

STU-COMM, INC.

WNRN

CHARLOTTESVILLE, VIRGINIA

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STU-COMM, INC.

WNRN

CHARLOTTESVILLE, VIRGINIA

NARRATIVE

The purpose of this minor change application for WNRN is to install a directional antenna and increase power. There is no change in the tower or the antenna elevations. All engineering attachments are in this exhibit in the order shown on the Table of Exhibits preceding this narrative.

A Channel Study follows this narrative. Attached to the channel study are contour maps that demonstrate clearance to WCDX, channel 221B1, Mechanicsville, Virginia; WWEM, channel 219C1, Rustburg, Virginia; WEMC, channel 219A, Harrisonburg, Virginia; and WGTS, channel 220B, Takoma Park, Maryland.

As shown on the Channel Study, this application would be in conflict with a construction permit for WEMC, channel 219B at Harrisonburg. Unless it has been withdrawn, or cancelled, the authorization expired at 3:00 AM on February 11, 2011.

An RFR study and tower sketch showing all tenants on the tower follows the contour maps.

Using the NGDC 30 second terrain data base and eight radials, the eight radial HAAT is 325 meters. The 60 dBu contour using 0.56 kilowatt at 325 meters is 28.37 kilometers which rounds to 28 kilometers, the class distance for a class A station.

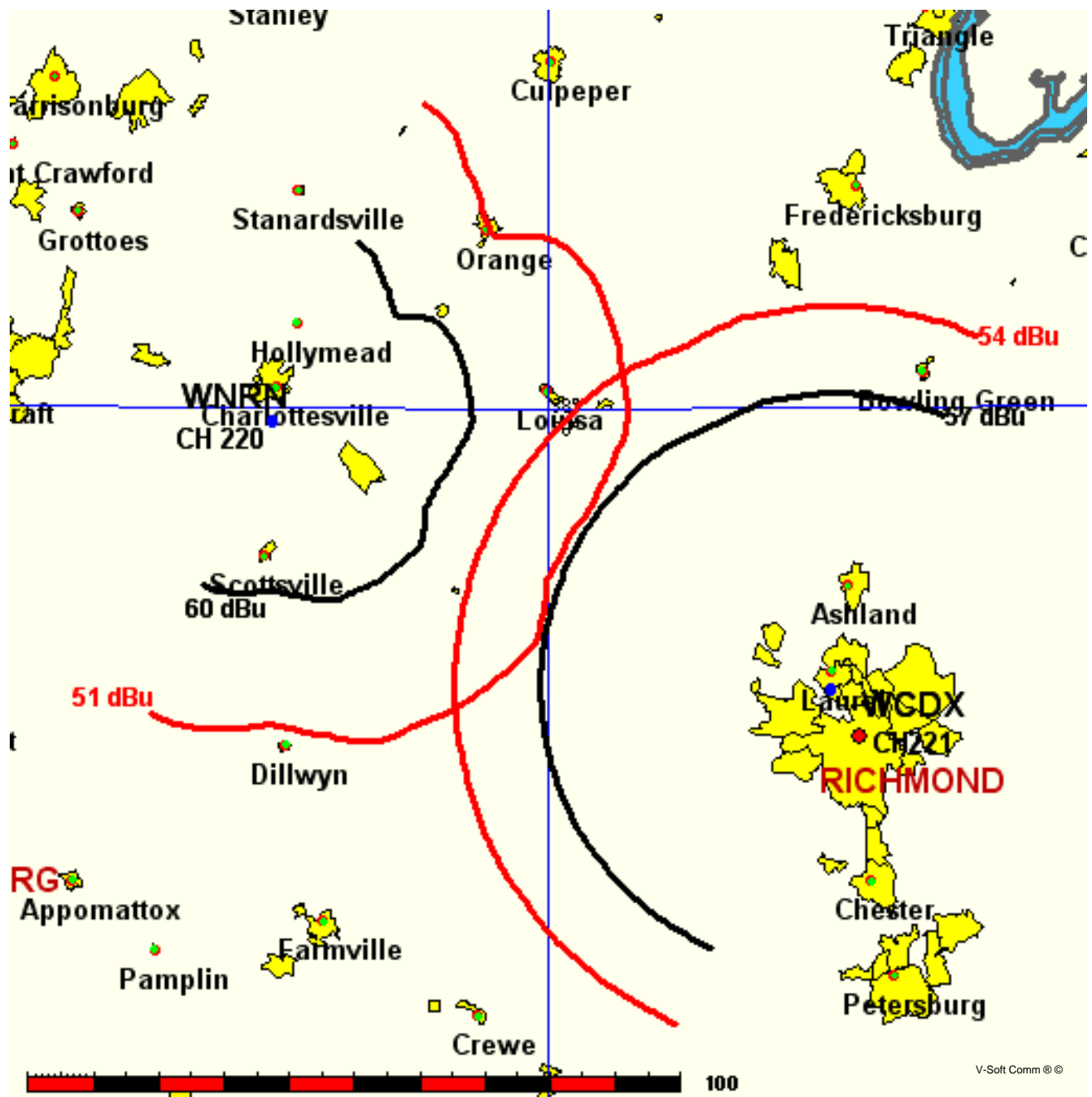
Since implementation of this application will not require any change of the tower or surrounding land, a NEPA study should not be required.

