WKLX ONE STEP UPGRADE
BPH-20161115ACN
AMENDMENT

The application is amended to change the WUSY reference point and delete the WCKF reference point modification resulting in a total of three reference point modifications (WBDC + WUSY + WUBT) along with the WKLX class increase.

This technical report supports an application for a one-step upgrade for WKLX (#10515) from C3 to C2. The upgrade will produce a 60 dBu (50:50) population of 212,967 (2015 U.S. Census estimates) with an area of 5,738 square kilometers. This represents a gain of 23,122 in population and 811 sq km in area.

Allocation analysis:

The USGS 3 second terrain is used throughout. The following exhibits are provided:

E1	WKLX spacing study at application site
E1A-C	Interference analysis of 73.215 stations
E2	70 dBu service to Brownsville
E3	WKLX 264C2 fully spaced reference point channel study and 70 dBu
E4	Specified reference points channel studies and 70 dBu showings
E5	ASR and FMModel exhibits

Exhibits E1 and E1A-C demonstrate that the proposed facility meets Commission spacing and/or 73.215 contour overlap requirements. Exhibit E-2 demonstrates that the proposed facility will encompass Brownsville, KY with a 70 dBu contour. The 60 dBu for 11.5 kw and 184 meters HAAT is 43 km which is greater than the minimum and less than the maximum for a class C2.

N. Latitude = 37-09-19.0 W. Longitude. = 86-19-33.0
FCC - FM 2-10 Miles - 51 points method - USGS 3 SEC terrain

Azi.	AV EL	HAAT	ERP kW	60 dBu (50:50)
000	177.6	185.4	11.5000	43.08
030	190.0	173.0	11.5000	41.99
060	183.4	179.6	11.5000	42.60
090	189.5	173.5	11.5000	42.04
120	185.1	177.9	11.5000	42.45
150	189.4	173.6	11.5000	42.05
180	176.6	186.4	11.5000	43.16
210	184.9	178.1	11.5000	42.47
240	190.5	172.5	11.5000	41.93
270	158.3	204.7	11.5000	44.59
300	157.8	205.2	11.5000	44.63
330	165.9	197.1	11.5000	44.01

Ave El= 179.09 M HAAT= 183.91 M AMSL= 363 M

Reference points:

Channel 264C2 can be allotted to Brownsville, KY at a fully-spaced reference point (N 37-05-27 W 86-26-27) provided that allotment reference points changes are made to three other stations. These allotment reference point changes will not require physical changes to any of the station's facilities. In addition, these stations are not required to file applications in order to effectuate these reference point changes. The Media Bureau can recognize that the allotment of Channel 264C2 can be made consistent with the spacing requirements with the following reference points for these other stations.

(1) WBDC, Huntingburg, IN (38 14 16 and 86 53 54) see Figure E4A .

(2) WUBT, Russellville, KY (36 26 06 and 86 46 31) see Figure E4B.

(3) WUSY, Cleveland, TN (35 08 25 and 85 19 31) see Figure E4C.

Note that the WUSY reference point is amended as a result of the recent WLJA-FM construction and form 302 license to cover filed for its CP (BLH-20170330AAP). By changing this WUSY reference point, the WCKF reference point change is no longer needed and is deleted..

In the Report and Order, *Revision of Procedures Governing Amendments to FM Table of Allotments and Changes to Community of License in the Radio Broadcast Services*, 21 FCC Rcd 14212 (2006) at para. 9, the Commission stated, "we will not count required reference coordinate changes (which are not set out in the Table of Allotments) against the current limit of four contingent minor change applications that may be filed simultaneously." In that proceeding, the Commission eliminated the rule making process for these types of channel upgrades in class. In so doing the Commission permitted the previously required rule making changes (such as reference point changes) to be performed at the application stage.

The purpose of these reference points is to demonstrate that the allotment of Channel 264C2 can be made to Brownsville, KY as if there were a two-step procedure. Since there is no longer a two-step procedure, the reference points will not be needed once the WKLX permit is granted and each of these three stations will then be able to continue operating with their license facilities.

