EXHIBIT A

TECHNICAL EXHIBIT
TECHNICAL SERVICE AREA
WACP 10 KW-ND 256M HAAT CH.4
ATLANTIC CITY, NEW JERSEY

INTRODUCTION

The office of the undersigned was retained by Western Pacific Broadcast LLC to delineate the technical service area of commercial digital television (DTV) station WACP, Channel 4, Atlantic City, NJ, Facility ID 189358 and to comment on the report prepared by Meintel, Sgrignoli, & Wallace ("MSW Report").[1] The MSW Report found that the principal headend of cable operator, Armstrong Utilities, Inc., is not located within the noise-limited contour of WACP and over-the-air reception of WACP's signal at the headend location was not possible primarily due to upper adjacent-channel interference from nearby land-mobile stations. This exhibit demonstrates that (1) the cable headend location at Oxford, PA is *in fact* within the noise-limited contour of WACP and (2) there is every reason to believe that the land-mobile interference issue can be resolved.

NOISE-LIMITED SERVICE CONTOUR

As a DTV station, WACP's service area is defined by the noise-limited service contour where its signal strength is predicted to exceed the noise-limited service level.[2] For VHF stations that operate on Channels 2 – 6 the noise-limited level is 28 dBu.[3] A map

[1] *See* Petition for Special Relief filed by Armstrong Utilities, Inc., September 26, 2013 ("Armstrong Petition"), Exhibit 4, Meintel, Sgrignolie & Wallace, Evaluation of WACP DTV Channel 4 Service Contour and Signal Issues ("MSW Report").

[2] The Commission treats a digital station's noise-limited service contour as the functional equivalent of an analog station's Grade B contour. *See Report To Congress: The Satellite Home Viewer Extension and Reauthorization Act of 2004; Study of Digital Television Field Strength Standards and Testing Procedures*, 20 FCC Rcd 19504, 19507 ¶ 3 (2005).

[3] *See* 47 C.F.R. § 73.622(e).

of WACP's service area as determined using the standard prediction method and the station's licensed facilities in BLCDT-20120621ABY is shown in Figure 1.[4] This map further demonstrates that the Oxford headend is indeed located within WACP's noise-limited service area.

The MSW Report states that "the antenna employed by WACP-DT does not exhibit a completely omnidirectional azimuth pattern" and "when the actual WACP-DT pattern and ERP are factored in, the WACP-DT noise-limited 28 dBu contour does not encompass the Oxford headend or service area." This is not the case as shown in Figure 1. While the intent of the MSW Report was to provide a more accurate determination of WACP's contour based on the station's azimuth pattern, the end result understated WACP's contour by approximately 7 kilometers in the direction of the headend as depicted on Figure 2. This is primarily because the MSW Report relies on an azimuth pattern that does not exhibit the same pattern characteristics as the transmitting antenna employed by WACP, Jampro Model JHD-LV2-3/3 (18) SR.[5] A copy of the antenna manufacturer's theoretical calculated pattern for the installed antenna is attached as Figure 3. A comparison between the actual azimuth pattern and the one referenced in the MSW Report is shown in Figures 3A and 3B. The FCC considers +/- 2 dB circularity a routine specification for VHF nondirectional patterns.[6] The pattern data listed in Figure 4 exhibits no variations in excess +/- 2 dB and therefore the assertion that WACP's pattern does not exhibit a completely omnidirectional azimuth pattern is baseless.

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[4] *See* 47 C.F.R. § 73.625(b).

[5] *See* MSW Report, Appendix 1 - Manufacturer's Antenna Data / Model JHD-LV2-X/3 (X), Pages 17 - 19. This antenna data reflects a preliminary pattern based on normal LV2 dipoles. The manufacturer calculated pattern for WACP's antenna, Model JHD-LV2-3/3 (18) SR, is based on swept back dipoles.

[6] *See An Inquiry Into the Commission's Policies and Rules Regarding AM Radio Service Directional Antenna Performance Verification,* 28 FCC Rcd 12555, 12560 Footnote 29 (2013). A nondirectional antenna produces a circular radiation pattern, i.e., the same radiation value in every direction from the antenna. The +/-2 dB circularity is a routine specification for VHF and UHF nondirectional patterns.

An azimuth pattern that exhibits non-circularity exceeding +/- 2 dB is generally specified as being directional. WACP's antenna was treated as a directional in the MSW Report. In that respect, the variation in peak gain is a factor in determining coverage for a station that employs a directional antenna. Figure 4 lists the gain in the direction of the Oxford headend at 272.5° as being 4.44 dB. Since WACP's license reflects an antenna input power of 5.3 dBk (3.39 kW), ERP in the direction of the headend is 9.74 dBk (9.42 kW). This results in a distance to the 28 dBu contour of 101.4 km. The MSW Report points out that the distance to the headend is 100.59 km, hence the headend falls within the contour even when the azimuth pattern is used. The map of Figure 5 illustrates that whether coverage is determined based on a nondirectional radiation pattern, as it should be, or by factoring in the actual azimuth pattern, the variation in the noise-limited service contour is essentially de minimis. The expanded scale map of Figure 6 depicts the noise-limited coverage of the communities named in the Armstrong Petition based on a nondirectional radiation pattern, WACP's actual azimuth pattern, and the pattern used in the MSW Report.

LONGLEY-RICE FIELD STRENGTH

The MSW Report indicates that WACP's field strength at the Oxford headend location was calculated to be 25.1 dBu using the Longley-Rice (LR) propagation methodology.[7] Once again the MSW Report relies on the wrong azimuth pattern and therefore WACP's ERP is understated to be 4.64 kW (6.67 dBk) in the direction towards the headend. As described above, ERP is 9.42 kW (9.74 dBk) in that direction based on the WACP azimuth pattern. Since the computed LR path losses are a fixed amount, the LR signal strength specified in the MSW Report can be adjusted by the difference in ERP (9.74 – 6.67 = 3.07 dB). Therefore, the correct LR signal is 25.1 + 3.1 = 28.2 dBu. When assuming a nondirectional radiation pattern and 10 kW ERP (10 dBk), the LR signal value is 28.4 dBu. In either case, the LR predicted signal strength exceeds the noise-

[7] *See* MSW Report, Appendix 1 - Point to Point Terrain Path Profile.

limited service level. Figure 7 shows a map of the locations where the LR signal strength exceeds the noise-limited service level using the FCC OET-69 method.

LAND-MOBLIE INTERFERENCE

The other objective described in the MSW Report entailed testing WACP's signal and evaluating possible sources of interference. Two tests were conducted, one using a log-period receive antenna mounted at 90 ft. above ground level (AGL) and another using a dipole antenna mounted at 30 ft. AGL on the pneumatic mast of a test van.[8] The MSW Report summarized the results of the two tests as not being able to receive the WACP signal. While the MSW Report does not reflect measured signal values that are below the standard performance threshold of the headend receiver, it notes the lack of reception was likely due to the existence of a very strong interfering signal on an upper adjacent land-mobile channel. The MSW Report identifies two land-mobile stations that are in close proximity to the headend, namely WNUG340 and KGA589.

Land-mobile stations WNUG340 and KGA589 are co-owned and transmit on 72.06 MHz from a common fixed location approximately 10 kilometers from the headend. The MSW Report states that the interfering upper adjacent-channel carrier is approximately 35 dB above the desired DTV carrier and due to the very narrow spacing between the frequencies, the WACP signal is severely impaired and it is not likely that the interference can be resolved. However, KGA589 and WNUG340 are governed under Parts 22 and 90, respectively, and are authorized to operate on a secondary, noninterference, basis with respect to full-service television stations transmitting on Channels 4 and 5. Accordingly, the aforementioned land-mobile stations are obligated to eliminate any actual interference caused to the reception of WACP.

[8] Although the MSW report provides the antenna gain and line loss for the 90 ft. AGL test and the antenna factor and net gain for the 30 ft. AGL test, it does not provide the calculations used to determine the field strength values in dBuV/m based on the antenna factor and measured voltage. *See* MSW Report, Field Test Results, Table 1 Reception Data – WACP-DT Channel 4. Therefore, the calculated field strength values for both tests cannot be verified.

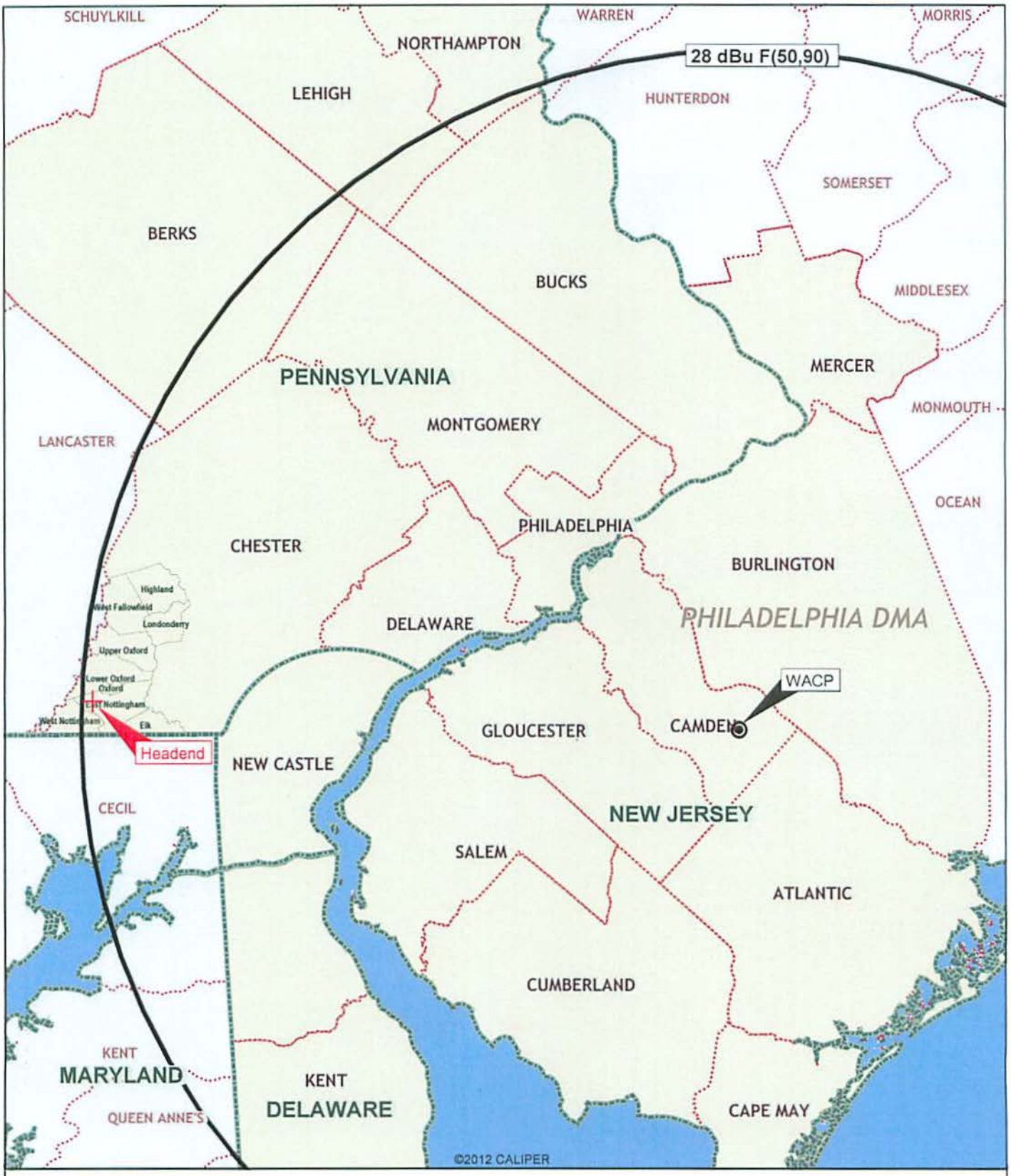
CONCLUSION

The cable system headend and the communities named in the Armstrong Petition are within WACP's technical service area. With regard to land-mobile interference, assignments in the 72-76 MHz band are not permit to cause interference to WACP.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on November 11, 2013.

