

Comprehensive Exhibit for Facilities Modification for WTRM Contingent application to Minor Modification of License

The applicant proposes a minor modification of the licensed facilities of non-commercial educational FM station, WTRM, Winchester, VA.

Description of Proposal and Minor Modification

The modification proposes a first-adjacent channel frequency change from Channel 217 to Channel 216, a reduction in ERP to 75 watts and specification of a new directional antenna pattern. The instant application provides f(50,50) 60 dBu contour overlap with the currently-licensed facilities of WTRM and is a frequency change of only one adjacent channel, thus the application is a minor change pursuant to Title 47 CFR Section 73.3573. The instant application is a contingent application on the grant of a minor modification of the licensed facilities of WARN, Culpeper, VA. The contingent application modification to the WARN facility includes a minor change from Channel 218 to Channel 217, an antenna tower site change, RSAMSL change, an increase in ERP and specification of a directional antenna. Further, the minor modification is acceptable because neither contingent application is constrained by a comparative proceeding limiting the licensee's from modifying the facilities.

Contingent Application Justification and Details

The applicant's proposal is compliant with 47 CFR 37.3517(e) which states:

(e) The Commission will accept up to four contingently related applications filed by FM licensees and/or permittees for minor modification of facilities. Two applications are related if the grant of one is necessary to permit the grant of the second application. Each application must state that it is filed as part of a related group of applications to make changes in facilities, must cross-reference each of the related applications, and must include a copy of the agreement to undertake the coordinated facility modifications. All applications must be filed on the same date. Any coordinated facility modification filing that proposes the cancellation of a community's sole noncommercial educational FM station license also must include a public interest justification. Dismissal of any one of the related applications as unacceptable will result in the dismissal of all the related applications.

The instant application is compliant with the terms of this rule section because:

1. The instant application only proposes two total contingent modification applications.
2. The two applications are contingent because the grant of one is contingent on the grant of the other.
3. The applicant, by this section has stated the contingency and cross-referenced the other's application.

4. The applicant is the licensee of both stations in the coordinated plan, so no consent letter is necessary.
5. The two contingent applications are being filed on the same day.
6. The applicant is not proposing to change the community of license in either contingent application, so no public interest justification is required.

Engineering Study for the WTRM Facilities Modification

The applicant has performed an engineering study of the changes proposed in the instant application.

Below is the FCC Height of Average Terrain Calculator output for the proposed facility. The proposed antenna radiation center above mean sea level is 812 meters and the proposed HAAT is 440 meters per the FCC Online HAAT Calculator output below.

39 11	2.00 N	78 23	15.00 W
FCC/NGDC	Continental	USA	
0.0	474.8		
45.0	421.4		
90.0	524.1		
135.0	539.6		
180.0	527.4		
225.0	168.6		
270.0	415.1		
315.0	446.1		

The maximum major-lobe distance to the f(50,50) 60 dBu contour for the given height above average terrain is 21.638 km. Thus the pertinent license class for the proposal is Class A per 47 CFR Section 73.315.

Directional Antenna Description

The applicant has proposed use of a directional antenna. The pattern is compliant with Section 73.316 in that the antenna pattern proposed does not exceed a 15 dB maximum to minimum radiation in the Horizontal Plane. Further the application does not have a radiation pattern that varies more than 2 dB per 10 degrees. This is shown in the attached drawing and radial tabulation of the proposed directional antenna.

Community of License Coverage

The community of license for WTRM is Winchester, Virginia. As shown in the attached map, the proposed f(50,50) 60 dBu principal community contour covers

100 percent of the population and 100 percent of the land area of the community of license.