The locations for each of the three reference points are theoretically available for construction of a supporting tower and can provide 70 dBu coverage to their respective communities of license.

Antenna and RF calculation:

The WKLX facility will utilize an ERI LPX-4E full wavelength spaced, circularly polarized antenna mounted at 143 meters AGL. The RF contribution of the facility was calculated using the Commission's FMMODEL program to be 3.35 $\mu W/cm^2$ or 1.7% of the maximum permissible for general public exposure.

E1 WKLX CHANNEL STUDY

REFERENCE — DISPLAY DATES
37 09 19.0 N. — CLASS = C2 — DATA 04-03-17
86 19 33.0 W. — Current Spacings to 3rd Adj. — SEARCH 04-03-17
---------- Channel 264 - 100.7 MHz ----------

Call	Channel		Location		Azi	Dist	FCC	Margin	
WKLX	APP-N	264C2	Brownsville	KY	0.0	0.00	189.5	-189.5	
WKLX	RSV-A	264C2	Brownsville	KY	234.9	12.47	189.5	-177.0	
WKLX	LIC-N	264C3	Brownsville	KY	0.0	0.00	176.5	-176.5	
WBDC	LIC	265B1	Huntingburg	IN	336.8	127.40	133.5	-6.1	(1)
AL3902	RSV-A	265B1	Huntingburg	IN	337.5	130.32	133.5	-3.2	
WUSY	LIC	264C0	Cleveland	TN	156.4	235.52	238.5	-3.0	(2)
WUBT	LIC	266C1	Russellville	KY	204.8	76.84	78.5	-1.7	(3)
WLSK	LIC-N	265A	Lebanon	KY	55.7	107.44	105.5	1.9	
AL3898	RSV-A	264C0	Cleveland	TN	157.9	241.03	238.5	2.5	
WLGX	LIC	263C2	Louisville	KY	31.3	135.12	129.5	5.6	
WANY-FM	LIC-N	265A	Albany	KY	115.6	116.39	105.5	10.9	
AL3900	RSV-A	266C1	Russellville	KY	206.7	89.43	78.5	10.9	
WJCR-FM	LIC	211C1	Upton	KY	40.2	40.39	26.5	13.9	
WCYO	CP	264C3	Irvine	KY	73.1	200.61	176.5	24.1	
WCYO	LIC-N	264C3	Irvine	KY	73.0	200.77	176.5	24.3	

(1) 73.215 elected to WBDC.

(2) 73.215 elected to WUSY.

(3) 93.215 elected to WUBT.

