

ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
FM STATION WXLK
ROANOKE, VIRGINIA
FACILITY ID 9692

October 9, 2003

CH 222C

93KW (MAX-DA)

625 M

ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
FM STATION WXLK
ROANOKE, VIRGINIA
FACILITY ID 9692
93 KW (MAX-DA)

CH 222C

625 M

Table of Contents

	Engineering Statement
Figure 1	Tabulation of Proposed Directional Antenna Pattern Envelope
Figure 2	Plot of Proposed Directional Antenna Pattern Envelope
Figure 3	Proposed Coverage Contours
Figure 4	Tabulation of Distances to Pertinent Stations
Figure 5	Map Showing WXLK Allocation Situation

ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
FM STATION WXLK
ROANOKE, VIRGINIA
FACILITY ID 9692
CH 222C 93 KW (MAX-DA) 625 M

Engineering Statement

The Engineering Exhibit of which this Statement is part, was prepared on behalf of Mel Wheeler, Inc., licensee of FM broadcast station WXLK Roanoke, Virginia. Station WXLK operates on FM channel 222C employing effective radiated power (ERP) of 93 kilowatts with antenna height above average terrain (HAAT) of 625 meters. Station WXLK seeks to modify the directional antenna pattern envelope employed by the station. No other changes are contemplated.

The geographic coordinates for the transmitting location have been changed slightly to comport with the geographic coordinates shown in Tower Registration Number 1028319.

The proposed directional antenna pattern envelope is shown in tabular form in Figure 1 and in graphical form in Figure 2. Through the bearings of 90 degrees clockwise through 240 degrees true, the proposed directional antenna pattern is identical to the pattern on file with the FCC.

The predicted 70 dBu and 60 dBu coverage contours for the proposed operation are shown on Figure 3. Station WXLK will continue to provide a signal level in excess of 70 dBu to all of Roanoke.

Distances to pertinent stations are shown in Figure 4. As will be noted, WXLK is currently short-spaced with Class D station WWHS-FM, Class C station WKRR and to

existing and proposed station WYFL. As WWHS-FM operates as a Class D station, further consideration regarding separations is not required. As shown on the allocation map, Figure 5, there is overlap of pertinent contours between WXLK and short-spaced station WKRR. Station WKRR is licensed for operation on channel 222C. The proposed change in directional antenna pattern does not change the existing contour overlap between WXLK and WKRR.

Pertinent contours of existing and proposed WXLK and the existing and proposed operation of short-spaced station WYFL Henderson, NC are also shown on Figure 5. There is no change in the WXLK contours in pertinent directions toward WYFL.

The WXLK directional antenna pattern envelope change does not impact environmental considerations in any way, including potential exposure of humans to radiofrequency radiation.