Interference Study

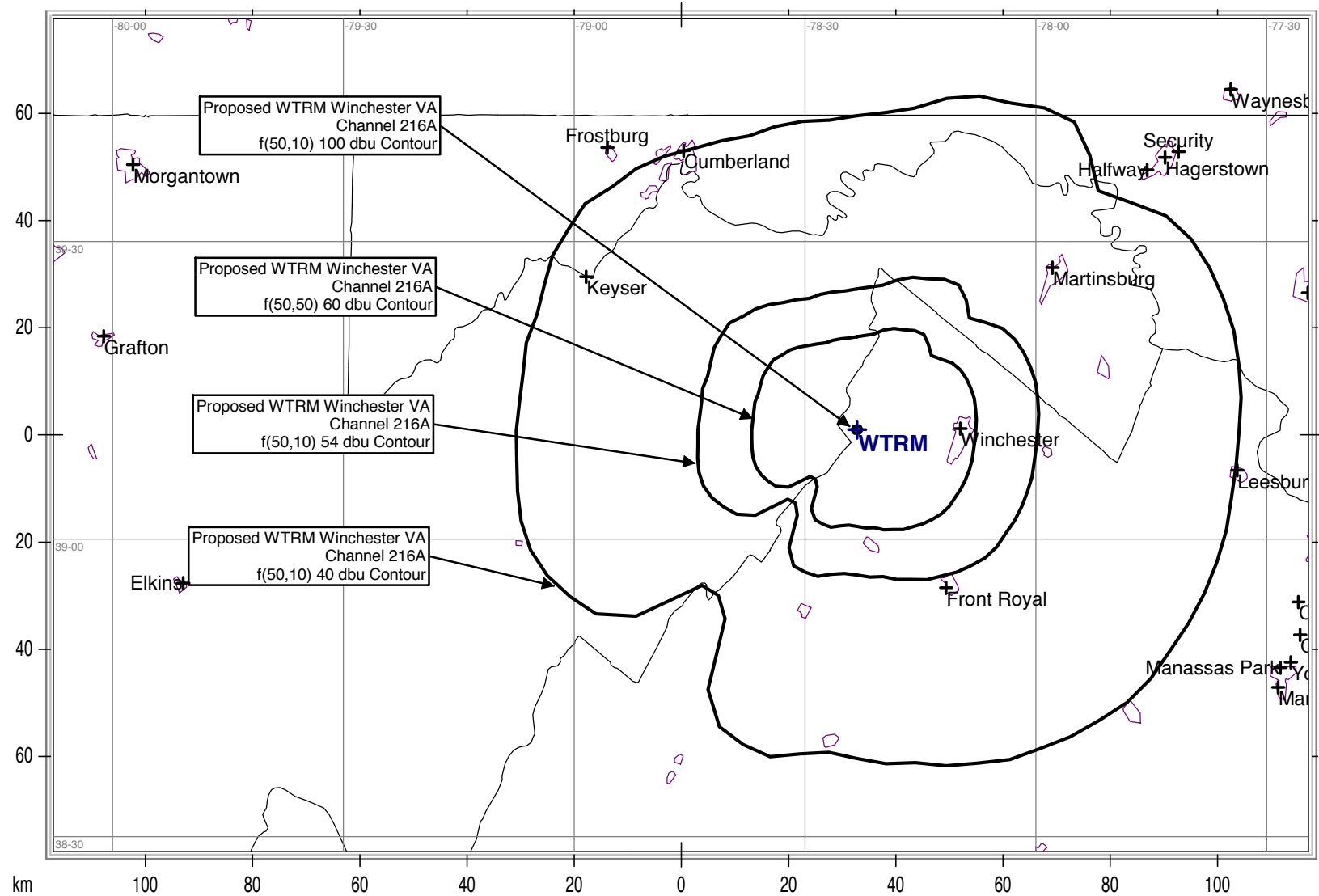
The facility proposed in the instant application is compliant with Section 73.509 regarding overlap of licenses, permits and pending applications.

Attached is a full channel study of the facility, as proposed, as well as the contour distances to each pertinent contour for the proposed directional antenna. This channel study includes a showing with respect to the proposed facilities modification to the facility of WARN, as proposed in the concurrently filed contingent application.

Also attached is a map showing the f(50,50) 60 dbu service and f(50,10) 54 dBu interfering contours of the first-adjacent channel proposed contingent facilities or WARN and the facility specified in the instant application. The map shows that there is no prohibited overlap between the contingent WARN proposed facilities and the concurrently-filed proposed facilities specified in the instant application.