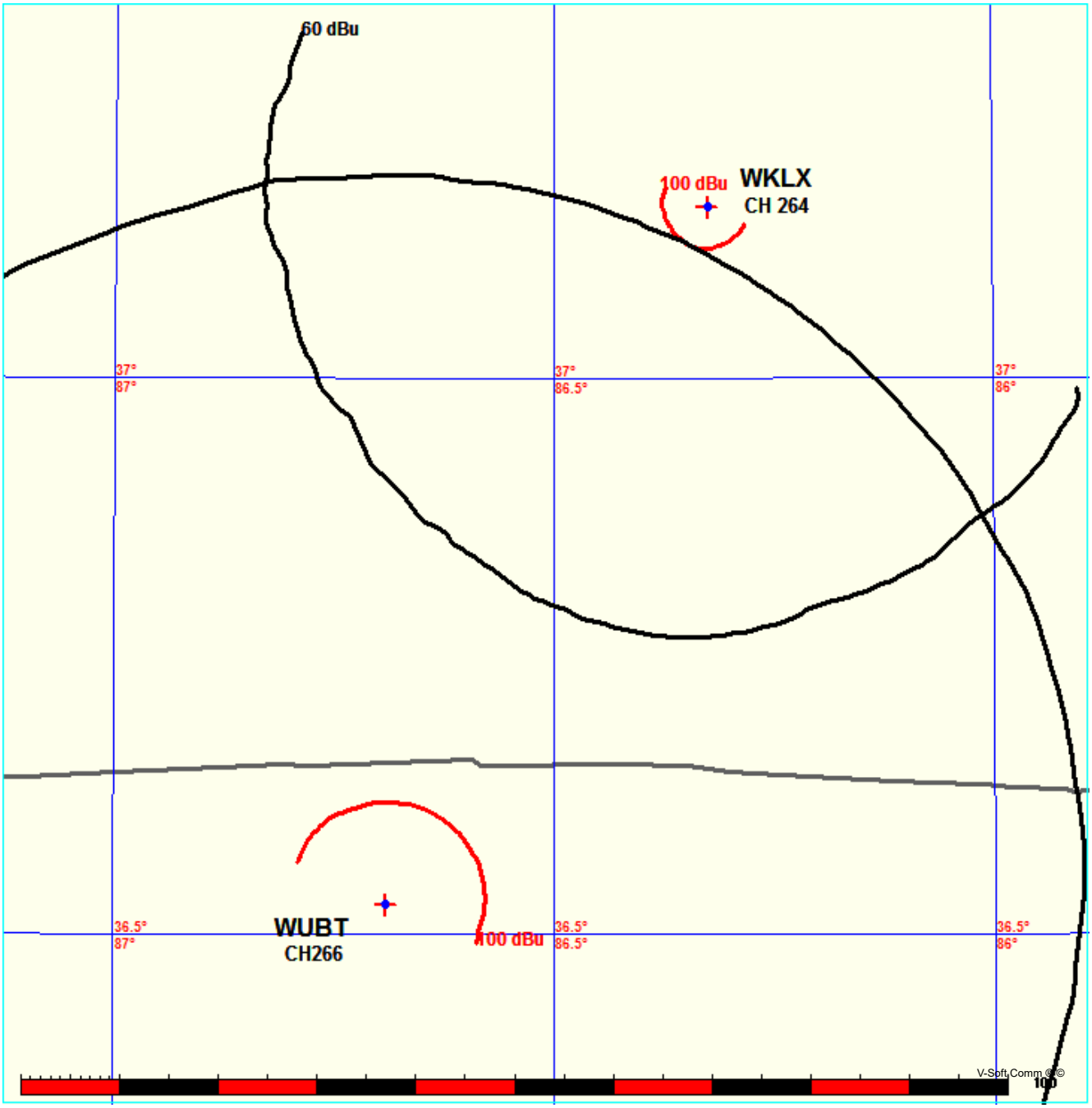
RSV-R = reserved - needs protection, RSV-A = allocation
All separation margins include rounding

E1A WUBT MAXIMUM CLASS (WORST CASE) INTERFERENCE PLOT

FMCommander Single Allocation Study - 11-12-2016 - USGS 03 SEC
WKLX's Overlaps (In= 23.84 km, Out= 0.03 km)

WKLX CH 264 C2 73.215 N
Lat= 37 09 19.0, Lng= 86 19 33.0
11.5 kW 178 m HAAT, 362 m COR
Prot.= 60 dBu, Intef.= 100 dBu

WUBT^ CH 266 C1 BLH19900328KC
Lat= 36 31 36.0, Lng= 86 41 14.0
Max Cls: 100.0 kW 299 m HAAT, 519 m COR
Prot.= 60 dBu, Intef.= 100 dBu



E1A1 WUBT FMOVER ANALYSIS - USGS 3 SECOND TERRAIN

WUBT BLH19900328KC
(^ Max Class Parameters)
Channel = 266C1
Max ERP = 100 kW
RCAMSL = 519 m
N. Lat. 36 31 36.0
W. Lng. 86 41 14.0
Protected

WKLX

Channel = 264C2
Max ERP = 11.5 kW
RCAMSL = 363 m
N. Lat. 37 09 19.0
W. Lng. 86 19 33.0
Interfering