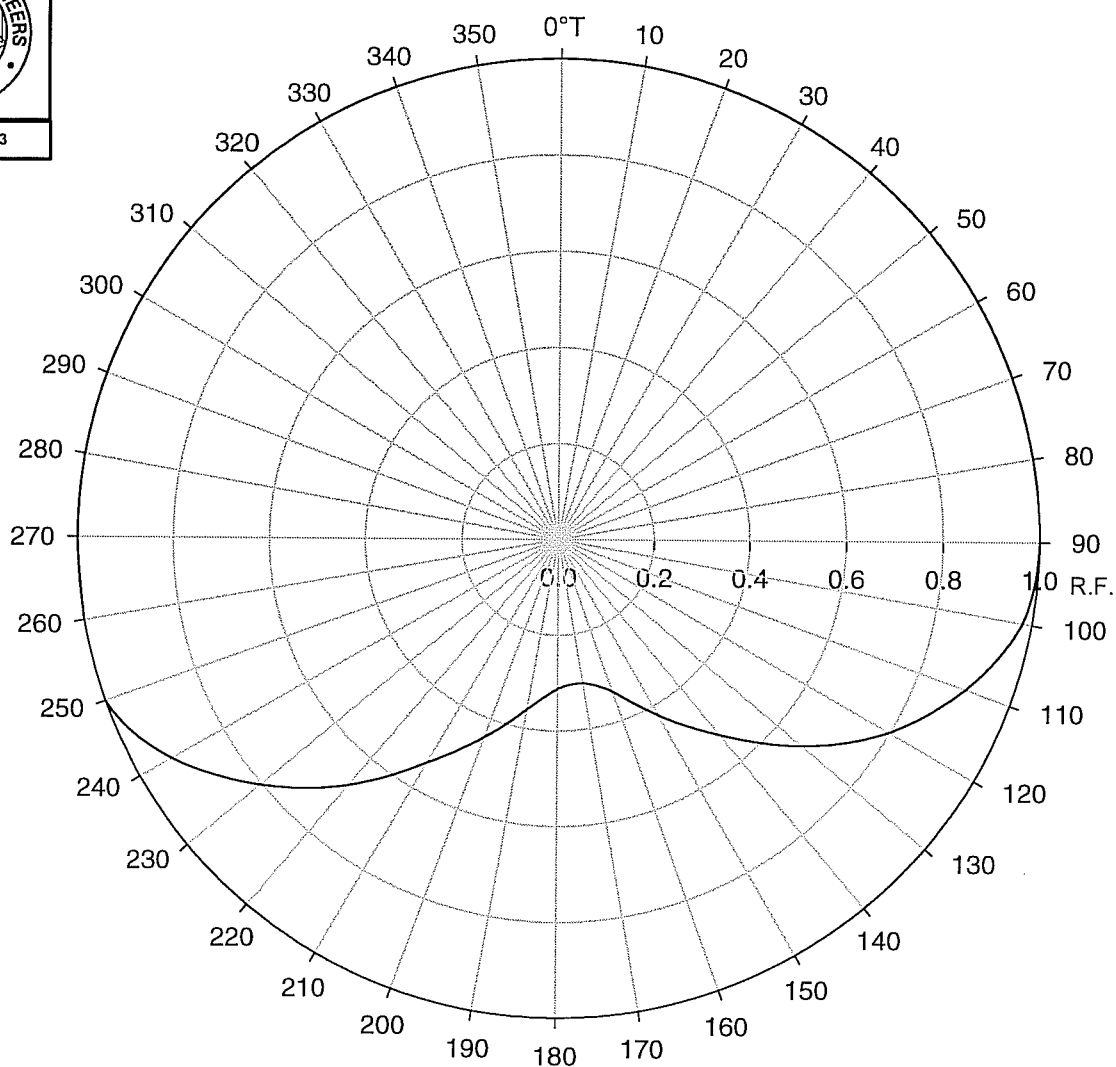
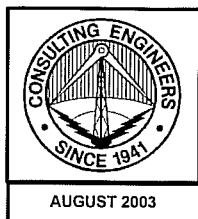
Louis R. du Treil, Sr.
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237-6019
941 329 6000

October 9, 2003

ENGINEERING EXHIBIT
 APPLICATION FOR CONSTRUCTION PERMIT
 FM STATION WXLK
 ROANOKE, VIRGINIA
 FACILITY ID 9692
 CH 222C 93 KW (MAX-DA) 625 M