TV Channel 6 Showing

The proposed facility operation on NCE reserved-band Channel 216. According to Title 47 CFR Section 73.525, the threshold distance from the proposed reserved band facility coordinates to the affected TV station for Channel 216 is 177 km. The nearest TV Channel 6 facility to the applicant's proposed facility is Facility ID 8616, WPVI-TV, Philadelphia, PA. The distance to the nearest WPVI-TV authorization is 286.41 kilometers. Thus the instant application is compliant with 73.525 with respect to TV Channel 6 regulations.



WTRM Ch 216 Service and Interfering Contour Report

Callsign : WTRM
 Coordinates : 39-11-02.0 N, 78-23-15.0 W
 Frequency (MHz): 91.10000
 HAAT (m): 440 AMSL (m): 812.00
 Elevation (m): 770.00 RCAGL (m): 42.00
 ERP (w): 75
 City/State : WINCHESTER, VA
 Licensee : AMERICAN FAMILY ASSOCIATION, INC.

Contour type : F(50,10)
 Signal strength : 54.000 dBu

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	337	475	26.3	90	293	519	33.7	180	288	524	27.2	270	393	419	29.7
5	334	478	26.7	95	296	516	33.6	185	310	502	27.0	275	399	413	29.5
10	321	491	27.4	100	296	516	33.6	190	306	506	27.5	280	399	413	29.5
15	306	506	28.9	105	290	522	33.8	195	299	513	28.4	285	391	421	29.8
20	300	512	30.3	110	288	524	33.9	200	323	489	28.3	290	396	416	29.6
25	307	505	31.1	115	286	526	34.0	205	365	447	28.1	295	385	427	30.1
30	298	514	32.5	120	286	526	34.0	210	459	353	25.5	300	370	442	30.7
35	298	514	33.0	125	288	524	33.9	215	617	195	19.5	305	368	444	30.8
40	348	464	31.6	130	283	529	34.1	220	652	160	17.9	310	363	449	31.0
45	397	415	29.6	135	276	536	33.9	225	646	166	18.3	315	365	447	30.0
50	358	454	31.2	140	280	532	33.2	230	512	300	24.9	320	353	459	29.5
55	310	502	33.0	145	272	540	32.5	235	446	366	27.5	325	343	469	28.5
60	288	524	33.9	150	267	545	31.6	240	415	397	28.8	330	336	476	27.4
65	279	533	34.3	155	256	556	31.0	245	388	424	29.9	335	333	479	26.8
70	276	536	34.4	160	259	553	29.8	250	374	438	30.6	340	329	483	26.1
75	274	538	34.5	165	257	555	29.0	255	374	438	30.6	345	326	486	26.2
80	280	532	34.2	170	263	549	27.9	260	382	430	30.2	350	328	484	26.1
85	285	527	34.0	175	271	541	27.7	265	391	421	29.8	355	340	472	26.0

WTRM Ch 216 Service and Interfering Contour Report

Contour type : F(50,50)
Signal strength : 60.000 dBu

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	337	475	17.4	90	293	519	22.2	180	288	524	18.1	270	393	419	19.7
5	334	478	17.7	95	296	516	22.1	185	310	502	17.9	275	399	413	19.5
10	321	491	18.1	100	296	516	22.1	190	306	506	18.2	280	399	413	19.5
15	306	506	19.3	105	290	522	22.2	195	299	513	18.9	285	391	421	19.7
20	300	512	20.1	110	288	524	22.3	200	323	489	18.8	290	396	416	19.6
25	307	505	20.6	115	286	526	22.3	205	365	447	18.5	295	385	427	19.9
30	298	514	21.4	120	286	526	22.3	210	459	353	17.1	300	370	442	20.2
35	298	514	21.7	125	288	524	22.3	215	617	195	13.0	305	368	444	20.2
40	348	464	20.7	130	283	529	22.4	220	652	160	12.1	310	363	449	20.3
45	397	415	19.6	135	276	536	22.3	225	646	166	12.4	315	365	447	19.7
50	358	454	20.5	140	280	532	21.9	230	512	300	16.7	320	353	459	19.4
55	310	502	21.7	145	272	540	21.4	235	446	366	18.5	325	343	469	18.9
60	288	524	22.3	150	267	545	20.9	240	415	397	19.2	330	336	476	18.1
65	279	533	22.5	155	256	556	20.6	245	388	424	19.8	335	333	479	17.7
70	276	536	22.6	160	259	553	19.9	250	374	438	20.1	340	329	483	17.2
75	274	538	22.6	165	257	555	19.3	255	374	438	20.1	345	326	486	17.3
80	280	532	22.5	170	263	549	18.6	260	382	430	19.9	350	328	484	17.2
85	285	527	22.4	175	271	541	18.4	265	391	421	19.7	355	340	472	17.2