60 dBu | **100 dBu**

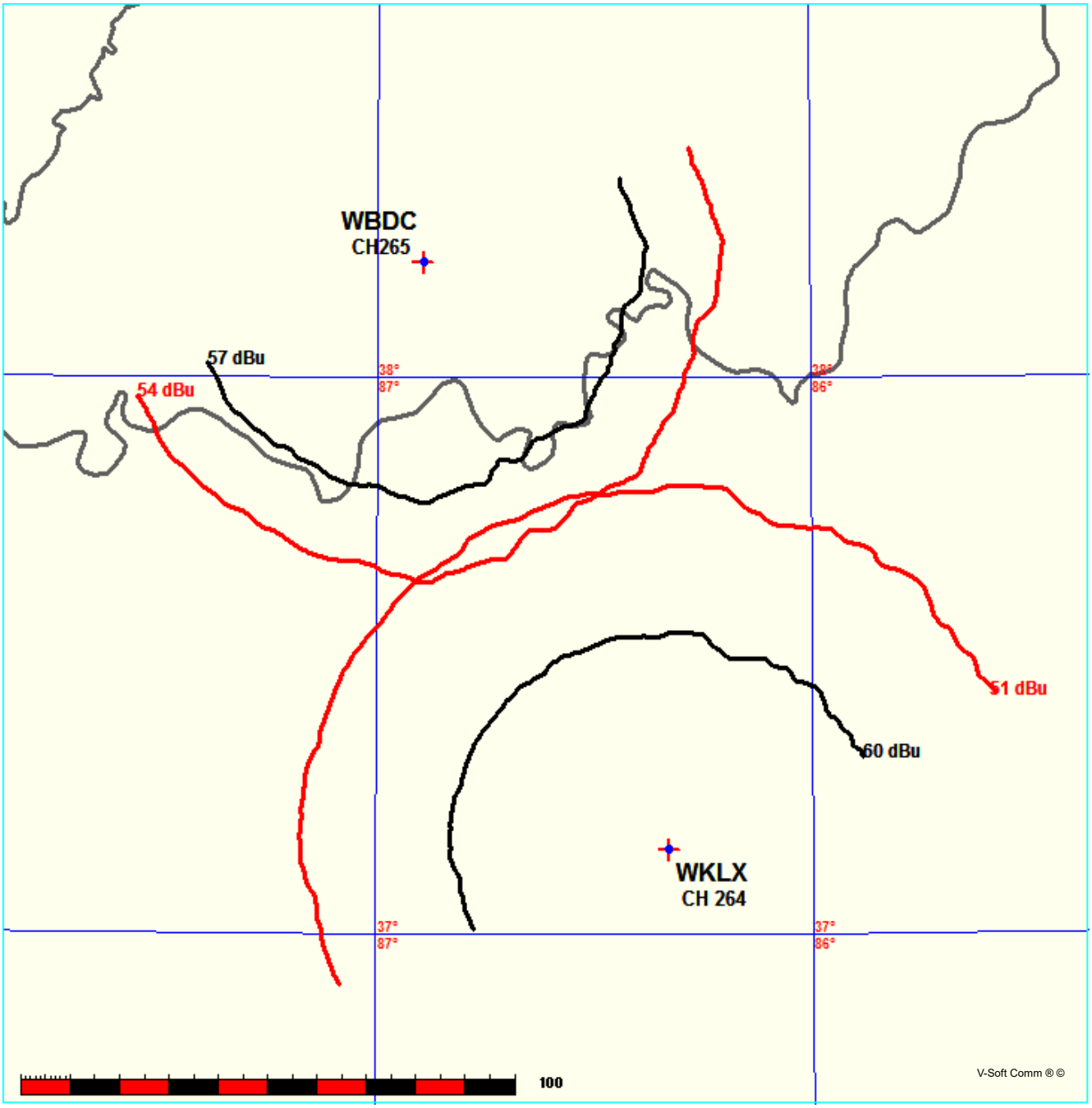
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
010.0	100.0000	0305.9	072.8	275.4	011.5000	0207.4	019.5	76.93	
011.0	100.0000	0305.9	072.8	275.1	011.5000	0206.8	018.2	77.93	
012.0	100.0000	0306.4	072.9	274.7	011.5000	0206.1	016.9	78.96	
013.0	100.0000	0306.8	072.9	274.2	011.5000	0206.1	015.7	80.02	
014.0	100.0000	0305.7	072.8	273.0	011.5000	0207.3	014.4	81.04	
015.0	100.0000	0305.5	072.8	271.8	011.5000	0207.1	013.2	82.63	
016.0	100.0000	0305.4	072.8	270.3	011.5000	0204.7	012.0	84.31	
017.0	100.0000	0305.1	072.8	268.3	011.5000	0206.2	010.8	86.31	
018.0	100.0000	0304.6	072.7	265.6	011.5000	0199.8	009.6	88.07	
019.0	100.0000	0304.2	072.7	262.0	011.5000	0186.2	008.4	89.58	
020.0	100.0000	0304.0	072.7	257.3	011.5000	0187.5	007.4	91.88	
021.0	100.0000	0303.7	072.7	250.8	011.5000	0187.5	006.3	94.32	
022.0	100.0000	0303.5	072.7	241.9	011.5000	0179.5	005.5	96.45	
023.0	100.0000	0303.3	072.6	229.9	011.5000	0176.5	004.8	98.36	
024.0	100.0000	0303.1	072.6	214.8	011.5000	0176.6	004.4	99.59	
025.0	100.0000	0302.7	072.6	198.1	011.5000	0185.3	004.4	99.90	
026.0	100.0000	0302.5	072.6	182.8	011.5000	0188.1	004.7	98.87	