Proposed Directional Antenna Pattern Envelope

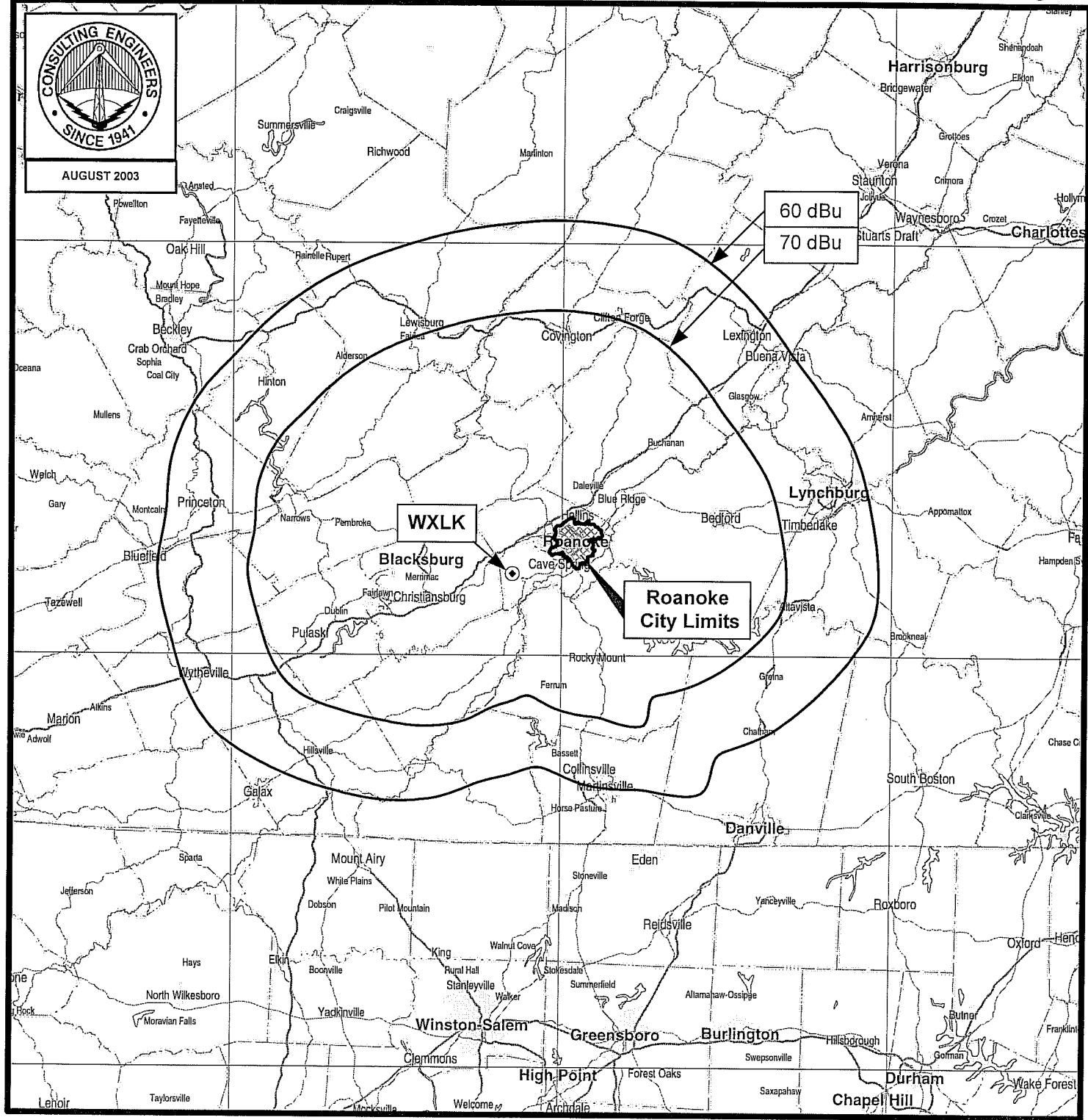
<u>Azimuth</u> <u>(deg. True)</u>	<u>Relative</u> <u>Field</u>	<u>Azimuth</u> <u>(deg. True)</u>	<u>Relative</u> <u>Field</u>
0	1.000	180	0.312
10	1.000	190	0.360
20	1.000	200	0.440
30	1.000	210	0.540
40	1.000	220	0.673
50	1.000	230	0.803
60	1.000	240	0.923
70	1.000	250	1.000
80	1.000	260	1.000
90	0.998	270	1.000
100	0.979	280	1.000
110	0.902	290	1.000
120	0.798	300	1.000
130	0.666	310	1.000
140	0.530	320	1.000
150	0.422	330	1.000
160	0.337	340	1.000
170	0.304	350	1.000



RELATIVE FIELD PATTERN ENVELOPE

FM STATION WXLK
ROANOKE, VIRGINIA
CH 222C 93 KW (MAX-DA) 625 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



PREDICTED COVERAGE CONTOURS

FM STATION WXLK
ROANOKE, VIRGINIA
CH 222C 93 KW (MAX-DA) 625 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 4
Sheet 1 of 2