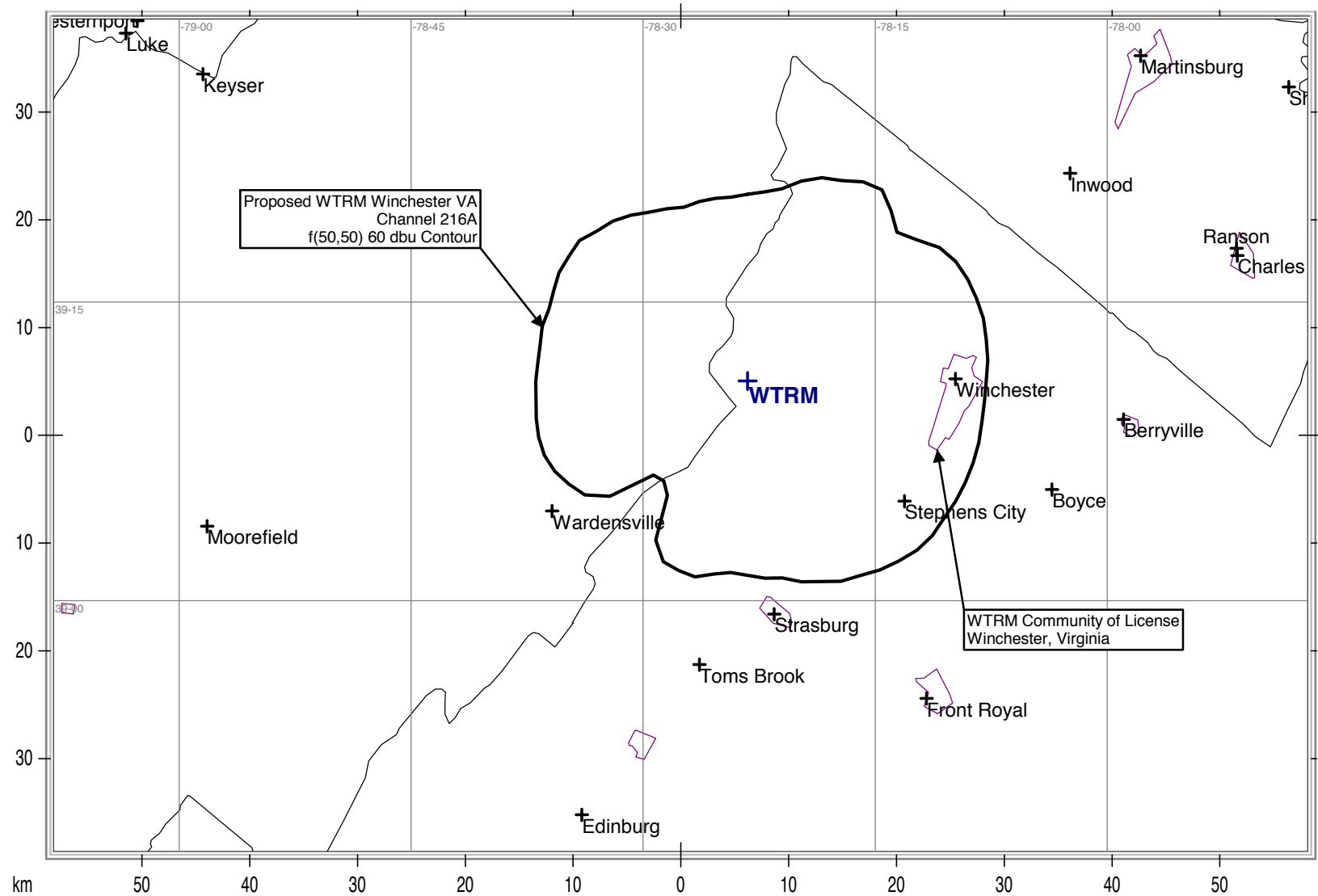
Contour type : F(50,10)
Signal strength : 100.000 dBu