Stu-comm, Inc., WNRN, CHARLOTTESVILLE, VIRGINIA												
Power Increase February 2011 560 Watts Directional Antenna												
CH# 220A - 91.9 MHz, Pwr= 0.56 kW DA, HAAT= 325.0 M, COR= 493 M												
Average Protected F(50-50)= 28.35 km												
Standard Directional												
DISPLAY DATES												
DATA 02-12-11												
SEARCH 02-12-11												
REFERENCE	CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kW)	INT(km)	PRO(km)	*IN*	*OUT*
37 58 55.0 N.			STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
78 29 03.0 W.												
	220A	WNRN	LIC	NCN	0.0	0.0	37 58 55.0	0.320	76.5	26.0	-106.2*<	-109.6*<
	Charlottesville		VA		0.0	BLED19970121KB	78 29 03.0	325	493	Stu-comm, Inc.		
* 219B	WEMC	CP	DCX	327.9	76.1		38 33 40.0	9.500	54.0	38.5	-4.0*<	-2.5*<
Harri sonburg		VA		147.6	BPED20070907AAU		78 56 56.0	199	715	Board Of Trustees Of Easte		
219C1	WWEM	APP	DCX	205.9	78.8		37 20 36.0	100.000	51.2	37.0	0.5	2.8
Rustburg		VA		25.6	BPED20101110ABZ		78 52 24.9	126	338	Educational Media Corporat		
219A	WEMC	LIC	_CN	327.6	64.6		38 28 20.0	1.850	31.2	21.1	5.1	0.5
Harri sonburg		VA		147.3	BLED19940707KB		78 52 57.0	58	506	Board Of Trustees Of Easte		
221B1	WCDX	LIC	NCN	115.4	94.6		37 36 52.0	4.500	57.5	44.4	9.0	1.0
Mechani csvi lle		VA		295.9	BLH19960117KA		77 30 56.0	235	295	Radio One Licenses, Lic		
220B	WGTS	LIC	_CX	48.9	155.4		38 53 30.0	23.500	123.0	47.7	3.5	31.0
Takoma Park		MD		229.8	BMLED20070501AAA		77 07 55.0	186	252	Wgts/columbia Uni on Colleg		
219A	WWEM	LIC	_C_	214.8	94.0		37 17 07.0	1.150	42.6	29.5	24.0	23.5
Rustburg		VA		34.4	BLED20071210ABQ		79 05 26.0	228	464	Educational Media Corporat		
220B1	WFWM	LIC	NEN	348.7	181.2		39 34 54.0	1.300	120.6	48.5	31.2	49.8
Frostburg		MD		168.5	BLED19970825KA		78 53 53.0	434	913	Frostburg State University		
220C1	NEW	CP	DCX	200.6	165.6		36 35 03.0	100.000	111.9	42.1	31.7	48.1
Milton		NC		20.2	BNPED20071015AGV		79 08 14.0	67	213	Solid Foundation Broadcast		
220B	WGTS	APP	_HX	48.7	170.8		38 59 12.0	27.000	104.7	37.3	37.5	60.1
Takoma Park		MD		229.6	BXMLED20051114ALY		77 00 04.0	50	117	Wgts/columbia Uni on Colleg		
218A	WARN	LIC	_C_	39.5	68.2		38 27 15.0	0.930	1.6	10.0	39.7	56.6
Cul peper		VA		219.8	BMLED20000918AGH		77 59 10.0	37	157	American Family Associatio		
217B1	1410005	APP	DCX	110.2	77.5		37 44 18.7	0.650	1.6	9.1	48.8	66.8
Montpelier		VA		290.7	BNPED20071016AIY		77 39 32.4	50	122	Synergy Project, Inc.		
217A	WMLU	LIC	_E_	174.1	76.4		37 17 50.0	0.150	0.9	6.2	49.0	68.6
Farmville		VA		354.1	BLED20000731AAN		78 23 42.0	22	145	Longwood University		
220A	NEW	CP	ZCX	142.3	155.8		36 52 06.0	6.000	76.4	21.8	50.2	52.1
Jarratt		VA		322.9	BNPED20071019BAT		77 24 43.0	48	86	Roanoke Valley Communicati		
274C1	WJJX«	RSV	_N	200.9	77.2		37 19 55.0	100.000	0.0	0.0	21.5R	55.7M
Appomattox		VA		20.7			78 47 45.0	299	506	Capstar Tx Lic		
223B	WINC-FM«	LIC	_CN	20.1	115.3		38 57 21.0	22.000	6.8	55.8	68.5R	46.8M
Winchester		VA		200.4	BLH19910930KD		78 01 28.0	434	706	Centennial Licensing Li, L		
220A	WBHZ	LIC	_CN	308.6	160.1		38 52 18.0	0.275	68.4	22.8	63.6	57.8
Elkins		WV		127.7	BLED19990107KB		79 55 39.0	341	1057	American Family Associatio		
274B	WJJX«	LIC	_CN	219.0	73.3		37 28 07.0	22.000	0.0	0.0	14.5R	58.8M
Appomattox		VA		38.7	BLH19890602KC		79 00 27.0	227	439	Capstar Tx Lic		
218A	WLUR	LIC	_CX	256.5	87.2		37 47 42.0	0.175	0.9	6.5	59.3	79.1
Lexington		VA		75.9	BLED20060309ACD		79 26 49.0	-51	353	Washington And Lee Univers		
06+T	WDCN-LP	CP	D_N	48.7	155.4		38 53 45.0	3.000	6.1	22.6	153.5R	1.9M
Fairfax		VA		229.6	BPTVL20090416ARB		77 08 08.0	182	198	Signal Above Lic		
06ZT	WDCN-LP	LI	D_N	48.7	155.4		38 53 45.0	3.000	6.1	18.9	153.5R	1.9M
Fairfax		VA		229.6	BLTVL20070410ACR		77 08 08.0	182	198	Signal Above Lic		

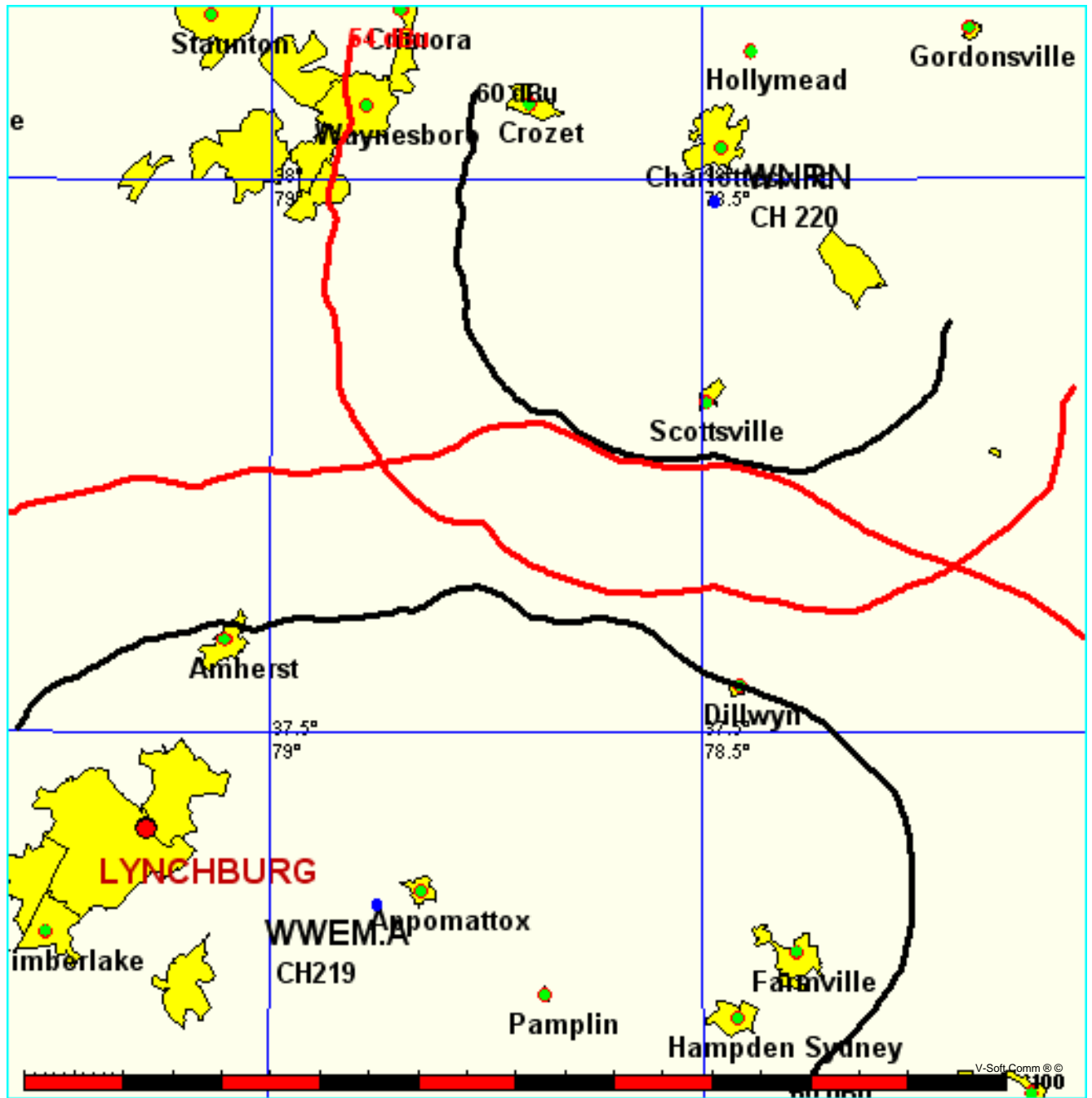
Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone = 1, Co to 3rd adjacent.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside protected contour.