ENGINEERING EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
FM STATION WXLK
ROANOKE, VIRGINIA
FACILITY ID 9692

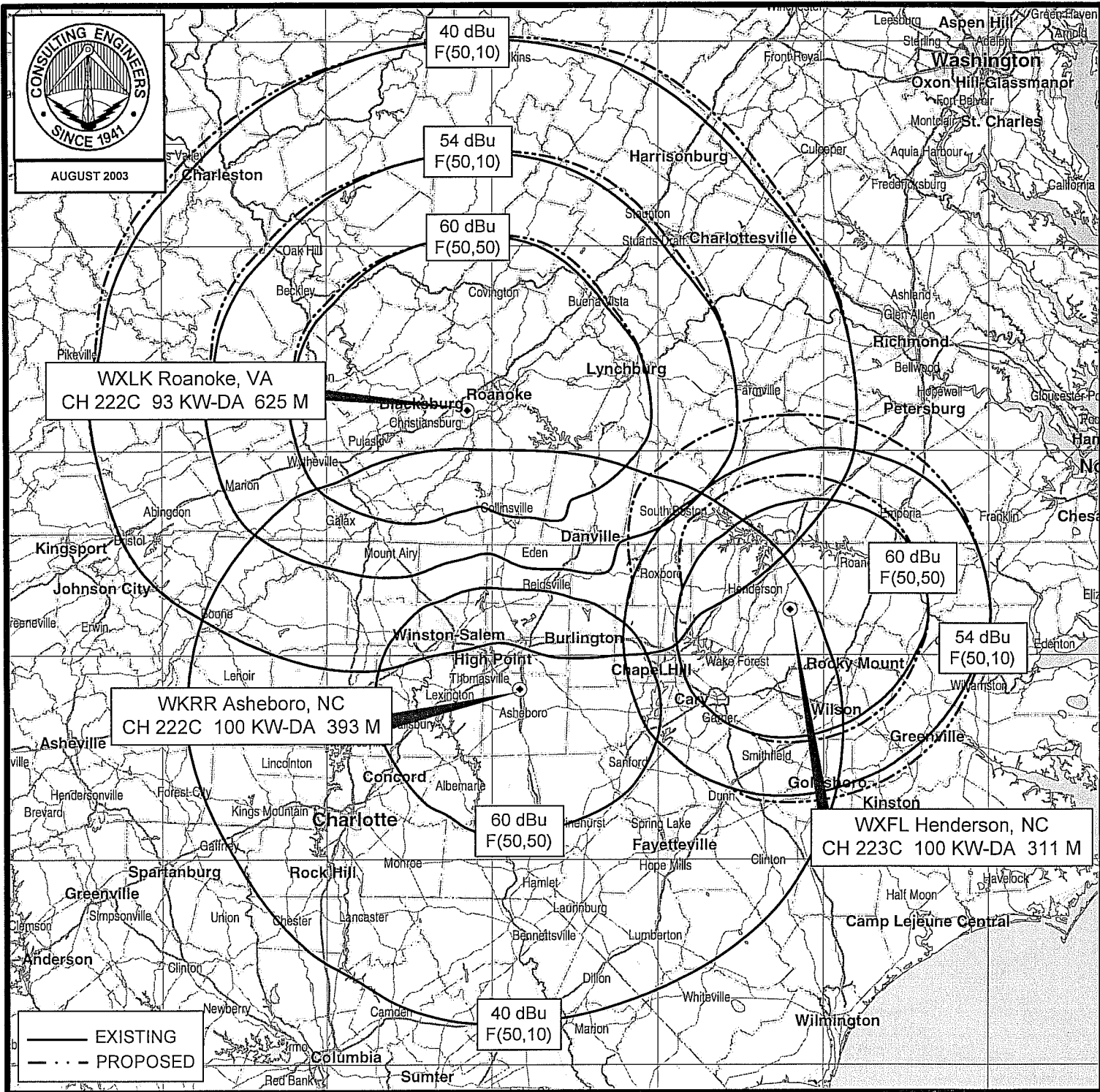
CH 222C 93 KW (MAX-DA) 625 M

Tabulation of Distances to Pertinent Stations
37-11-56 N 80-09-01 W

Call Id	City St	Status	File Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	(km) 207
960328 81316	RUSTBURG VA	APP C	BPED 19960328MD	219 A 91.7	1.150 228	N	37-17-07 079-05-26	N	83.8	94.52 -0.48	95.0 Short
950628 76902	LYNCHBURG VA	APP C	BPED 19950628MA	219 C3 91.7	2.200 203	N	37-28-07 079-00-27	N	73.1	105.61 9.61	96.0 Close
WVPB 71689	BECKLEY WV	LIC C	BLED 19840615CB	219 B 91.7	10.500 280	N	37-53-46 080-59-21	N	316.6	107.16 2.16	105.0 Close
WVTR 70340	MARION VA	LIC C	BLED 19911030KA	220 C2 91.9	4.500 454	Y 14055	36-44-52 081-18-15	N	244.3	114.29 9.29	105.0 Close
WWHS-F 25905	HAMPDEN-SYD VA	LIC C	BLED 19971027KD	221 D 92.1	0.010 66	N	37-14-23 078-27-48	N	87.7	149.80 -11.20	161.0 Short
WDIC-F 16905	CLINCHCO VA	RSV C		221 C3 92.1	0.000		37-21-48 082-21-56		276.0	197.31 21.31	176.0 Clear
WVWC 71674	BUCKHANNON WV	LIC C	BLED 19810908AF	221 D 92.1	0.013 -21	N	38-59-24 080-13-10	N	358.3	198.90 37.90	161.0 Clear
WDIC-F 16905	CLINCHCO VA	LIC C	BLH 19920212KE	221 A 92.1	2.500 154	N	37-08-42 082-23-22	N	268.9	198.96 33.96	165.0 Clear
WDIC-F 16905	CLINCHCO VA	APP C	BPH 20010502AAN	221 C3 92.1	12.000 154	Y 39749	37-08-42 082-23-22	Y	268.9	198.96 22.96	176.0 Clear
WDIC-F 16905	CLINCHCO VA	APP C	BPH 20010502AAN	221 C3 92.1	12.000 154	Y 41072	37-08-42 082-23-22	Y	268.9	198.96 22.96	176.0 Clear