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	337	475	0.7	90	293	519	0.8	180	288	524	0.6	270	393	419	0.8
5	334	478	0.7	95	296	516	0.8	185	310	502	0.7	275	399	413	0.8
10	321	491	0.7	100	296	516	0.8	190	306	506	0.7	280	399	413	0.8
15	306	506	0.7	105	290	522	0.8	195	299	513	0.7	285	391	421	0.8
20	300	512	0.7	110	288	524	0.8	200	323	489	0.7	290	396	416	0.8
25	307	505	0.8	115	286	526	0.8	205	365	447	0.7	295	385	427	0.8
30	298	514	0.8	120	286	526	0.8	210	459	353	0.8	300	370	442	0.8
35	298	514	0.8	125	288	524	0.8	215	617	195	0.8	305	368	444	0.8
40	348	464	0.8	130	283	529	0.8	220	652	160	0.8	310	363	449	0.8
45	397	415	0.8	135	276	536	0.8	225	646	166	0.8	315	365	447	0.8
50	358	454	0.8	140	280	532	0.8	230	512	300	0.8	320	353	459	0.8
55	310	502	0.8	145	272	540	0.8	235	446	366	0.8	325	343	469	0.7
60	288	524	0.8	150	267	545	0.7	240	415	397	0.8	330	336	476	0.7
65	279	533	0.8	155	256	556	0.7	245	388	424	0.8	335	333	479	0.7
70	276	536	0.8	160	259	553	0.7	250	374	438	0.8	340	329	483	0.6
75	274	538	0.8	165	257	555	0.7	255	374	438	0.8	345	326	486	0.6
80	280	532	0.8	170	263	549	0.6	260	382	430	0.8	350	328	484	0.6
85	285	527	0.8	175	271	541	0.6	265	391	421	0.8	355	340	472	0.7

WTRM Ch 216 Service and Interfering Contour Report

Contour type : F(50,10)
Signal strength : 40.000 dBu

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	337	475	58.7	90	293	519	71.3	180	288	524	61.5	270	393	419	63.6
5	334	478	59.5	95	296	516	71.1	185	310	502	60.5	275	399	413	63.2
10	321	491	61.0	100	296	516	71.1	190	306	506	61.5	280	399	413	63.2
15	306	506	64.1	105	290	522	71.6	195	299	513	63.3	285	391	421	63.8
20	300	512	66.4	110	288	524	71.7	200	323	489	62.6	290	396	416	63.4
25	307	505	67.4	115	286	526	71.8	205	365	447	61.2	295	385	427	64.2
30	298	514	69.5	120	286	526	71.8	210	459	353	56.0	300	370	442	65.4
35	298	514	70.2	125	288	524	71.7	215	617	195	43.1	305	368	444	65.5
40	348	464	67.1	130	283	529	72.0	220	652	160	40.4	310	363	449	65.9
45	397	415	63.3	135	276	536	71.8	225	646	166	41.1	315	365	447	64.3
50	358	454	66.3	140	280	532	70.8	230	512	300	54.1	320	353	459	63.8
55	310	502	70.0	145	272	540	69.9	235	446	366	59.7	325	343	469	62.4
60	288	524	71.7	150	267	545	68.7	240	415	397	62.1	330	336	476	60.7
65	279	533	72.3	155	256	556	68.0	245	388	424	64.0	335	333	479	59.6
70	276	536	72.5	160	259	553	66.3	250	374	438	65.1	340	329	483	58.4
75	274	538	72.6	165	257	555	65.0	255	374	438	65.1	345	326	486	58.6
80	280	532	72.2	170	263	549	63.2	260	382	430	64.5	350	328	484	58.5
85	285	527	71.9	175	271	541	62.7	265	391	421	63.8	355	340	472	58.1



WTRM winchester Channel 216 Report
ComStudy 2.2 search Channel 216A (91.1 MHz) 39-11-02.0 N, 78-23-15.0 W.

CALL	CITY	ST	CHN	CL	DIST	SEP	BRNG	CLEARANCE
WPVI-TV	PHILADELPHIA	PA	6	TV	286.41	0.00	69.5	0.0
WPVI-TV	PHILADELPHIA	PA	6	TV	286.41	0.00	69.5	0.0
WPVI-TV	PHILADELPHIA	PA	6	TV	286.41	0.00	69.5	0.0
WPVI-TV	PHILADELPHIA	PA	6	TV	286.63	0.00	69.5	0.0
WCRH	WILLIAMSPORT	MD	213	B	64.09	69.00	34.3	6.04 dB
WJYJ	FREDERICKSBURG	VA	213	B	161.62	69.00	146.6	38.52 dB
WJYJ	FREDERICKSBURG	VA	213	B	161.62	69.00	146.6	35.95 dB
WJYJ	FREDERICKSBURG	VA	213	B	161.62	69.00	146.6	35.95 dB
WMRA	HARRISONBURG	VA	214	B	84.38	69.00	215.4	11.55 dB
WMRA	HARRISONBURG	VA	214	B	84.58	69.00	215.2	14.57 dB
WVPM	MORGANTOWN	WV	215	B	131.31	113.00	296.2	29.13 dB
WJRC	LEWISTOWN	PA	215	A	171.30	72.00	25.5	37.32 dB
WVRI	CLIFTON FORGE	VA	215	B	192.45	113.00	222.6	35.76 dB
WETA	WASHINGTON	DC	215	B	115.42	113.00	103.4	15.55 dB
WVPM	MORGANTOWN	WV	215	B	131.31	113.00	296.2	10.89 dB
WHYY-FM	PHILADELPHIA	PA	215	B	286.58	113.00	69.5	39.54 dB
WETA	WASHINGTON	DC	215	B	113.45	113.00	106.3	10.44 dB
WETA	WASHINGTON	DC	215	B	113.45	113.00	106.3	8.68 dB
WETA	WASHINGTON	DC	215	B	113.45	113.00	106.3	2.54 dB
WZBT	GETTYSBURG	PA	216	A	123.87	115.00	53.4	13.04 dB
WMSS	MIDDLETOWN	PA	216	A	181.24	115.00	50.3	27.03 dB
WBUQ	BLOOMSBURG	PA	216	A	261.52	115.00	38.5	39.97 dB
WHFC	BEL AIR	MD	216	A	186.26	115.00	76.5	24.94 dB
WTJU	CHARLOTTESVILLE	VA	216	B1	133.69	143.00	183.6	4.89 dB
WDDE	DOVER	DE	216	A	249.80	115.00	93.4	32.07 dB
WUFR	BEDFORD	PA	216	B	124.33	178.00	352.7	0.00 dB
WSAJ-FM	GROVE CITY	PA	216	A	262.76	115.00	331.2	31.54 dB
WRMU-FM	ALLIANCE	OH	216	A	300.96	115.00	310.4	39.70 dB
WHCE	HIGHLAND SPRINGS	VA	216	A	204.94	115.00	152.8	24.31 dB
WMSS	MIDDLETOWN	PA	216	A	181.24	115.00	50.3	22.48 dB
WTJU	CHARLOTTESVILLE	VA	216	B	133.27	178.00	183.5	0.05 dB
WOKD-FM	DANVILLE	VA	216	C2	284.90	166.00	198.2	30.17 dB
WPGF	CARLISLE	PA	217	A	154.17	72.00	37.6	32.53 dB
WQAB	PHILIPPI	WV	217	B1	143.61	96.00	269.7	23.38 dB
WYEP-FM	PITTSBURGH	PA	217	B1	189.91	96.00	316.5	24.07 dB
WESM	PRINCESS ANNE	MD	217	B	258.98	113.00	113.9	33.22 dB
WARN	CULPEPER	VA	218	A	102.51	31.00	161.0	36.51 dB
WARN	CULPEPER	VA	218	A	88.19	31.00	156.7	31.21 dB
WBJC	BALTIMORE	MD	218	B	144.67	69.00	80.5	31.95 dB
WZXH	HAGERSTOWN	MD	219	A	66.83	31.00	62.3	21.50 dB
WEMC	HARRISONBURG	VA	219	A	89.94	31.00	208.6	32.16 dB
WEMC	HARRISONBURG	VA	219	A	89.94	31.00	208.6	28.34 dB

