	0.914
130	0.969	310	0.910
140	0.972	320	0.908
150	0.988	330	0.905
160	1.000	340	0.903
170	0.993	350	0.911

Table III  
**INTERFERENCE STUDY SUMMARY**

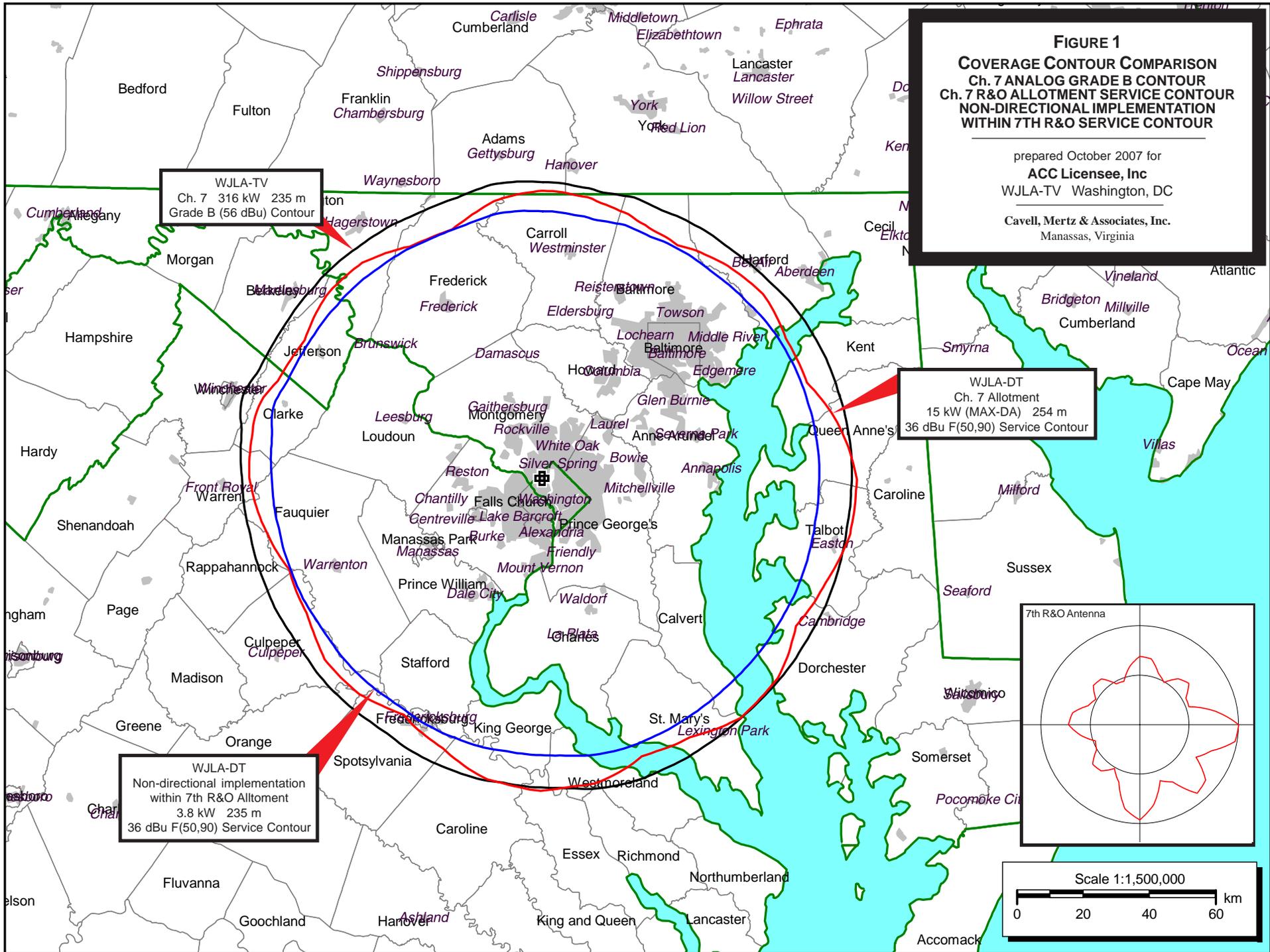
prepared for

**ACC Licensee, Inc.**

WJLA-DT Washington, D.C.

Ch. 7 14.6 kW (MAX-DA) 235 m

<u>Channel</u>	<u>Affected Station</u>	<u>City</u>	<u>State</u>	<u>7th R&amp;O Table Baseline (2000 Census)</u>	<u>Calculated Baseline (2000 Census)</u>	<u>Interference Population 7th R&amp;O facility (2000 Census)</u>	<u>Interference Population with Proposal (2000 Census)</u>	<u>Population Difference</u>	<u>New Interference</u>
7	WBNG-TV	Binghamton	NY	1,001,000	1,001,558	18,859	18,881	22	0.0022%
7	WABC-TV	New York	NY	19,366,000	19,366,803	176,547	178,255	1,708	0.0088%
7	WHRE(TV)	Virginia Beach	VA	1,714,000	1,714,006	935	935	0	0.0000%
7	WTRF-TV	Wheeling	WV	2,373,000	2,373,911	2,830	2,830	0	0.0000%
8	WWCP-TV	Johnstown	PA	2,534,000		- - -No interference - - -			
8	WGAL(TV)	Lancaster	PA	3,313,000	3,313,601	86,016	86,446	430	0.0130%



**FIGURE 1**  
**COVERAGE CONTOUR COMPARISON**  
**Ch. 7 ANALOG GRADE B CONTOUR**  
**Ch. 7 R&O ALLOTMENT SERVICE CONTOUR**  
**NON-DIRECTIONAL IMPLEMENTATION**  
**WITHIN 7TH R&O SERVICE CONTOUR**

prepared October 2007 for  
**ACC Licensee, Inc**  
WJLA-TV Washington, DC

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

WJLA-TV  
Ch. 7 316 kW 235 m  
Grade B (56 dBu) Contour

WJLA-DT  
Ch. 7 Allotment  
15 kW (MAX-DA) 254 m  
36 dBu F(50,90) Service Contour

WJLA-DT  
Non-directional implementation  
within 7th R&O Allotment  
3.8 kW 235 m  
36 dBu F(50,90) Service Contour