WMNC-F 13832	MORGANTON NC	LIC C	BMLH 19900123KC	221 A 92.1	6.000 100	N	35-45-09 081-43-19	N	221.6	213.54 48.54	165.0 Clear
WCDX 60473	MECHANICSVI VA	LIC C	BLH 19960117KA	221 B1 92.1	4.500 235	N	37-36-52 077-30-56	Y	78.0	237.79 44.79	193.0 Clear

Figure 4
Sheet 2 of 2

WXLK 9692	ROANOKE VA LIC C	BLH 19860723KC	222 C 92.3	93.000 625	Y 13709	37-11-56 080-09-03	N	270.0	0.05 -289.95	290.0 Short
WKRR 16892	ASHEBORO NC LIC C	BLH 19851227KB	222 C 92.3	100.000 393	Y 13673	35-49-59 079-50-02	N	169.4	154.19 -135.81	290.0 Short
WZAQ 38568	LOUISA KY LIC C	BLH 19910530KA	222 A 92.3	4.500 115	N	38-10-33 082-37-39	N	297.2	243.93 17.93	226.0 Clear
WWHC 49936	OAKLAND MD LIC C	BMLH 19910318KH	222 A 92.3	1.400 210	N	39-26-41 079-31-42	N	12.1	255.15 29.15	226.0 Clear
WZAC-F 53501	DANVILLE WV LIC C	BLH 19891018KE	223 A 92.5	0.610 212	N	38-05-01 081-48-17	N	304.5	175.97 10.97	165.0 Close
WYFL 5100	HENDERSON NC LIC C	BLH 19870918KB	223 C 92.5	100.000 311	Y 13798	36-13-23 078-12-07	N	121.4	205.01 -35.99	241.0 Short
WYFL 5100	HENDERSON NC CP C	BPH 20011015AAF	223 C0 92.5	100.000 311	Y 44326	36-13-23 078-12-07	N	121.4	205.01 -14.99	220.0 Short
WPMW 60598	MULLENS WV LIC C	BLH 19860428KC	224 A 92.7	1.650 135	N	37-35-39 081-23-49	N	292.1	118.79 23.79	95.0 Clear
WCWV 54368	SUMMERSVILL WV LIC C	BLH 19830328AL	225 B 92.9	11.000 274	N	38-21-37 080-38-49	N	341.5	136.13 31.13	105.0 Clear
WKCJ 59675	LEWISBURG WV LIC C	BLH 20000626AFN	276 B1 103.1	3.300 273	Y 16008	37-47-54 080-30-56	Y	334.3	73.96 42.96	31.0 Clear



ALLOCATION STUDY

FM STATION WXLK
ROANOKE, VIRGINIA
CH 222C 93 KW (MAX-DA) 625 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida