

Non-Interference Compliance

Regarding Facility id 141281

Channel 298

Description of Exhibit 13 Contents

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.

Page 3 contains a tabulation of the vertical radiation pattern of the proposed antenna and the minimum ground clearance of the interfering contour based on this pattern.

Pages 4 through 6 include a tabulation of the vertical radiation pattern for the proposed antenna provided by the antenna manufacturer.

Page 7 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dBμ F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 8 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

Page 9 of this exhibit is an aerial photo of the vicinity surrounding the proposed translator's tower site.

Note: State Highway 571 lies within the zone of predicted interference. The is application provides 8.2m (26.9ft) ground clearance above the highway so a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

Application_id	File Number	Callsign	Contour at Tower	Min. Contour
1569173	BMLED20130828AAG	WKVP	55.1	55.1
1734557	BLFT20160727ACV	W300CZ	136.7	108.8
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				55.1

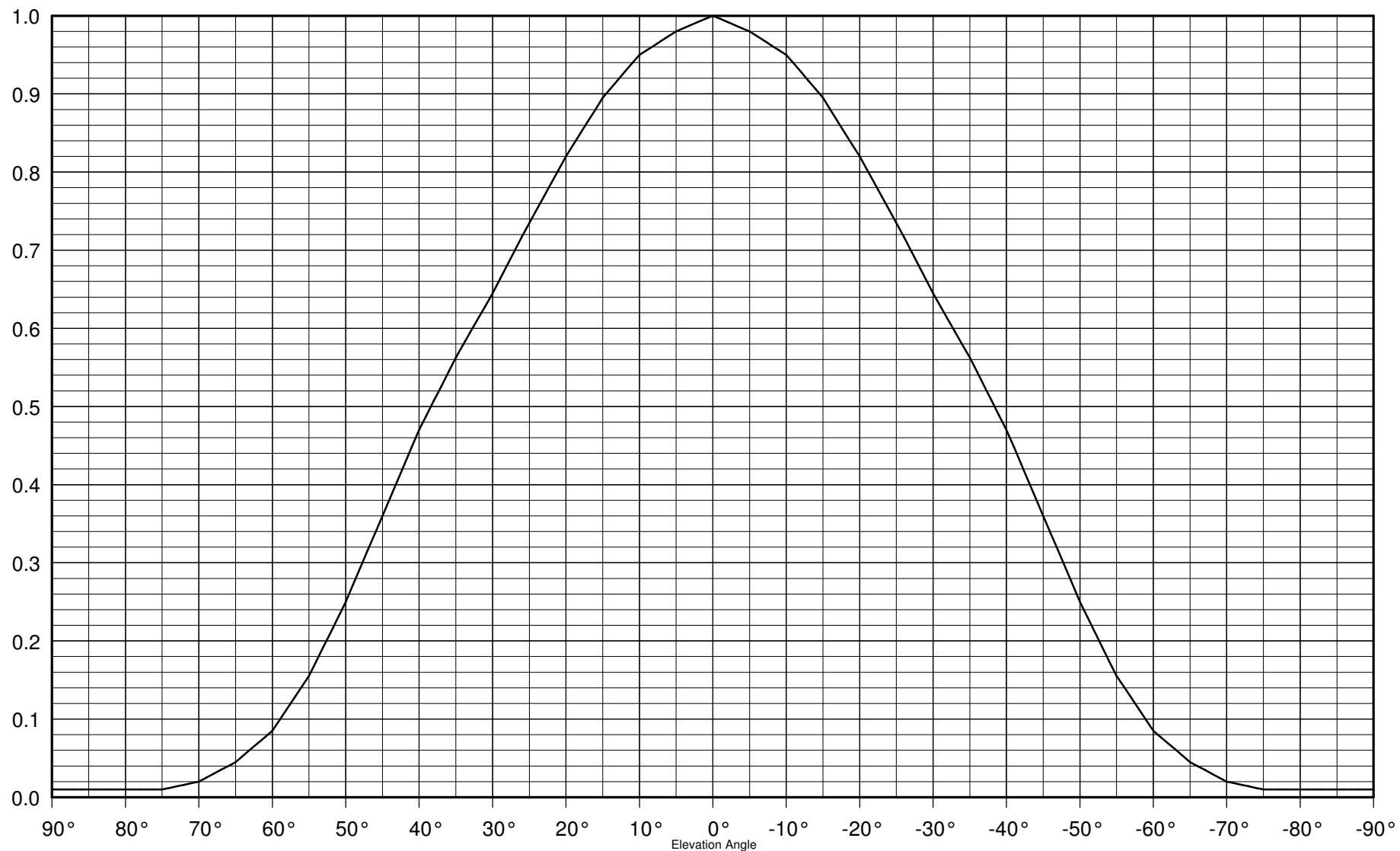
FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **55.1 dBμ**, this makes the proposed translator's worst-case interfering contour **95.1 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **246.6 m** from the transmit antenna.