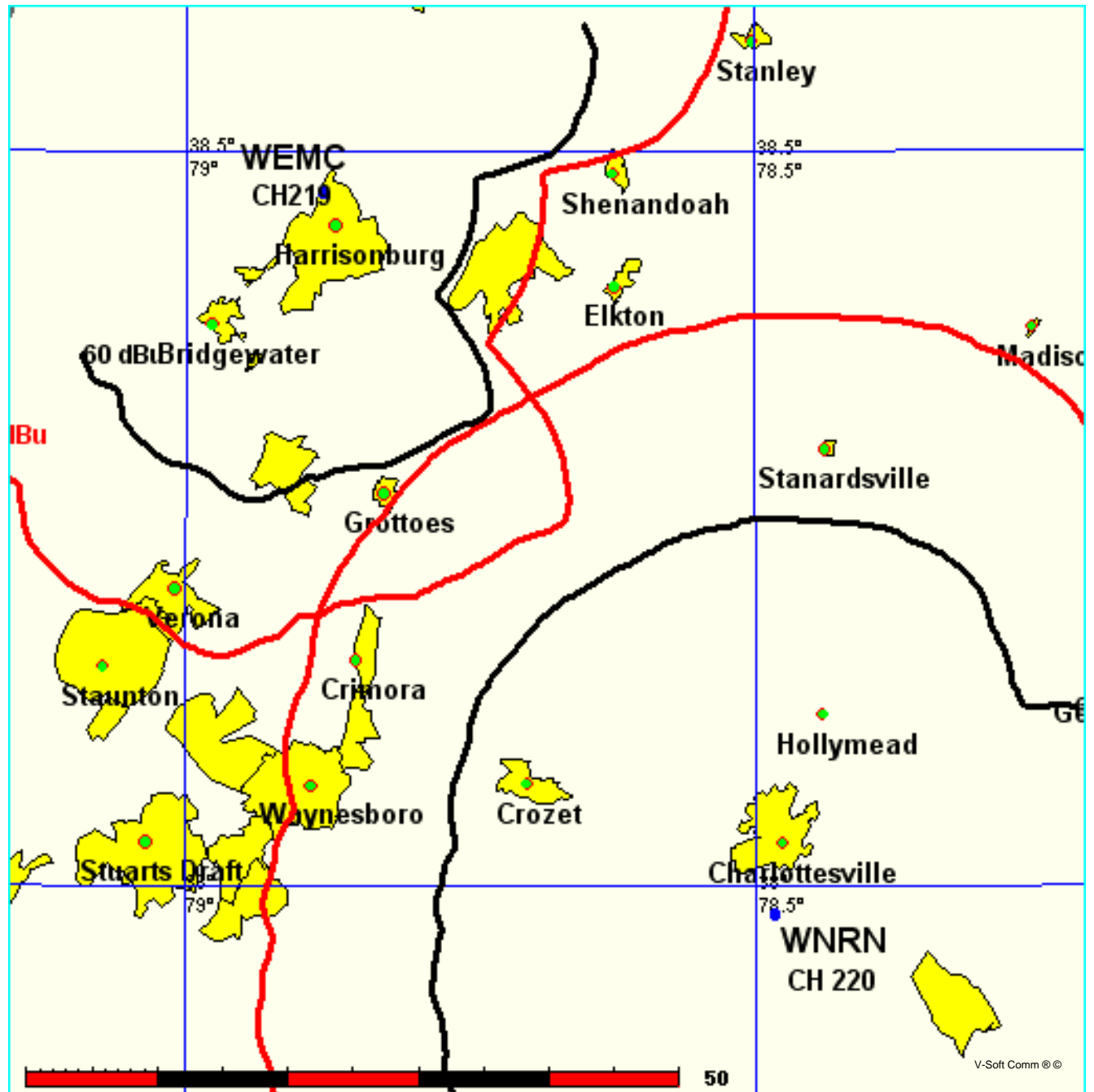
* According to the the Construction Permit (BPED-20070907AAU) this authorization expired at 3:00 AM on February 11, 2011.

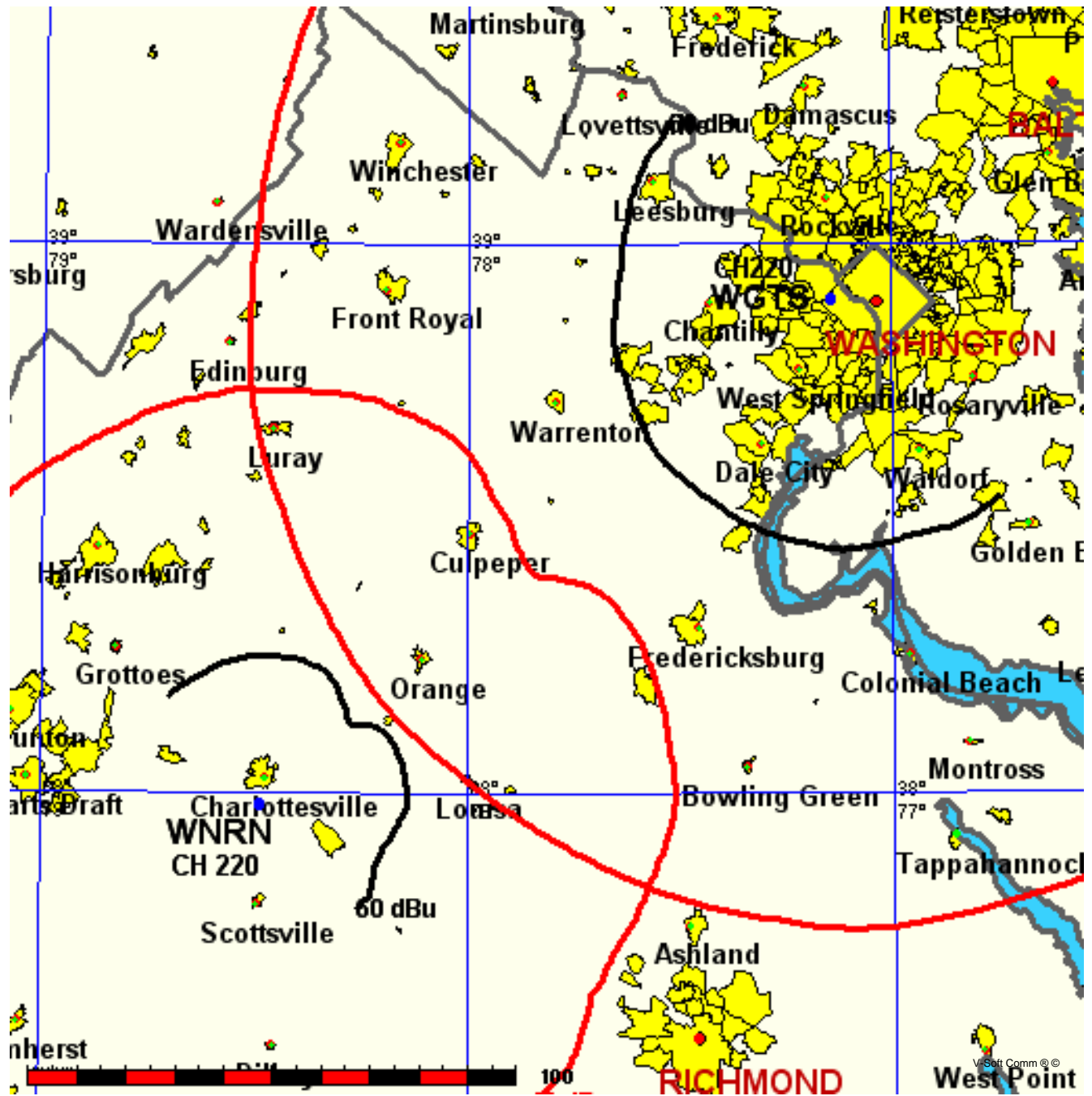
STU-COMM, INC., CHARLOTTESVILLE, VIRGINIA
WNRN vs WCDX



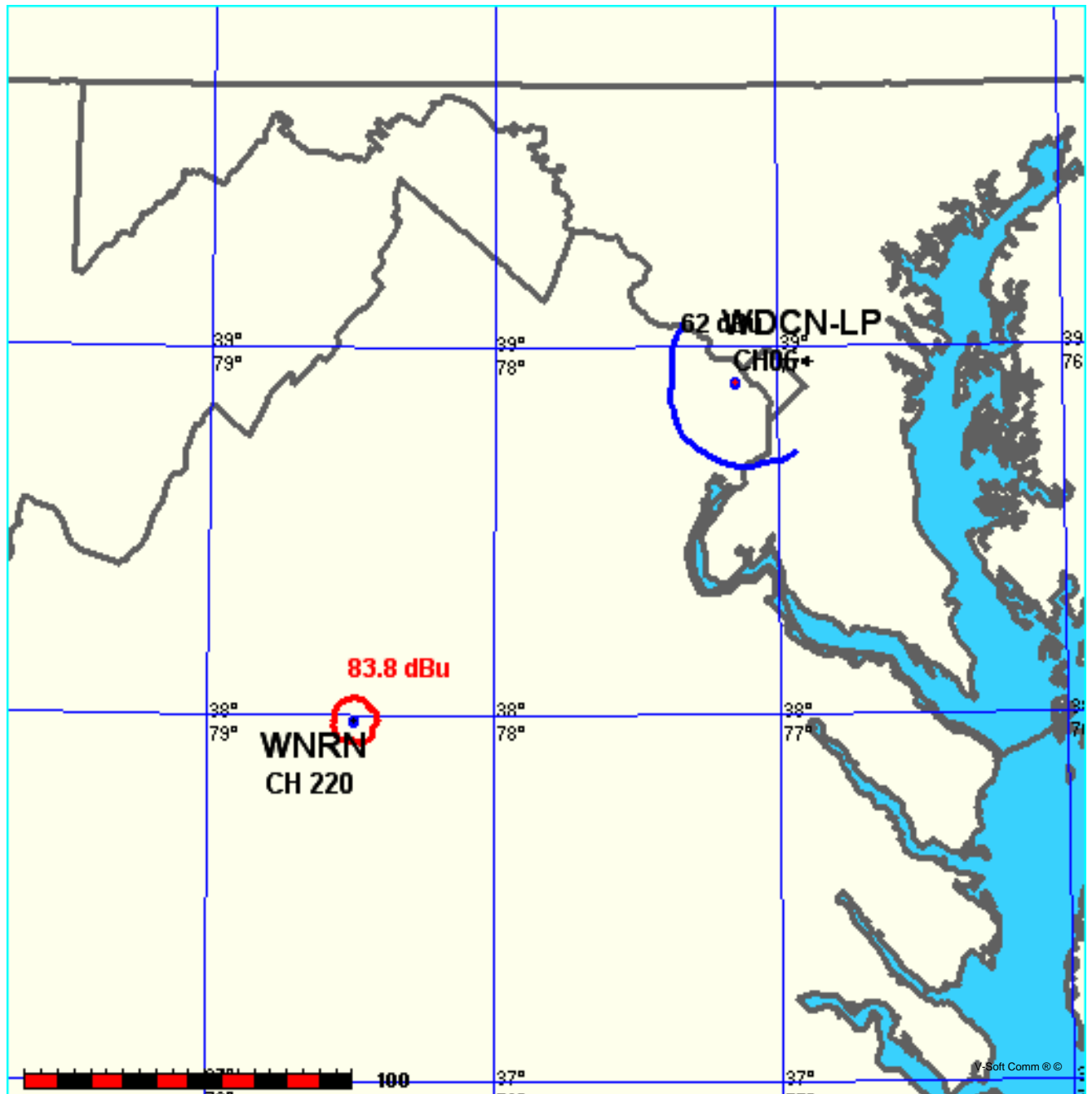
STU-COMM, INC., CHARLOTTESVILLE, VIRGINIA
WNRN vs WWEM (application)







STU-COMM, INC., WNRN, CHARLOTTESVILLE, VIRGINIA
WNRN vs WDCN-LP(tv) CP



STU-COMM, INC.

WNRN

CHARLOTTESVILLE, VIRGINIA

RFR FOR PROPOSED WNRN AND OTHER TOWER TENANTS

Referring to the attached antenna and tower sketch, the individual RFR contributions at two meters Above Ground Level are as follows:

CALL SIGN	HORIZ POWER (watts)	VERT POWER (watts)	AGL (meters)	ANTENNA bays & spacing	POWER 2m AGL $\mu\text{w}/\text{cm}^2$
WNRN	560	560	54	2/1.0	8.24
WTJU	600	600	49	2/1.0	2.84
WVTW	1000	1000	46	1/na	9.77
W209AA	250	250	38	1/na	<u>8.70</u>

Total Power Density 2 Meters AGL = 29.55

Calculations were made with FCC program FM Model.

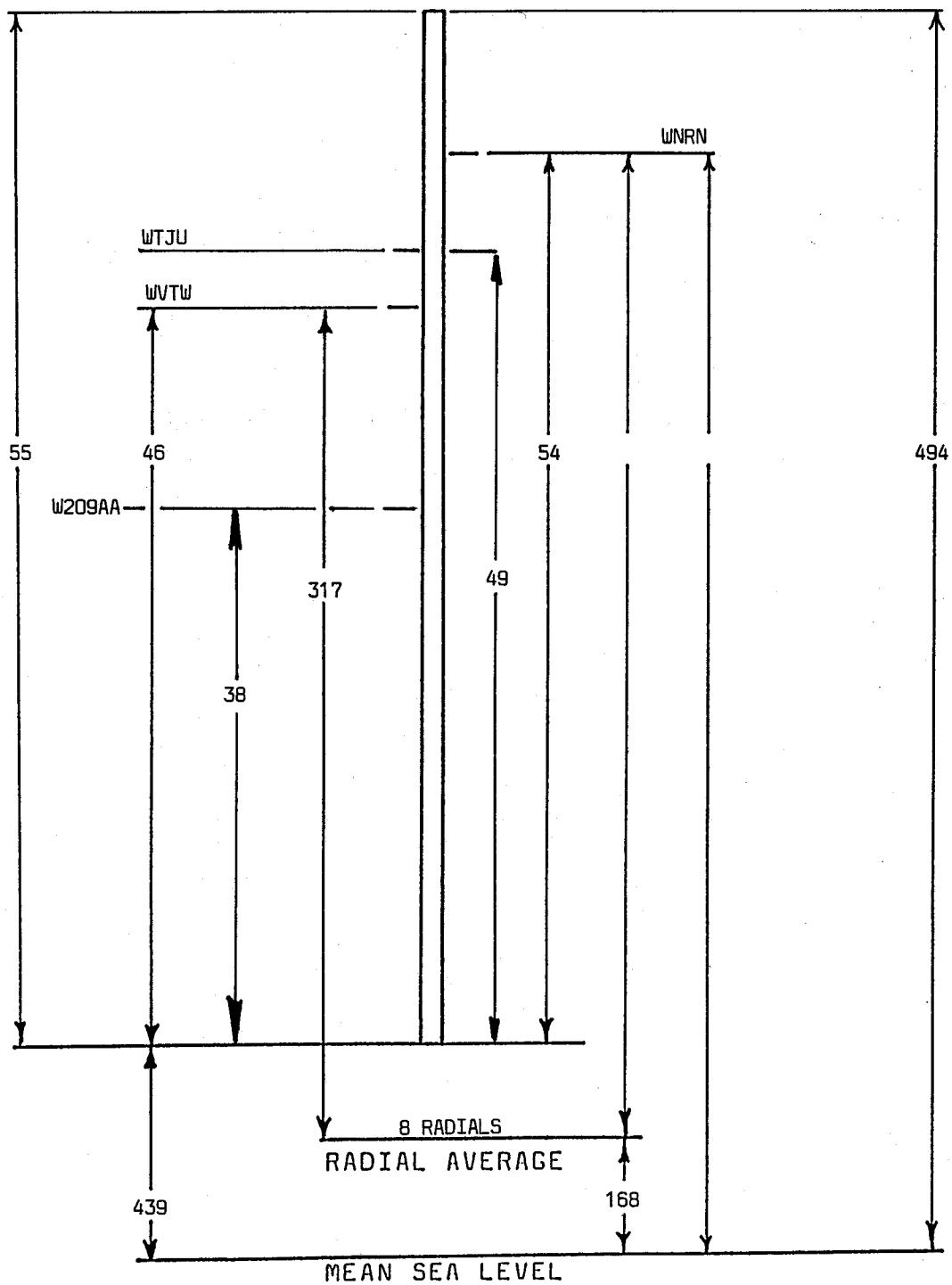
The WNRN calculation was made using a 2 bay Phelps-Dodge Ring Stub antenna.

WTJU has an ERI 2 bay Roto Tiller (model unknown). A Phelps-Dodge Ring Stub was used in FM Model.

WVTW proposes a Dielectric Communications DCRM as used in FM Model.

W209AA has an SWR single bay antenna. A Phelps-Dodge Ring Stub was used in FM Model.

Note: The Phelps-Dodge Ring Stub gives a "worst case" result.



Not to scale

Dimensions are in meters.

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FIGURE 1
ANTENNA AND TOWER ELEVATIONS
 VIRGINIA TECH FOUNDATION, INC.
 CHARLOTTESVILLE, VIRGINIA