Respectfully submitted,

Scott Turpie
Technical Consultant
P.O. Box 881
Silver Spring, MD 20918-0881
Ph. 301-776-4488



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P.O. Box 881 Silver Spring, Maryland 20918-0881

Scale
5 0 5 10 15 20
Kilometers

FIGURE 1
WACP NOISE-LIMITED CONTOUR AND ARMSTRONG COMMUNITY MAP
CHANNEL 4 ATLANTIC CITY, NJ
10 KW-ND ERP 256 M HAAT
BLCDT-20120621ABY

November 2013

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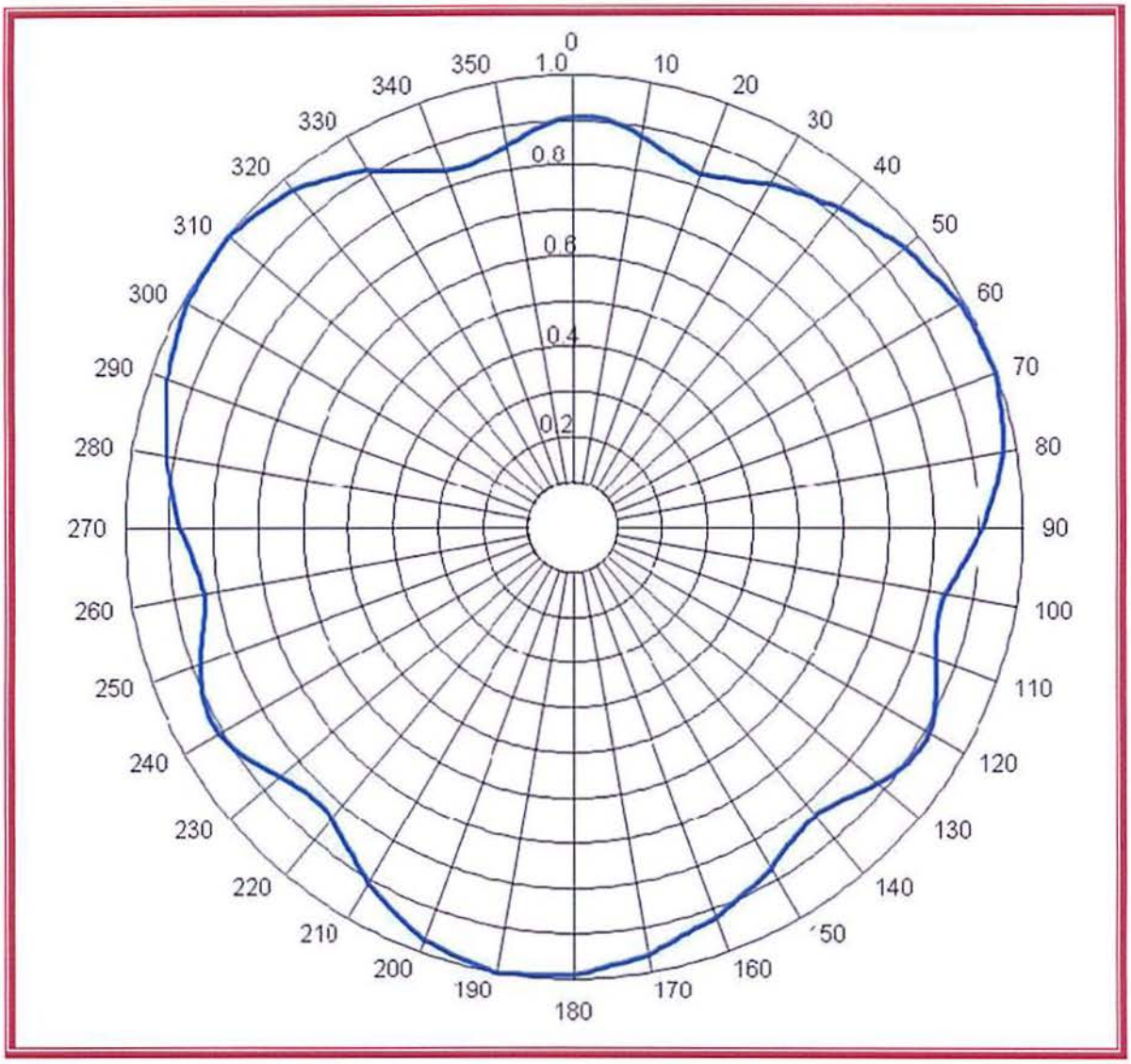
Scale
10 0 10 20 30 40
Kilometers

FIGURE 2
LICENSED ND FACILITY VS. MSW REPORT
WACP 10 KW 256 M HAAT CH. 4
ATLANTIC CITY, NEW JERSEY

WESTERN PACIFIC BROADCAST LLC
BLCDT-20120621ABY
November 2013

JAMPRO ANTENNAS, INC.
6340 Sky Creek Drive, Sacramento, California 95828
P.O. Box 292880, Sacramento, California 95829-2880
(916) 383-1177 FAX (916) 383-1182

AZIMUTH PATTERN



JHD-LV2-3/3 (18) SR Serial # 16731-A FIGURE 3

FIGURE 3A
ACTUAL ANTENNA VS. MSW REPORT
WACP 10 KW 256 M HAAT CH. 4
ATLANTIC CITY, NEW JERSEY

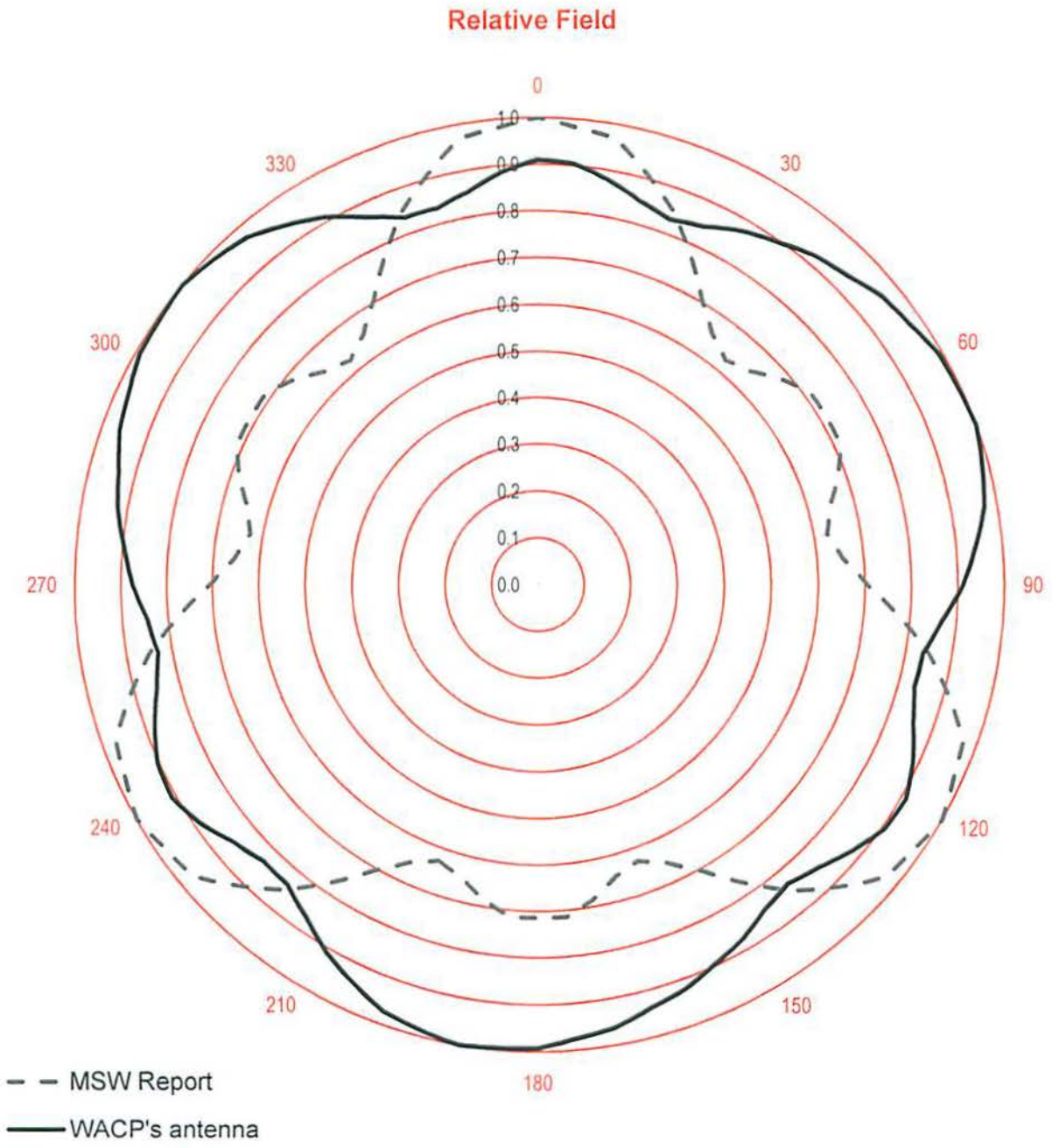


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FIGURE 3B
ACTUAL ANTENNA VS. MSW REPORT
WACP 10 KW 256 M HAAT CH. 4
ATLANTIC CITY, NEW JERSEY

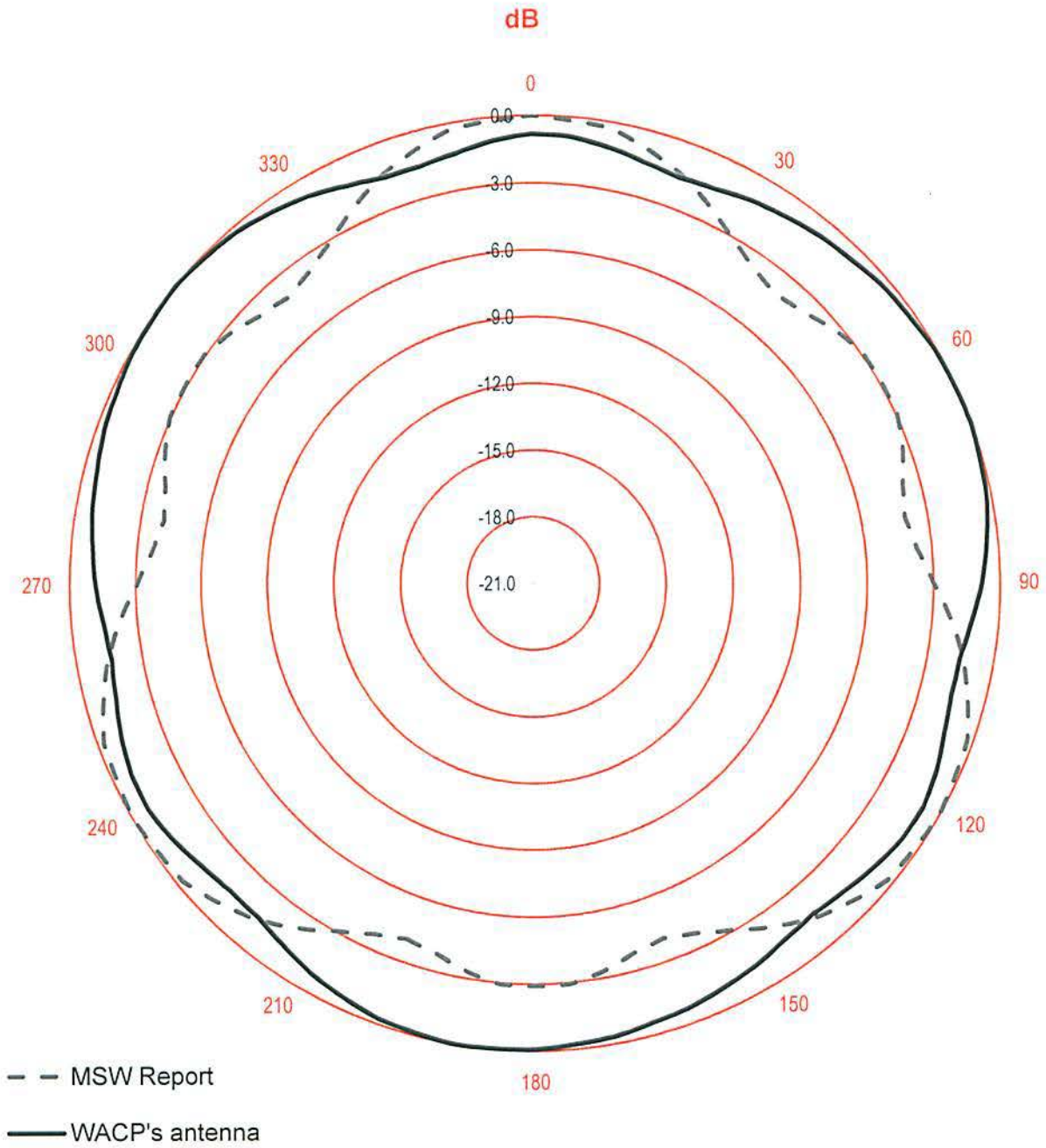

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FIGURE 4

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P.O. Box 881
Silver Spring, MD 20918-0881
Ph. (301)776-4488
Fax (301)776-4499

Antenna Make: Jampro
Antenna Model: JHD-LV2-3/3 (18) SR

ELECTRICAL SPECIFICATIONS	Ratio	dB
RMS Gain at Main Lobe over Halfwave Dipole:	3.0	4.7
Peak Azimuth Gain over Halfwave Dipole:	1.2	0.8
Peak Gain over Halfwave Dipole:	3.6	5.5
Variation in Circularity:		+/- 1.6

Azimuth (Degrees)	Relative Field	Relative dB	Gain (dBd)
0	0.910	-0.82	4.68
5	0.905	-0.84	4.66
10	0.880	-1.05	4.45
15	0.851	-1.34	4.16
20	0.832	-1.58	3.92
25	0.846	-1.49	4.01
30	0.875	-1.23	4.27
35	0.896	-1.00	4.50
40	0.921	-0.77	4.73
45	0.937	-0.56	4.94
50	0.962	-0.34	5.16
55	0.974	-0.23	5.27
60	0.992	-0.07	5.43
65	0.995	-0.05	5.45
70	1.000	0.00	5.50
75	0.986	-0.12	5.38
80	0.972	-0.25	5.25
85	0.941	-0.53	4.97
90	0.910	-0.82	4.68
95	0.869	-1.22	4.28
100	0.837	-1.54	3.96
105	0.835	-1.57	3.93
110	0.855	-1.36	4.14
115	0.887	-1.04	4.46
120	0.910	-0.82	4.68
125	0.905	-0.87	4.63
130	0.880	-1.11	4.39
135	0.851	-1.40	4.10
140	0.832	-1.60	3.90
145	0.846	-1.46	4.04
150	0.875	-1.16	4.34
155	0.896	-0.96	4.54
160	0.921	-0.72	4.78
165	0.937	-0.56	4.94
170	0.962	-0.34	5.16
175	0.974	-0.23	5.27
180	0.992	-0.07	5.43
185	0.995	-0.05	5.45
190	1.000	0.00	5.50
195	0.986	-0.12	5.38
200	0.972	-0.25	5.25
205	0.941	-0.53	4.97
210	0.910	-0.82	4.68

Azimuth (Degrees)	Relative Field	dB	Gain (dBd)
215	0.869	-1.22	4.28
220	0.837	-1.54	3.96
225	0.835	-1.57	3.93
230	0.855	-1.36	4.14
235	0.887	-1.04	4.46
240	0.910	-0.82	4.68
245	0.905	-0.87	4.63
250	0.880	-1.11	4.39
255	0.851	-1.40	4.10
260	0.832	-1.60	3.90
265	0.846	-1.46	4.04
270	0.875	-1.16	4.34
275	0.896	-0.96	4.54
280	0.921	-0.72	4.78
285	0.937	-0.56	4.94
290	0.962	-0.34	5.16
295	0.974	-0.23	5.27
300	0.992	-0.07	5.43
305	0.995	-0.05	5.45
310	1.000	0.00	5.50
315	0.986	-0.12	5.38
320	0.972	-0.25	5.25
325	0.941	-0.53	4.97
330	0.910	-0.82	4.68
335	0.869	-1.22	4.28
340	0.837	-1.54	3.96
345	0.835	-1.57	3.93
350	0.855	-1.36	4.14
355	0.887	-1.04	4.46
	Special radials		
272	0.883	-1.08	4.42
272.5	0.885	-1.06	4.44
273	0.887	-1.04	4.46

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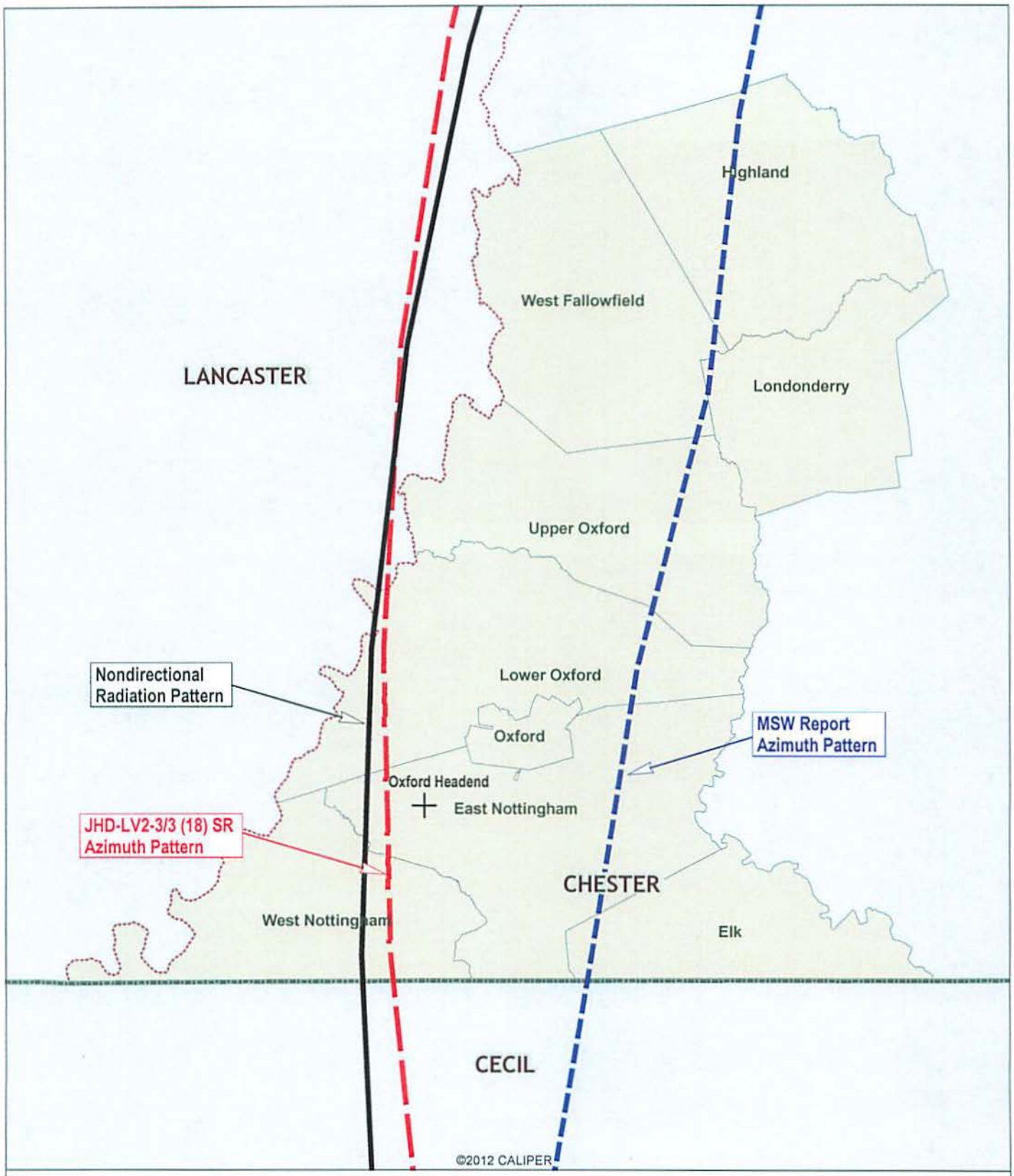
Scale
10 0 10 20 30 40
Kilometers

FIGURE 5
CIRCULAR VS. NONCIRCULAR PATTERNS
WACP 10 KW 256 M HAAT CH. 4
ATLANTIC CITY, NEW JERSEY
WESTERN PACIFIC BROADCAST LLC
BLCDT-20120621ABY
November 2013



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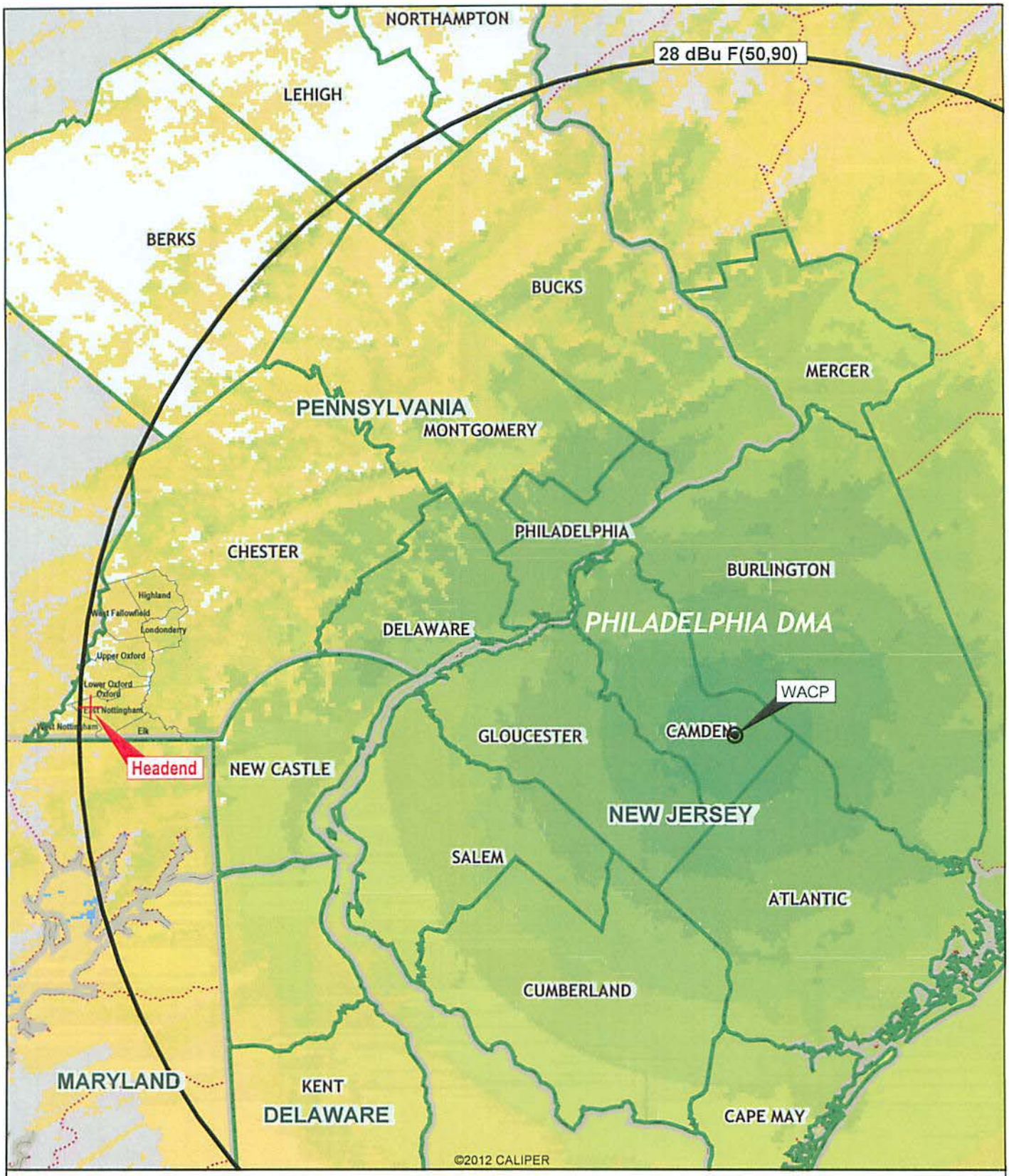
Scale
1.5 0 1.5 3 4.5 6
Kilometers

FIGURE 6
WACP 28 DBU NOISE-LIMITED CONTOUR AND ARMSTRONG COMMUNITY MAP CIRCULAR VS. NONCIRCULAR

CHANNEL 4 ATLANTIC CITY, NJ
10 KW ERP 256 M HAAT
November 2013



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OET-69 ANALYSIS SETTINGS
0.5 km Cells / 1.0 km Terrain retrieval / LR error codes ignored
SE Cnr 38.566944, 73.309166; NW Cnr 40.904722, 76.342500

Green indicates high field strength fading to yellow and then to white at the noise-limited level.

Scale
5 0 5 10 15 20
Kilometers

FIGURE 7
WACP NOISE-LIMITED SERVICE AND ARMSTRONG COMMUNITY MAP
CHANNEL 4 ATLANTIC CITY, NJ
10 KW-ND ERP 256 M HAAT
BLCDT-20120621ABY

November 2013

EXHIBIT B

WACP Armstrong Oxford, PA Reception Issues

Technical Statement Todd Loney

12 November 2013

I have been involved in the technical side of the broadcast industry for over twenty-five years. I have worked for several manufacturers of broadcast and radio frequency equipment. I have written and presented technical papers at the NAB Engineering Conference as well as the IEEE Broadcast Technical Society Conference. I hold a BS in Applied Physics from the University of Texas Arlington. I am an active member of the IEEE, SBE and SMPTE.

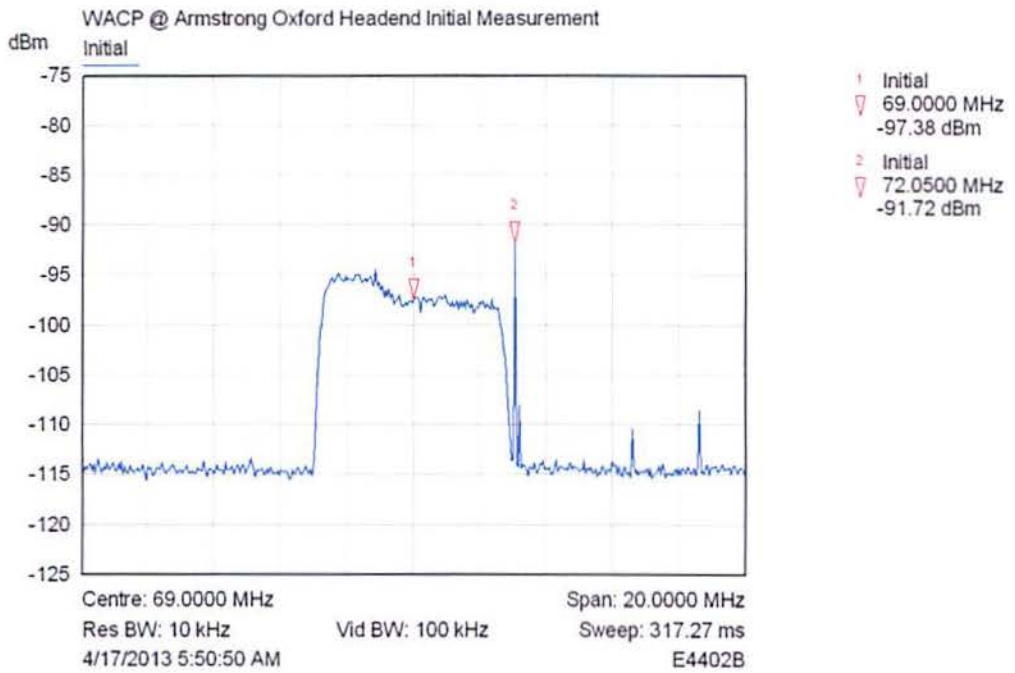
I have been involved with WACP in the design and construction of its broadcast facilities and have also assisted them on various reception issues encountered.

Earlier this year, WACP requested that I coordinate a site visit to the Armstrong Oxford, PA headend to determine why signal reception in this location was not adequate. I contacted Mr. Ed Hassler to discuss the issues encountered and reviewed his report. Mr. Hassler and I met up at the headend on 17 April 2013. I brought an Agilent E4402B Spectrum Analyzer and Sencore ATSC RF Probe to quantitatively characterize the signal level and decoded modulation error ratio (MER/SNR). To ensure a robust signal we also brought a SITCO PA-24-F-4 preamplifier and Microwave Filter Company 3303D adjacent channel filter.

Prior to travelling to this headend, I verified that the transmitted signal was optimal.

The receive antenna had previously been peaked and downlead was

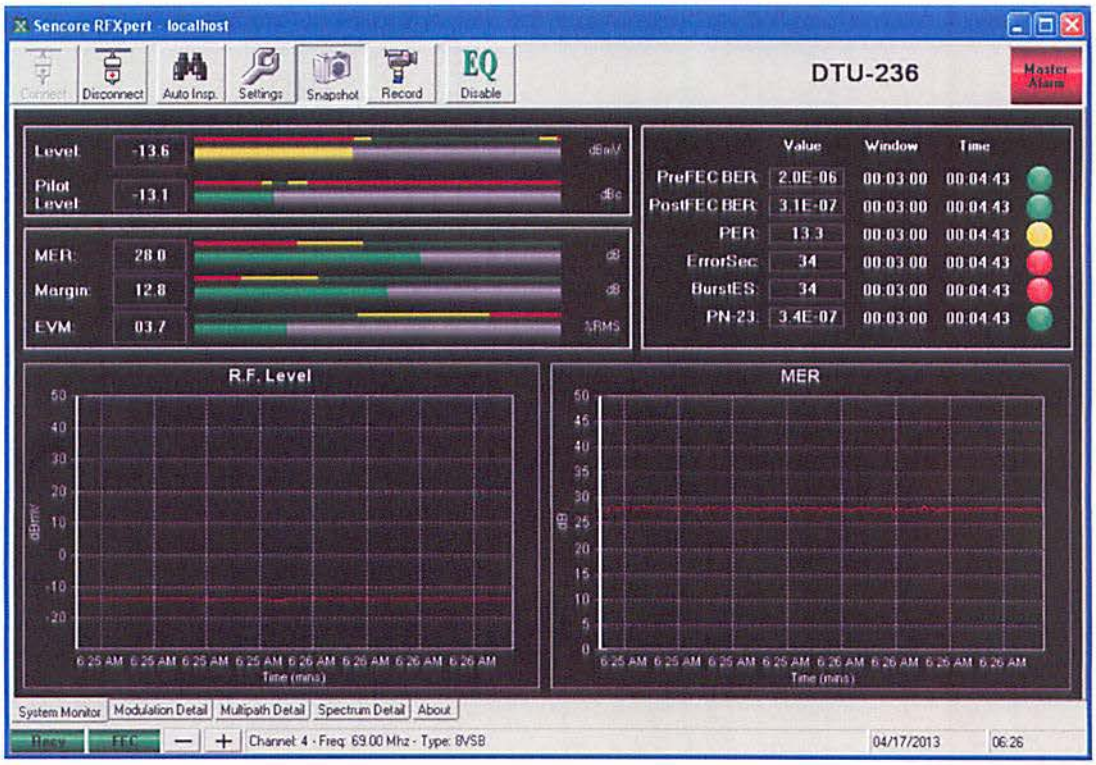
run into the building. The cable was connected to a consumer receiver and monitor. Mr. Hassler seemed surprised at the signal quality. We connected the downlead directly to the spectrum analyzer through a 75-50 ohm matching pad (5.71dB insertion loss) to measure the signal. The spectrum analyzer has a preamplifier but this was not energized to make any measurements, as there was adequate signal present.



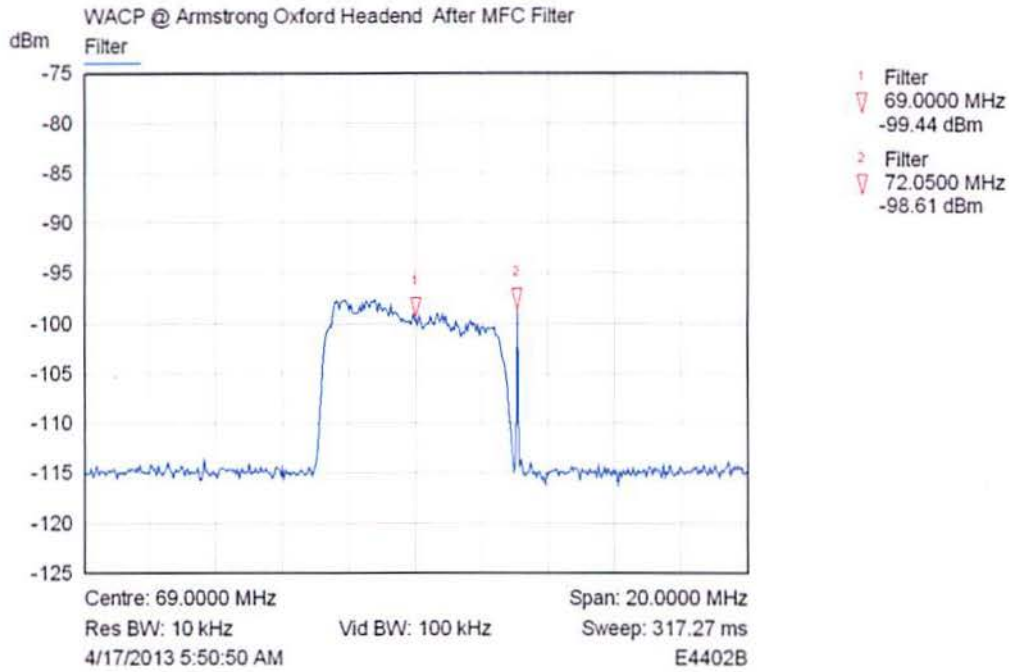
There is energy just above the channel at 72.05MHz. I used a narrow resolution bandwidth and attempted to demodulate the signal. It sounded like some sort of paging transmitter. I am not certain that this is causing issues with reception, as we did not experience any macroblocking during my visit. If additional tests are conducted, I would like to identify this carrier and arrange for them to turn off while

conducting measurements to ensure that they are not causing reception issues.

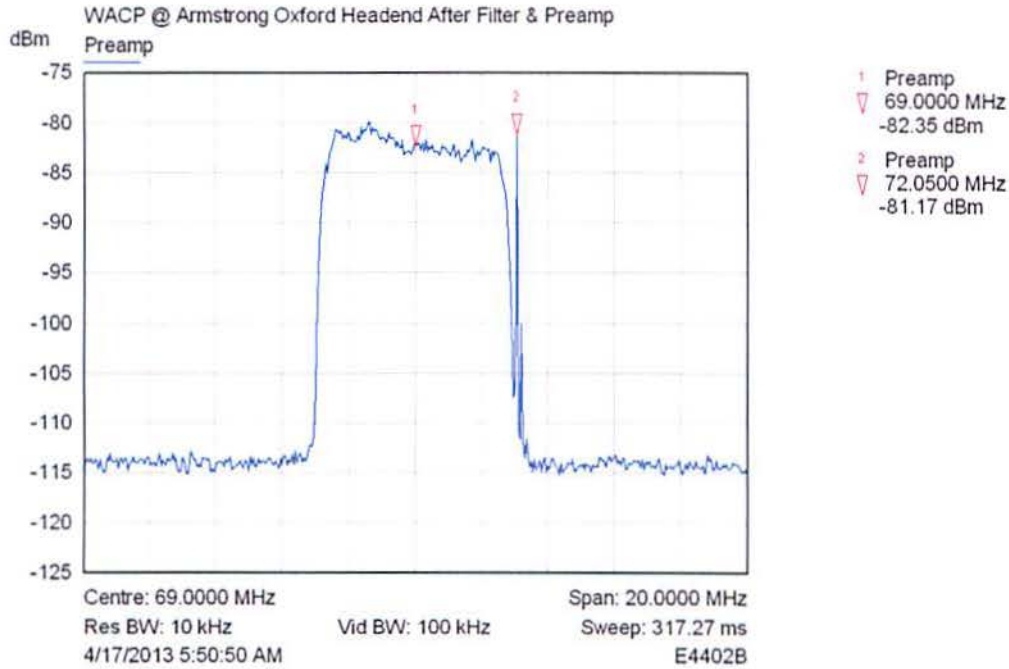
This is the screen shot from the Sencore RF Probe prior to installing the preamp. The decoded MER measured 28dB, which is 13dB from decoder threshold. Received signal level is -13dBmV which equates to -50dBm.



The MFC adjacent channel filter was included to ensure that the preamp does not amplify out of band signals. The energy just above the channel at 72.05MHz is too close to the channel edge for the filter to be effective.

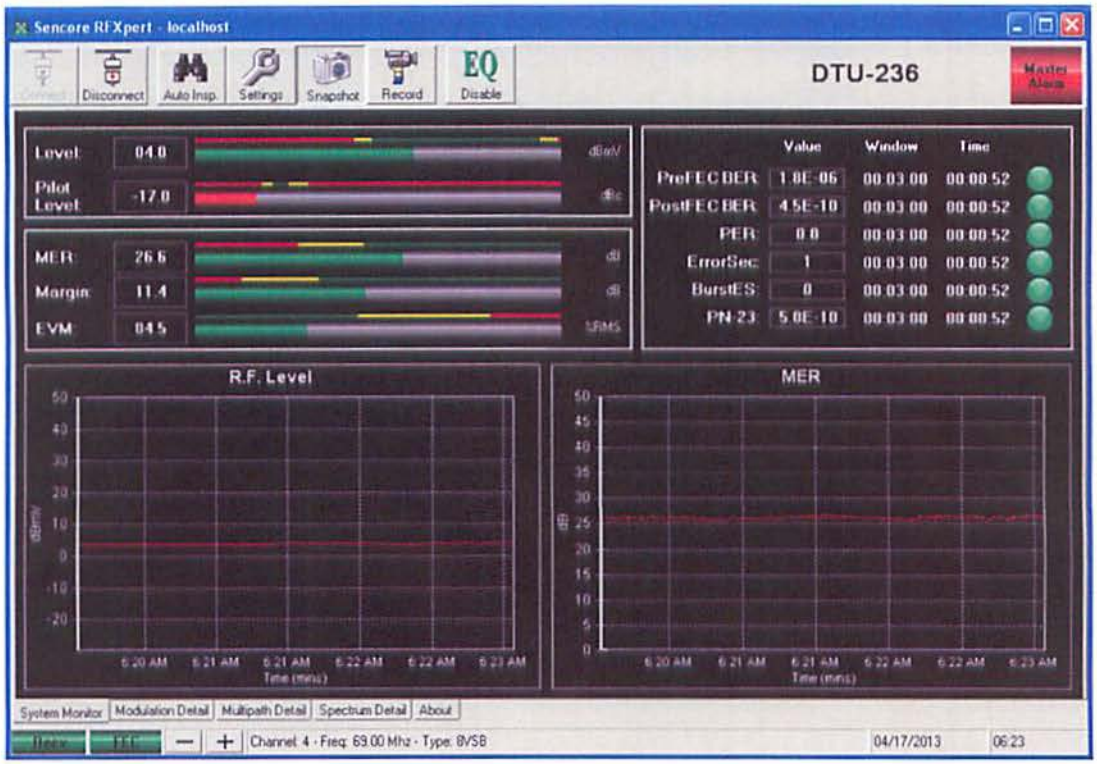


Finally, the preamplifier was added after the filter.



Measurement with the Sencore RF Probe after the filter and preamplifier

The decoded MER is 26.6dB and signal level increased to 4dBmV which equates to -43dBm



Following our testing, Mr. Hassler advised he was going to record the WACP off air signal with their IneoQuest Cricket for several days. He advised that there were multiple outages recorded throughout the testing. The RF level dropped out erratically and there were packet errors. After receiving this data, we closely reviewed the WACP signal monitoring at the transmitter and did indeed correlate with some of the issues seen at their headend. We identified some

stability issues in the transmitters exciter. It should be noted that in the report, the brief outages were total loss of carrier and not a fade induced error. This is further evidence of an issue with the transmitter. We contacted the manufacturer to upgrade to the latest technology exciter and ordered replacements. Once installed and optimized, the transmitted MER has improved by better than 9dB. We have not seen any issues with the signal since this upgrade was implemented on 17 September.

I advised Mr. Hassler on 23 September that WACP had corrected the transmitter issues and that the transmitted MER had improved to 35dB from 26dB. I requested to revisit and again measure the signal but was declined pending some filings.

Conclusions

There is adequate signal level being delivered to the Armstrong Oxford, PA cable headend. In reviewing the signal monitoring from Armstrong, the intermittent carrier loss occurred at the transmitter due to defective exciters. The carrier at 72.05MHz should not be ruled out as a potential issue as well. I did not see fading signal level trends in their reporting indicating long term signal level robustness. Now that the WACP exciters have been replaced, the transmitted signal is superlative. I believe that given the level received, there should not be issues receiving a stable signal from WACP.

Regarding reception with closely spaced carrier at 72.05MHz, DTV receivers typically utilize a Raised Root Cosine (RRC) filter to shape

the received signal. These filters are very selective with steep skirts around 150kHz wide. The upper utilized WACP spectrum is at 71.38MHz so 670kHz away from 72.05MHz carrier. The signal, just above the channel edge, at 72.05MHz should be identified and, if at all possible, moved further away in frequency from the CH4 channel edge to ensure receivers in that area are able to demodulate the CH4 signal without difficulty

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on 12 November 2013

Todd Loney
Electron Dynamics Inc
332 Salamanca Road
Galiano Island, BC V0N 1P0
Canada
(206) 979-1577

tloney@ieee.org

EXHIBIT C

XFINITY TV

Cable TV with the most channels. on demand, HD, and sports!

Channel Line-up HD service is required to view channels in HD	Limited Basic 10+ Channels	Digital Economy 40+ Channels	Digital Starter 80+ Channels	Digital Preferred 160+ Channels	Digital Preferred +
3 CBS 3 (KYW, Phila.)	✓	✓	✓	✓	✓
4 WACP-TV	✓	✓	✓	✓	✓
6 6 ABC (WPVI, Phila.)	✓	✓	✓	✓	✓
7 PHL 17 (WPHL, Phila.)	✓	✓	✓	✓	✓
8 WGAL-8 (NBC)	✓	✓	✓	✓	✓
9 Fox 29 (WTXF, Phila.)	✓	✓	✓	✓	✓
10 NBC 10 (WCAU, Phila.)	✓	✓	✓	✓	✓
11 QVC	✓	✓	✓	✓	✓
12 WHYY (PBS, Phila.)	✓	✓	✓	✓	✓
13 CW Philly 57 (WPSG, Phila.)	✓	✓	✓	✓	✓
14 Animal Planet	✓	✓	✓	✓	✓
15 WFMZ	✓	✓	✓	✓	✓
16 Univision	✓	✓	✓	✓	✓

	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM
003 KYW							
004 WACPDT							
006 WPVI							
PBS 012 WHYY							
015 WFMZ							
WMCN 019 WMCNDT							
PBS 023 WNJT							

EXHIBIT D

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The Guide

CHANNELS: All Channels for 19335 edit
SORT BY: Channel Number
HIGHLIGHT: None
Stream at Home [?]
Stream Everywhere [?]

Eastern Standard Time — TODAY, WED, THU, FRI, SAT, SUN, MON, TUE, WED, THU, FRI, SAT, SUN, MON

12:00 PM | 12:30 PM | 1:00 PM | 1:30 PM | 2:00 PM | 2:30 PM

1	1 INFO	Customer Information Channel		Customer Information Channel		Customer Information Channel	
50							
100	3 KYW	Talk Philly	The Young and the Restless		The Bold and the	The Talk	
150							
200	CBS 3 KYW	Talk Philly	The Young and the Restless		The Bold and the	The Talk	
250							
300	4 WACP	Best Reverse Mortgage!		Paid Programming	Shaun T's NEW T25	Paint My House!	
350							
400	4 WACP	Best Reverse Mortgage!		Paid Programming	Shaun T's NEW T25	Paint My House!	
450							
500	6 WPVI	Action News	Who Wants to Be a	The Chew		General Hospital	
550							
600	abc 6 WPVI	Action News	Who Wants to Be a	The Chew		General Hospital	
650							
700	10 WCAU	Days of our Lives		Access Hollywood Live		Steve Harvey	
750							
800	10 WCAU	Days of our Lives		Access Hollywood Live		Steve Harvey	
2000							
9000	12 WHYY	Sid the Science Kid	Thomas & Friends	Daniel Tiger's	Clifford the Big Red	Super Why!	Dinosaur Train

12:00 PM | 12:30 PM | 1:00 PM | 1:30 PM | 2:00 PM | 2:30 PM

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TV Listings DISH Philadelphia - Satellite: Local 19335 Tue, Nov. 12

EST	12 PM	12:30	1 PM	1:30	2 PM	2:30
3 KYW	**Talk Philly**	**The Young and the Restless** new		**The Bold and the Beautiful** new	**The Talk** new	
3 KYWDT	**Talk Philly**	**The Young and the Restless** new		**The Bold and the Beautiful** new	**The Talk** new	
4 WACPDT	**Best Reverse Mortgage!**		**Paid Programming**	**Shaun T's NEW T25 Workout!**	**Paint My House!**	
6 WPVI	**Action News** new	**Who Wants to Be a Millionaire** new	**The Chew** *Stress Free Suppers* new		**General Hospital** new	
6 WPVIDT	**Action News** new	**Who Wants to Be a Millionaire** new	**The Chew** *Stress Free Suppers* new		**General Hospital** new	
10 WCAU	**Days of our Lives** new		**Access Hollywood Live** new		**Steve Harvey** *Steve Shows Women How to Get Their Men to Commit!* new	
10 WCAUDT	**Days of our Lives** new		**Access Hollywood Live** new		**Steve Harvey** *Steve Shows Women How to Get Their Men to Commit!* new	
12 WHYYDT	**Sid the Science Kid** *Sleep? Who Needs It?!*	**Thomas & Friends** *Peace & Quiet*	**Daniel Tiger's Neighborhood** *Daniel's*	**Clifford the Big Red Dog** *Clifford Grows Up; Jetta's*	**Super Why!** *The Comic Book: Attack of the Eraser*	**Dinosaur Train** *Derek the Deinonychus; Don's*
12 WHYY	**Sid the Science Kid** *Sleep? Who Needs It?!*	**Thomas & Friends** *Peace & Quiet*	**Daniel Tiger's Neighborhood** *Daniel's*	**Clifford the Big Red Dog** *Clifford Grows Up; Jetta's*	**Super Why!** *The Comic Book: Attack of the Eraser*	**Dinosaur Train** *Derek the Deinonychus; Don's*
17 WPHLDT	**Maury** *We Just Got Married ... Did You Get This Girl Pregnant?* new		**Jerry Springer** *My Love for You Has Disappeared*		**The Steve Wilkos Show** *You Wrote Dirty Letters to Her Mom?* new	
17 WPHL	**Maury** *We Just Got Married ... Did You Get This Girl Pregnant?* new		**Jerry Springer** *My Love for You Has Disappeared*		**The Steve Wilkos Show** *You Wrote Dirty Letters to Her Mom?* new	

ZAP2it 2013 TMS

EXHIBIT E

From: "Hassler, Ed Jr." <ehassler@agoc.com>
Date: September 27, 2013 at 11:41:42 PDT
To: "tloney@ieee.org" <tloney@ieee.org>
Cc: "cccinnamon@cm-chi.com" <cccinnamon@cm-chi.com>
Subject: WACP

Todd:

I understand Armstrong is filing a market modification Petition with the FCC, asking to exclude the communities served by the Oxford headend from WACP's must carry market. I have been advised that we should defer further testing until the FCC makes a decision on the market modification.

Regards,
Ed

Edgar E. Hassler, Jr.
V.P. Engineering
Armstrong Utilities, Inc.
One Armstrong Place
Butler, PA 16001
724-283-0925

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Tom J. Dougherty

From: Todd Loney [tloney@ieee.org]
Sent: Monday, September 23, 2013 2:10 PM
To: Ed Jr. Hassler
Cc: Kevin Busselman; Scott Johnson; Tom J. Dougherty; Gregory R. Kraft
Subject: WACP Reception

Hello Ed

I wanted to follow up with you regarding the concerns you have expressed with WACP signal quality. As you know, on April 17, after installation of a preamp & filter we observed an overall very good quality signal and picture at your headend. But, following my visit, you noted in a report that later you had found a combination of degraded picture quality, high level of packet loss, and erratic low signal-to-noise levels. We investigated your concerns and found some issues with the transmitter, which was largely the need for replacement of the exciters. Working with a manufacturer to ensure the exciters were right for the station's low VHF channel, WACP has now replaced their exciters with latest technology and the signal is now extremely robust with excellent performance metrics. I was at the station last week to observe the improved performance and can report the success which is evident.

Now that we have identified and corrected the issues, we are ready to conduct new tests at your headend, with again using the preamp and filter installed last April. Those tests will tell us both how WACP signal is performing at the headend.

WACP can be available at various times to participate with you in making the tests. Please let me know dates which will be acceptable to you and we can be back in touch.

Thank you,

Todd Loney
206.979.1577
tloney@ieee.org

From: "Hassler, Ed Jr." <ehassler@agoc.com>
Date: August 20, 2013, 2:13:08 PM EDT
To: "'gregorykraft@wpbroadcast.com'" <gregorykraft@wpbroadcast.com>
Cc: "'slupia@rtowers.com'" <slupia@rtowers.com>, "'kbusselman@rtowers.com'" <kbusselman@rtowers.com>, "'kevinokane@wpbroadcast.com'" <kevinokane@wpbroadcast.com>, "'cccinnamon@cm-chi.co'" <cccinnamon@cm-chi.co>
Subject: Re: WACP test with new exciters

Greg:

I am ouy of the office on vacation this week. My travel plans for next week have been made and I will be traveling returning the following Monday. I will contact you when I return.

Edgar E Hassler,Jr
VP Engineering
Armstrong Utilities, Inc
One Armstrong Place
Butler, PA 16001
724-283-0925

From: Gregory R. Kraft [mailto:gregorykraft@wpbroadcast.com]
Sent: Tuesday, August 20, 2013 12:18 PM
To: Hassler, Ed Jr.
Cc: Sue Lupia <slupia@rtowers.com>; Kevin Busselman <kbusselman@rtowers.com>; Kevin O'Kane <kevinokane@wpbroadcast.com>
Subject: WACP test with new exciters

Edgar –

I am writing to you because we will be finishing up the installation of our new exciters this week and would like to schedule a signal test at your facility for Tues 8/27.

I believe you still have a channel 4 filter and preamp that was left on site to perform the most recent test of our signal level?

I appreciate you accommodating this test next Tues 8/27/2013.

Please write me back with a time of day and your exact location. I will travel to your location to observe the test along with a colleague of mine.

Regards

-Greg Kraft
Chief Engineer – WACP TV
201.704.2338

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information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender or send back to returns@agoc.com and delete the material from any computer.

From: Todd Loney [mailto:tloney@ieee.org]
Sent: Wednesday, May 08, 2013 3:31 PM
To: Hassler, Ed Jr.
Cc: Christopher Cinnamon (cccinnamon@cm-chi.com); Kevin Busselman; Scott Johnson
Subject: Re: WACP

Hello Ed

Thank you for your response yesterday. I reviewed your email and the pictures. As you know, the pictures are inconsistent with the tests we made on April 17 at the headend and visual pictures displayed. You recall on April 17th, the signal was measured without the filter and preamp, then with the filter, and again with both the filter & preamp. A robust signal was evident and the picture quality was fine. I remember you expressed surprise as to the signal level even without the filter & preamp. Given our experience on April 17, as you can imagine, I was quite surprised to see the poor signal quality in the pictures you sent yesterday. Were those pictures taken on the same monitor we looked at on April 17? Also, what date and what time were they taken and when did problems start to appear? I can check to see if something was going on at WACP affecting the signal at whatever date/time you made those pictures. Also, in the pictures, I see a STB underneath and don't recall seeing that in April. Let me know. Lastly, in April, you mentioned that you would do a 24hr test with your IneoQuest Cricket after getting programming information from WACP, may I see the results of that test? As soon as I receive the various information mentioned above from you, I will be back in touch as soon as possible.

Thanks again,

Todd

From: "Hassler, Ed Jr." <ehassler@agoc.com>
Date: May 7, 2013, 12:34:21 PDT
To: "tloney@ieee.org" <tloney@ieee.org>
Cc: "Christopher Cinnamon (cccinnamon@cm-chi.com)" <cccinnamon@cm-chi.com>
Subject: WACP

Hi Todd,

The big problem continues to be the station's picture quality – tiling, freezing and audio drops with the bandpass filter and preamplifier you provided installed.(See screen shots.) I can not imagine that the station would want such a poor picture quality distributed, and we certainly do not want to launch a signal with such poor picture quality. I understand the must carry regulations and cases do address this issue.

Sincerely,
Ed

Edgar E. Hassler, Jr.
V.P. Engineering
Armstrong Utilities, Inc.
One Armstrong Place
Butler, PA 16001
724-283-0925

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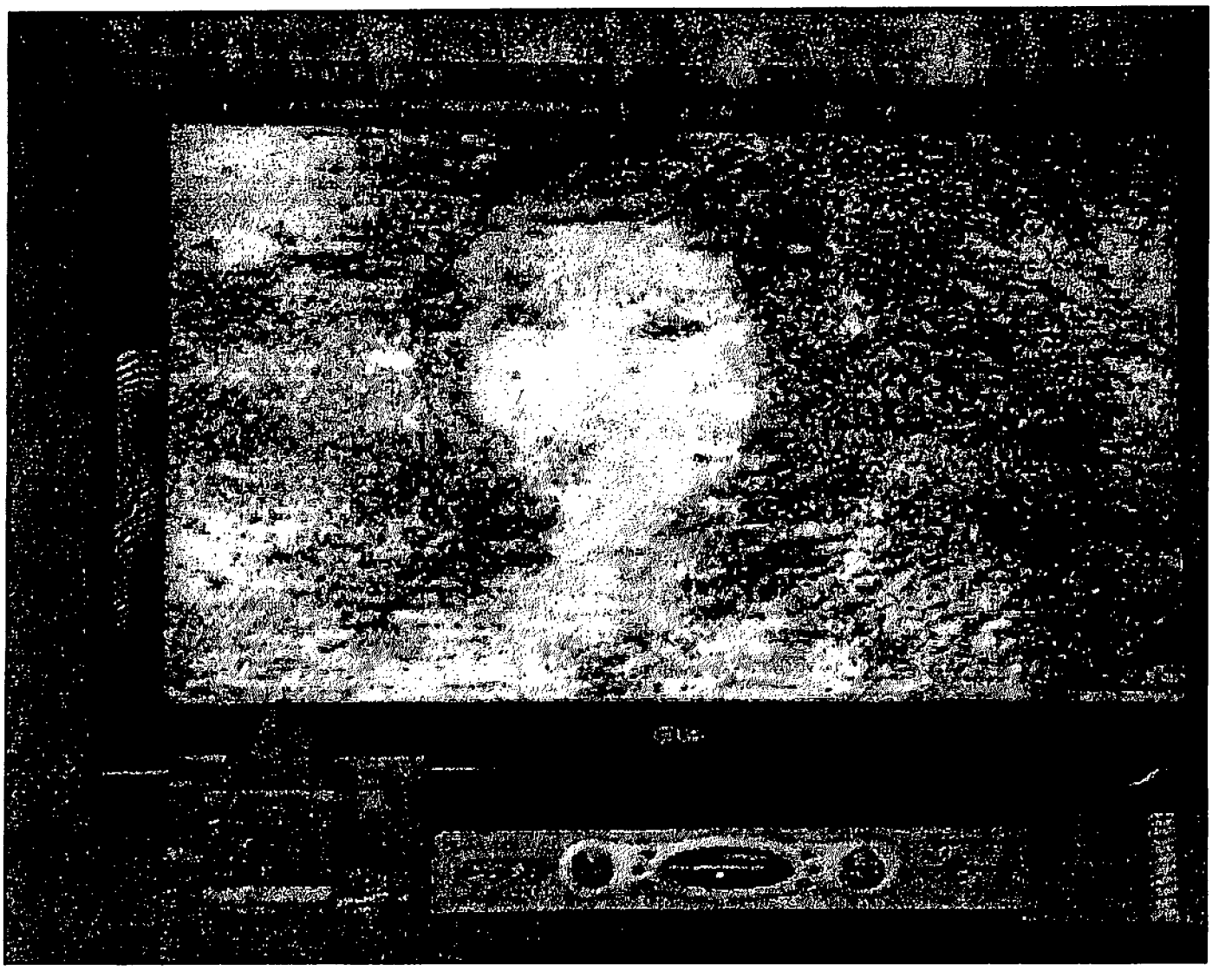

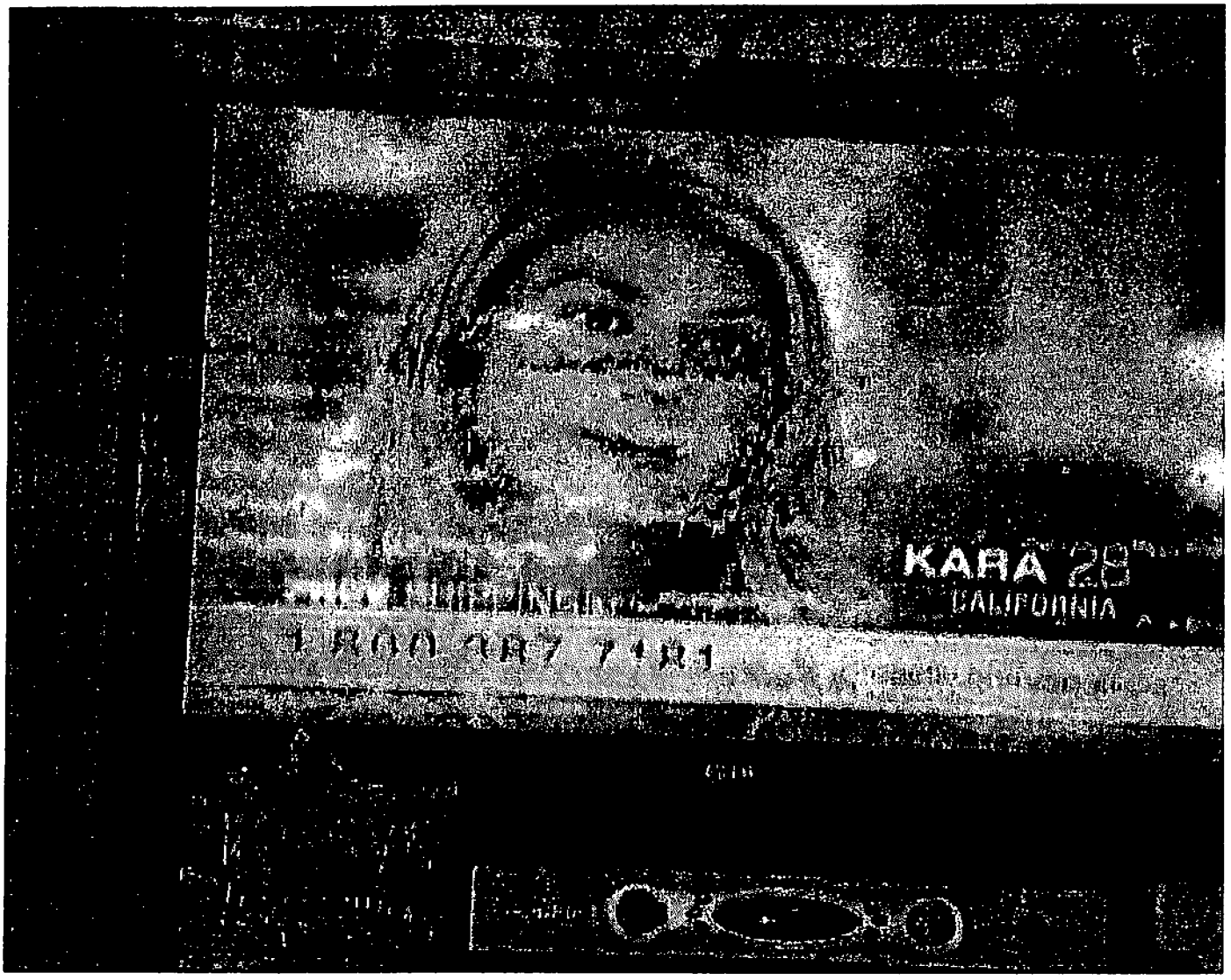
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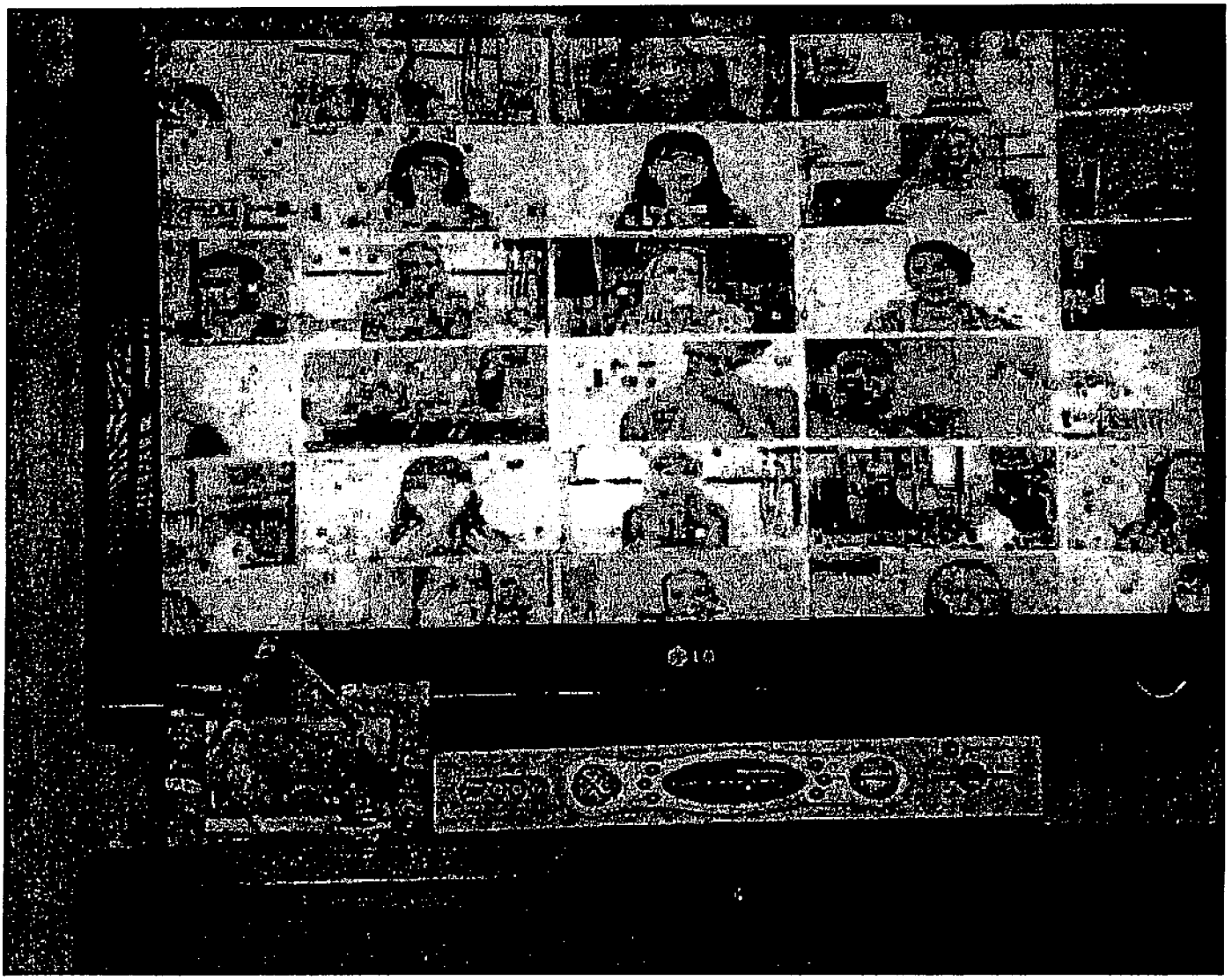

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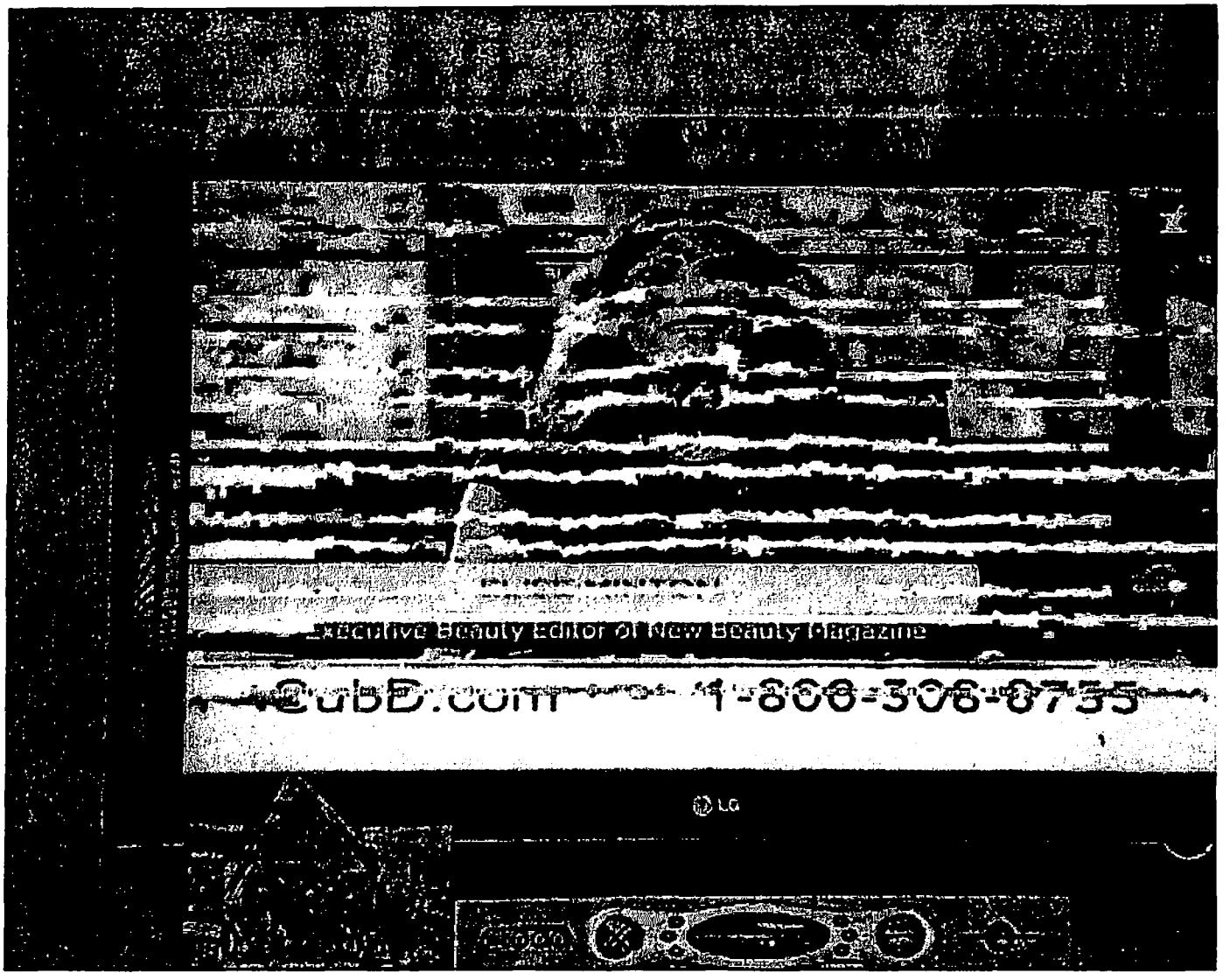
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LG

From: "Hassler, Ed Jr." <ehassler@agoc.com>
Subject: RE: WACP
Date: 11 January, 2013 4:46:37 AM PST
To: "tloney@ieee.org" <tloney@ieee.org>
Cc: "Christopher Cinnamon (cccinnamon@cm-chi.com)" <cccinnamon@cm-chi.com>

Mr. Lony:

Our attorney received a call from WACP's attorneys today, and they passed along your contact information as WACP's engineer. If you would like to contact me regarding the station's signal strength problems, please do so via email. Given the pending must carry complaint filed by Western Pacific Broadcasting against Armstrong, I need to keep our communication in writing for now.

Sincerely,

Ed Hassler, Jr.
Vice President of Engineering

From: Scott Johnson
Sent: Thursday, January 10, 2013 4:46 PM
To: cccinnamon@cm-chi.com
Cc: Tom J. Dougherty
Subject: WACP and Must Carry

Chris— The engineer's contact information is as follows:

Todd Loney
206.979.1577
tloney@ieee.org

While emails are fine, Mr. Hassler should simultaneously telephone him as the time zone differences may
be a challenge as Mr. Loney is in the Northwest time zone. Nevertheless, Mr. Loney will be responsive.
---Regards Scott

M. Scott Johnson | Fletcher, Heald & Hildreth, PLC
1300 N. 17th Street, Suite 1100 | Arlington, VA 22209
Tel: 703.812.0474 | Fax: 703.812.0486 | Mobile: 202.256.5941
sjohnson@fhhlaw.com | www.FHHLAW.com | www.commlawblog.com

From: Christopher Cinnamon [mailto:cccinnamon@cm-chi.com]
Sent: Thursday, January 10, 2013 4:26 PM
To: Scott Johnson; Tom J. Dougherty
Subject: RE: WACP and Must Carry

Scott:

The email I noted and passed to Armstrong was tlony@ieee.org. Your email spells his last name as Loney. Please confirm his email address.

Regards,

Chris Cinnamon
Cinnamon Mueller
307 North Michigan Ave.
Suite 1020
Chicago, IL 60601
P: (312) 372-3930
F: (312) 372-3939
cccinnamon@CinnamonMueller.com

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Tom J. Dougherty

From: Scott Johnson
Sent: Thursday, January 10, 2013 4:20 PM
To: cccinnamon@cm-chi.com; Tom J. Dougherty
Subject: WACP and Must Carry

Chris—Your comments are received. The good news is that the engineers can discuss a solution, which, if achieved, will obviate any additional filings with the FCC and in the process save the FCC staff's precious time in considering this matter. I can also report that earlier today Mr. Loney endeavored to reach out to Mr. Hassler to shorten the timeframe.
Between Mr. Hassle's efforts, after your discussion with him, and Mr. Loney's efforts, they should be able to have a conference call and follow up
for a solution. Naturally, contact us if you have any further information. --Scott

M. Scott Johnson | **Fletcher, Heald & Hildreth, PLC**
1300 N. 17th Street, Suite 1100 | Arlington, VA 22209
Tel: 703.812.0474 | Fax: 703.812.0486 | Mobile: 202.256.5941
sjohnson@fhhlaw.com | www.FHHLAW.com | www.commlawblog.com

From: Christopher Cinnamon [mailto:cccinnamon@cm-chi.com]
Sent: Thursday, January 10, 2013 3:48 PM
To: Tom J. Dougherty
Cc: Scott Johnson
Subject: RE: WACP
Importance: High

Mr. Dougherty:

Your email, like your pleadings, contains misstatements in an attempt to distort the record in this proceeding.

I did not "refuse" to provide Ed Hassler's contact information. I declined to do so during the call, as I explained, because I did not have his permission, and would need to do so before releasing that information to WACP's lawyers. You indicated you had authority to share Mr. Loney's contact information, and I offered to pass that to Mr. Hassler.

Your call today only continues the station's lack of sincere engagement in dealing with its engineering problems. Qualified broadcast engineers routinely contact cable company engineers to address signal issues, without using lawyers for "directory assistance." It is extraordinary that WACP's engineer did not figure out how to contact Mr. Hassler directly, and that he did not initiate that contact months ago.

With this clarification of the misstatements in your email, I have no further comments.

Regards,

Chris Cinnamon
Cinnamon Mueller
307 North Michigan Ave.
Suite 1020
Chicago, IL 60601
P: (312) 372-3930
F: (312) 372-3939
cccinnamon@CinnamonMueller.com

CINNAMON MUELLER

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From: Tom J. Dougherty [mailto:dougherty@fhhlaw.com]
Sent: Thursday, January 10, 2013 2:36 PM
To: cccinnamon@cm-chi.com
Cc: Scott Johnson
Subject: WACP

Mr. Cinnanmon,

Scott Johnson and I want to confirm our telephone conversation of this morning, hence the purpose for this email.

Specifically, we called for the expressed purpose of getting each side's engineers together to see if they might resolve the sole disputed aspect of the must carry controversy, that being signal quality. We asked you to supply the telephone number of Armstrong's engineer who authored the declaration in Armstrong's opposition to WACP's complaint requesting an order of carriage against Armstrong. You refused to provide his contact information, and suggested that we provide the contact information for our engineer, Todd Loney, and that you would provide that contact information to your client. We provided Todd's email address and telephone number. We also called him to tell him to expect a call from Armstrong's engineer. We trust that you have forwarded Mr. Loney's contact information to Armstrong's engineer with the request to call Mr. Looney as soon as possible, and we hope that the engineers will confer soon and resolve the issue. Please let me know if you have any questions or comments. Thanks. Tom

---

Thomas J. Dougherty, Jr., Esquire | Fletcher, Heald & Hildreth, PLC
1300 N. 17th Street, Suite 1100 | Arlington, VA 22209
Tel: 703.812.0409 | Fax: 703.812.0486 | Mobile: 202.714.7024
Dougherty@FHHLAW.com | www.FHHLAW.com | www.commlawblog.com

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