The maximum horizontal plane of the interfering contour was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 8 of this exhibit). However, the field strength of the proposed translator's antenna varies with angle of depression from horizontal. The antenna relative fields are tabulated on the following page at 5 degree increments, starting at 5 degrees below horizontal. Antenna relative field strength data was provided and certified by the manufacturer of the proposed antenna. Using a free-space calculation that neglects any loss due to reflection, the vertical ground clearance of the proposed translator's interference contour has been tabulated. As shown on the following page, the area of interference clears the tower ground level (TGL) by **8.2 m** at the lowest point. The applicant has taken into account USGS quadrangles and relevant aerial photography in stating that no structures, except possibly tower support structures, puncture the area of interference.

Note: State Highway 571 lies within the zone of predicted interference. The is application provides 8.2m (26.9ft) ground clearance above the highway so a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Antenna Manufacturer:	SCA
Antenna Model:	CL-FM
CORAGL:	116 m
Maximum ERP:	0.004 kW
Interfering Contour:	95.1 dBμ
Max Int. Contour Distance:	246.6 m
Min Ground Clearance:	8.2 m

Depression Angle Below Horizontal	Antenna Relative Field	ERP (watts)	Distance to Interfering Contour from Antenna (m)	Horizontal Distance of Interfering Contour from Tower (m)	Vertical Clearance of Interfering Contour above TGL (m)
5	.993	3.9	244.9	244.0	94.7
10	.980	3.8	241.7	238.0	74.0
15	.952	3.6	234.8	226.8	55.2
20	.916	3.4	225.9	212.3	38.7
25	.873	3.0	215.3	195.1	25.0
30	.817	2.7	201.5	174.5	15.3
35	.756	2.3	186.4	152.7	9.1
40	.609	1.5	150.2	115.1	19.5
45	.618	1.5	152.4	107.8	8.2
50	.544	1.2	134.2	86.2	13.2
55	.467	0.9	115.2	66.1	21.7
60	.390	0.6	96.2	48.1	32.7
65	.300	0.4	74.0	31.3	48.9
70	.190	0.1	46.9	16.0	72.0
75	.110	0.0	27.1	7.0	89.8
80	.050	0.0	12.3	2.1	103.9
85	.030	0.0	7.4	0.6	108.6
90	.030	0.0	7.4	0.0	108.6
Minimum Clearance above TGL:					8.2 m



CL-FM/VRM/50N FM Log-Periodic Antenna

Max Gain: 7.0 dBd

Power-x: 5.0

Vertical Polarization

Vertical Plane Pattern



CL-FM/VRM/50N FM Log-Periodic Antenna
 Max Gain: 7.0 dBd
 Power-x: 5.0
 Vertical Polarization
 Vertical Plane Pattern



Angle	Field	Rel dB	PWR mult	dBd	Angle	Field	Rel dB	PWR mult	dBd
90	.010	-40.00	.00	-33.00	45	.360	-8.87	.65	-1.87
89	.010	-40.00	.00	-33.00	44	.382	-8.36	.73	-1.36
88	.010	-40.00	.00	-33.00	43	.404	-7.87	.82	-.87
87	.010	-40.00	.00	-33.00	42	.426	-7.41	.91	-.41
86	.010	-40.00	.00	-33.00	41	.448	-6.97	1.01	.03
85	.010	-40.00	.00	-33.00	40	.470	-6.56	1.11	.44
84	.010	-40.00	.00	-33.00	39	.488	-6.22	1.20	.78
83	.010	-40.00	.00	-33.00	38	.507	-5.90	1.29	1.10
82	.010	-40.00	.00	-33.00	37	.526	-5.59	1.38	1.41
81	.010	-40.00	.00	-33.00	36	.544	-5.29	1.48	1.71
80	.010	-40.00	.00	-33.00	35	.562	-5.00	1.59	2.00
79	.010	-40.00	.00	-33.00	34	.579	-4.75	1.68	2.25
78	.010	-40.00	.00	-33.00	33	.596	-4.50	1.78	2.50
77	.010	-40.00	.00	-33.00	32	.612	-4.26	1.88	2.74
76	.010	-40.00	.00	-33.00	31	.628	-4.03	1.98	2.97
75	.010	-40.00	.00	-33.00	30	.645	-3.81	2.09	3.19
74	.012	-38.42	.00	-31.42	29	.663	-3.57	2.20	3.43
73	.014	-37.08	.00	-30.08	28	.681	-3.34	2.32	3.66
72	.016	-35.92	.00	-28.92	27	.699	-3.11	2.45	3.89
71	.018	-34.89	.00	-27.89	26	.717	-2.89	2.58	4.11
70	.020	-33.98	.00	-26.98	25	.735	-2.67	2.71	4.33
69	.025	-32.04	.00	-25.04	24	.752	-2.48	2.83	4.52
68	.030	-30.46	.00	-23.46	23	.769	-2.28	2.96	4.72
67	.035	-29.12	.01	-22.12	22	.786	-2.09	3.10	4.91
66	.040	-27.96	.01	-20.96	21	.803	-1.91	3.23	5.09
65	.045	-26.94	.01	-19.94	20	.820	-1.72	3.37	5.28
64	.053	-25.51	.01	-18.51	19	.835	-1.57	3.49	5.43
63	.061	-24.29	.02	-17.29	18	.850	-1.41	3.62	5.59
62	.069	-23.22	.02	-16.22	17	.865	-1.26	3.75	5.74
61	.077	-22.27	.03	-15.27	16	.880	-1.11	3.88	5.89
60	.085	-21.41	.04	-14.41	15	.895	-.96	4.01	6.04
59	.099	-20.09	.05	-13.09	14	.906	-.86	4.11	6.14
58	.113	-18.94	.06	-11.94	13	.917	-.75	4.21	6.25
57	.127	-17.92	.08	-10.92	12	.928	-.65	4.32	6.35
56	.141	-17.02	.10	-10.02	11	.939	-.55	4.42	6.45
55	.155	-16.19	.12	-9.19	10	.950	-.45	4.52	6.55
54	.174	-15.19	.15	-8.19	9	.956	-.39	4.58	6.61
53	.193	-14.29	.19	-7.29	8	.962	-.34	4.64	6.66
52	.212	-13.47	.23	-6.47	7	.968	-.28	4.70	6.72
51	.231	-12.73	.27	-5.73	6	.974	-.23	4.75	6.77
50	.250	-12.04	.31	-5.04	5	.980	-.18	4.81	6.82
49	.272	-11.31	.37	-4.31	4	.984	-.14	4.85	6.86
48	.294	-10.63	.43	-3.63	3	.988	-.10	4.89	6.90
47	.316	-10.01	.50	-3.01	2	.992	-.07	4.93	6.93
46	.338	-9.42	.57	-2.42	1	.996	-.03	4.97	6.97

CL-FM/VRM/50N FM Log-Periodic Antenna
 Max Gain: 7.0 dBd
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 Vertical Plane Pattern

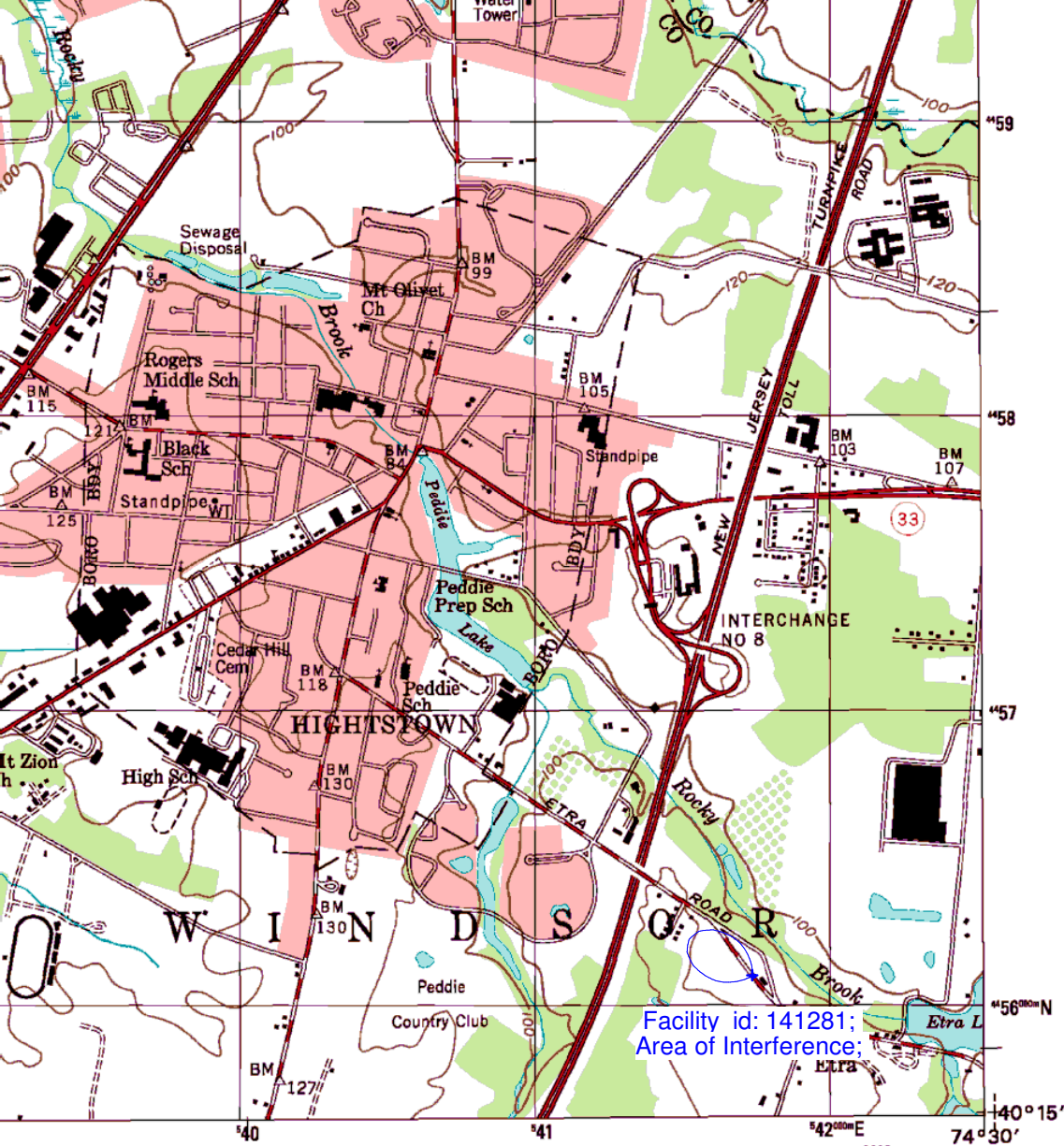


Angle	Field	Rel dB	PWR mult	dBd	Angle	Field	Rel dB	PWR mult	dBd
0	1.000	.00	5.01	7.00	-45	.360	-8.87	.65	-1.87
-1	.996	-.03	4.97	6.97	-46	.338	-9.42	.57	-2.42
-2	.992	-.07	4.93	6.93	-47	.316	-10.01	.50	-3.01
-3	.988	-.10	4.89	6.90	-48	.294	-10.63	.43	-3.63
-4	.984	-.14	4.85	6.86	-49	.272	-11.31	.37	-4.31
-5	.980	-.18	4.81	6.82	-50	.250	-12.04	.31	-5.04
-6	.974	-.23	4.75	6.77	-51	.231	-12.73	.27	-5.73
-7	.968	-.28	4.70	6.72	-52	.212	-13.47	.23	-6.47
-8	.962	-.34	4.64	6.66	-53	.193	-14.29	.19	-7.29
-9	.956	-.39	4.58	6.61	-54	.174	-15.19	.15	-8.19
-10	.950	-.45	4.52	6.55	-55	.155	-16.19	.12	-9.19
-11	.939	-.55	4.42	6.45	-56	.141	-17.02	.10	-10.02
-12	.928	-.65	4.32	6.35	-57	.127	-17.92	.08	-10.92
-13	.917	-.75	4.21	6.25	-58	.113	-18.94	.06	-11.94
-14	.906	-.86	4.11	6.14	-59	.099	-20.09	.05	-13.09
-15	.895	-.96	4.01	6.04	-60	.085	-21.41	.04	-14.41
-16	.880	-1.11	3.88	5.89	-61	.077	-22.27	.03	-15.27
-17	.865	-1.26	3.75	5.74	-62	.069	-23.22	.02	-16.22
-18	.850	-1.41	3.62	5.59	-63	.061	-24.29	.02	-17.29
-19	.835	-1.57	3.49	5.43	-64	.053	-25.51	.01	-18.51
-20	.820	-1.72	3.37	5.28	-65	.045	-26.94	.01	-19.94
-21	.803	-1.91	3.23	5.09	-66	.040	-27.96	.01	-20.96
-22	.786	-2.09	3.10	4.91	-67	.035	-29.12	.01	-22.12
-23	.769	-2.28	2.96	4.72	-68	.030	-30.46	.00	-23.46
-24	.752	-2.48	2.83	4.52	-69	.025	-32.04	.00	-25.04
-25	.735	-2.67	2.71	4.33	-70	.020	-33.98	.00	-26.98
-26	.717	-2.89	2.58	4.11	-71	.018	-34.89	.00	-27.89
-27	.699	-3.11	2.45	3.89	-72	.016	-35.92	.00	-28.92
-28	.681	-3.34	2.32	3.66	-73	.014	-37.08	.00	-30.08
-29	.663	-3.57	2.20	3.43	-74	.012	-38.42	.00	-31.42
-30	.645	-3.81	2.09	3.19	-75	.010	-40.00	.00	-33.00
-31	.628	-4.03	1.98	2.97	-76	.010	-40.00	.00	-33.00
-32	.612	-4.26	1.88	2.74	-77	.010	-40.00	.00	-33.00
-33	.596	-4.50	1.78	2.50	-78	.010	-40.00	.00	-33.00
-34	.579	-4.75	1.68	2.25	-79	.010	-40.00	.00	-33.00
-35	.562	-5.00	1.59	2.00	-80	.010	-40.00	.00	-33.00
-36	.544	-5.29	1.48	1.71	-81	.010	-40.00	.00	-33.00
-37	.526	-5.59	1.38	1.41	-82	.010	-40.00	.00	-33.00
-38	.507	-5.90	1.29	1.10	-83	.010	-40.00	.00	-33.00
-39	.488	-6.22	1.20	.78	-84	.010	-40.00	.00	-33.00
-40	.470	-6.56	1.11	.44	-85	.010	-40.00	.00	-33.00
-41	.448	-6.97	1.01	.03	-86	.010	-40.00	.00	-33.00
-42	.426	-7.41	.91	-.41	-87	.010	-40.00	.00	-33.00
-43	.404	-7.87	.82	-.87	-88	.010	-40.00	.00	-33.00
-44	.382	-8.36	.73	-1.36	-89	.010	-40.00	.00	-33.00

Adjacent Channel Study **For Station W300CZ, Facility_id: 141281**

Co-channel through third adjacent:

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
1569173	20842	BMLED-20130828AA	WKVP	EDUCATIONAL MEDIA FOUNDAT	B	CAMDEN	NJ	LIC	38	185	295	3	63.2	0.0143
19767	71694	BLED-19800422AA	WWPH	WEST WINDSOR-PLAINSBORO F	D	PRINCETON JUNC	NJ	LIC	0.017	44	300	2	11.1	0
179527	6109	BLED-19921202KF	WRRR	BOARD OF TRUSTEES OF RIDER	D	LAWRENCEVILLE	NJ	LIC	0.02	50	299	1	19.6	0
188915	41191	BLFT-19930806TD	W300AC	RADIO SHARON FOUNDATION	D	CHATSWORTH, E	NJ	LIC	0.035	96	300	2	43.5	0
1136427	32983	BLH-20060711ACK	WWZY	PRESS COMMUNICATIONS, LLC	A	LONG BRANCH	NJ	LIC	5	123	296	2	44.8	0
1069085	12211	BLH-20050622AAL	WPPZ-FM	RADIO ONE LICENSES, LLC	A	PENNSAUKEN	NJ	LIC	0.78	304	300	2	65.3	0
1250421	7929	BLFT-20080616AAO	W297AD	BUX-MONT EDUCATIONAL RADIC	D	PHILADELPHIA	PA	LIC	0.02	74	297	1	66.5	0
194670	28203	BLH-19940204KN	WBLS	WBLS-WLIB LICENSE LLC	B	NEW YORK	NY	LIC	4.2	429	298	0	70.5	0
1675006	54689	BPH-20150303ABT	WWYY	CONNOISSEUR MEDIA LICENSES	A	BELVIDERE	NJ	CP	0.84	473	296	2	94.7	0
573902	54689	BMLH-20010716AAK	WWYY	CONNOISSEUR MEDIA LICENSES	A	BELVIDERE	NJ	LIC	1.2	426	296	2	94.7	0
1027926	71310	BLH-20041116ABG	WBYN-FM	WDAC RADIO COMPANY	B	BOYERTOWN	PA	LIC	30	358	298	0	98.3	0



INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA - 2000

ROAD CLASSIFICATION

Primary highway hard surface	Light-duty road, hard or improved surface
Secondary highway hard surface	Unimproved road

Interstate Route
 U.S. Route
 State Route



QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 Rocky Hill
 2 Monmouth Junction
 3 New Brunswick
 4 Princeton
 5 Jamesburg
 6 Trenton East
 7 Allentown
 8 Roosevelt

ADJOINING 7.5' QUADRANGLE NAMES

HIGHTSTOWN, NJ

1995

NIMA 6064 I SE-SERIES V822