027.0	100.0000	0301.9	072.5	170.6	011.5000	0178.7	005.4	96.60	
028.0	100.0000	0301.6	072.5	161.4	011.5000	0170.3	006.3	93.83	
029.0	100.0000	0300.9	072.5	155.0	011.5000	0172.3	007.3	91.38	
030.0	100.0000	0300.4	072.4	150.2	011.5000	0173.5	008.4	89.15	
031.0	100.0000	0299.8	072.4	146.7	011.5000	0174.1	009.5	87.03	
032.0	100.0000	0299.6	072.4	143.9	011.5000	0171.7	010.7	84.87	
033.0	100.0000	0299.3	072.3	141.8	011.5000	0169.6	011.9	82.84	
034.0	100.0000	0298.9	072.3	140.2	011.5000	0168.7	013.1	81.04	
035.0	100.0000	0298.4	072.3	139.0	011.5000	0169.3	014.3	79.50	
036.0	100.0000	0298.4	072.3	137.9	011.5000	0170.4	015.5	78.45	
037.0	100.0000	0297.9	072.2	137.2	011.5000	0171.3	016.8	77.46	
038.0	100.0000	0297.3	072.2	136.7	011.5000	0171.9	018.0	76.45	
039.0	100.0000	0297.0	072.1	136.3	011.5000	0172.5	019.3	75.47	
040.0	100.0000	0297.3	072.2	135.8	011.5000	0173.2	020.5	74.52	
041.0	100.0000	0297.1	072.2	135.5	011.5000	0173.5	021.8	73.56	
042.0	100.0000	0296.6	072.1	135.4	011.5000	0173.7	023.0	72.61	
043.0	100.0000	0296.4	072.1	135.3	011.5000	0173.8	024.3	71.69	
044.0	100.0000	0295.8	072.1	135.4	011.5000	0173.8	025.6	70.79	
045.0	100.0000	0295.4	072.0	135.4	011.5000	0173.8	026.8	69.93	

E1B WBDC MAXIMUM CLASS INTERFERENCE PLOT

FMCommander Single Allocation Study - 11-12-2016 - USGS 03 SEC
WKLX's Overlaps (In= 24.07 km, Out= 8.73 km)

WKLX CH 264 C2 73.215 N
Lat= 37 09 19.0, Lng= 86 19 33.0
11.5 kW 186.5 m HAAT, 363 m COR
Prot.= 60 dBu, Intef.= 51 dBu

WBDC^ CH 265 B1 BLH19940824KP
Lat= 38 12 31.0, Lng= 86 54 00.0
Max Cls: 25.0 kW 100 m HAAT, 255 m COR
Prot.= 57 dBu, Intef.= 54 dBu

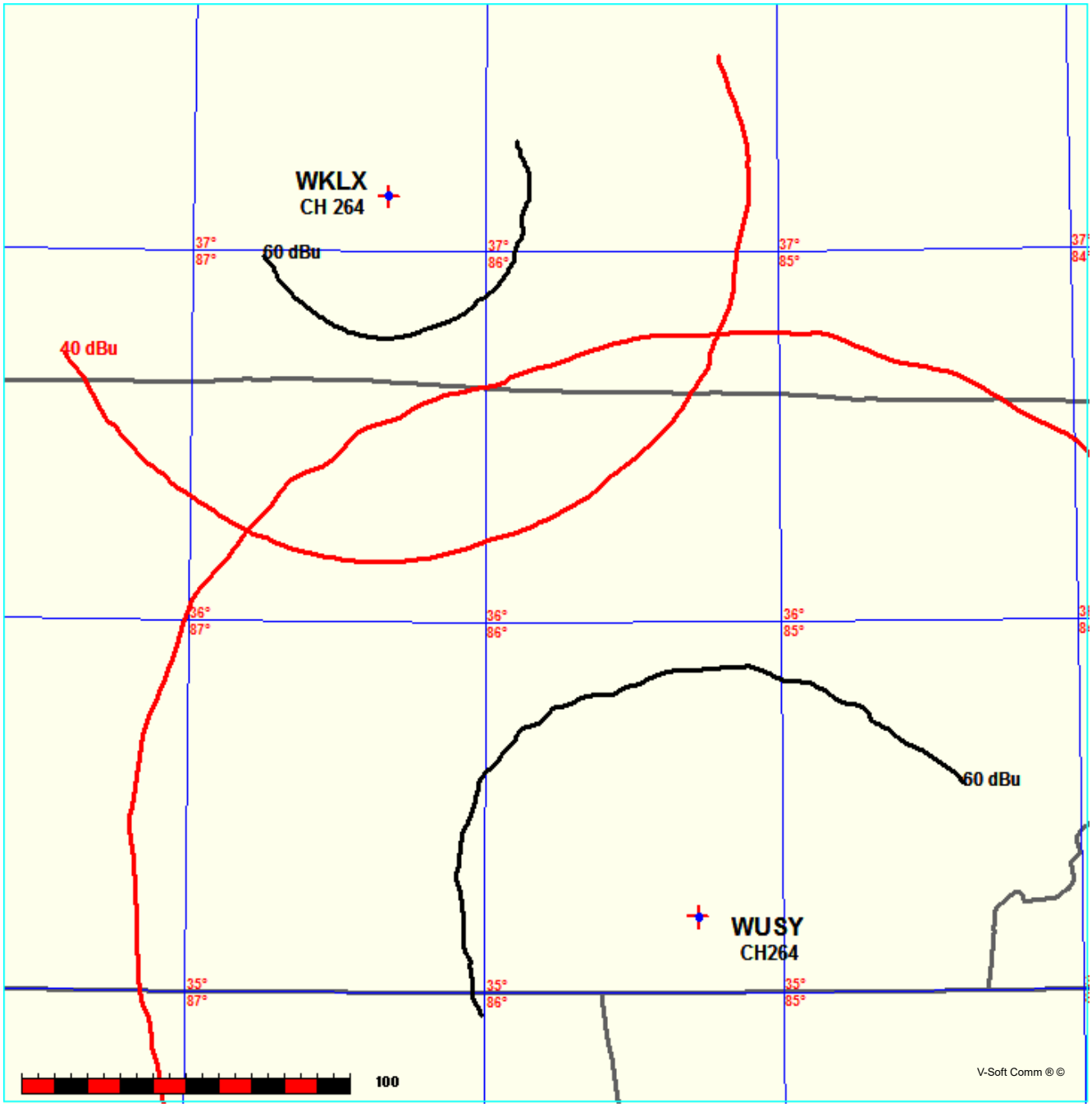


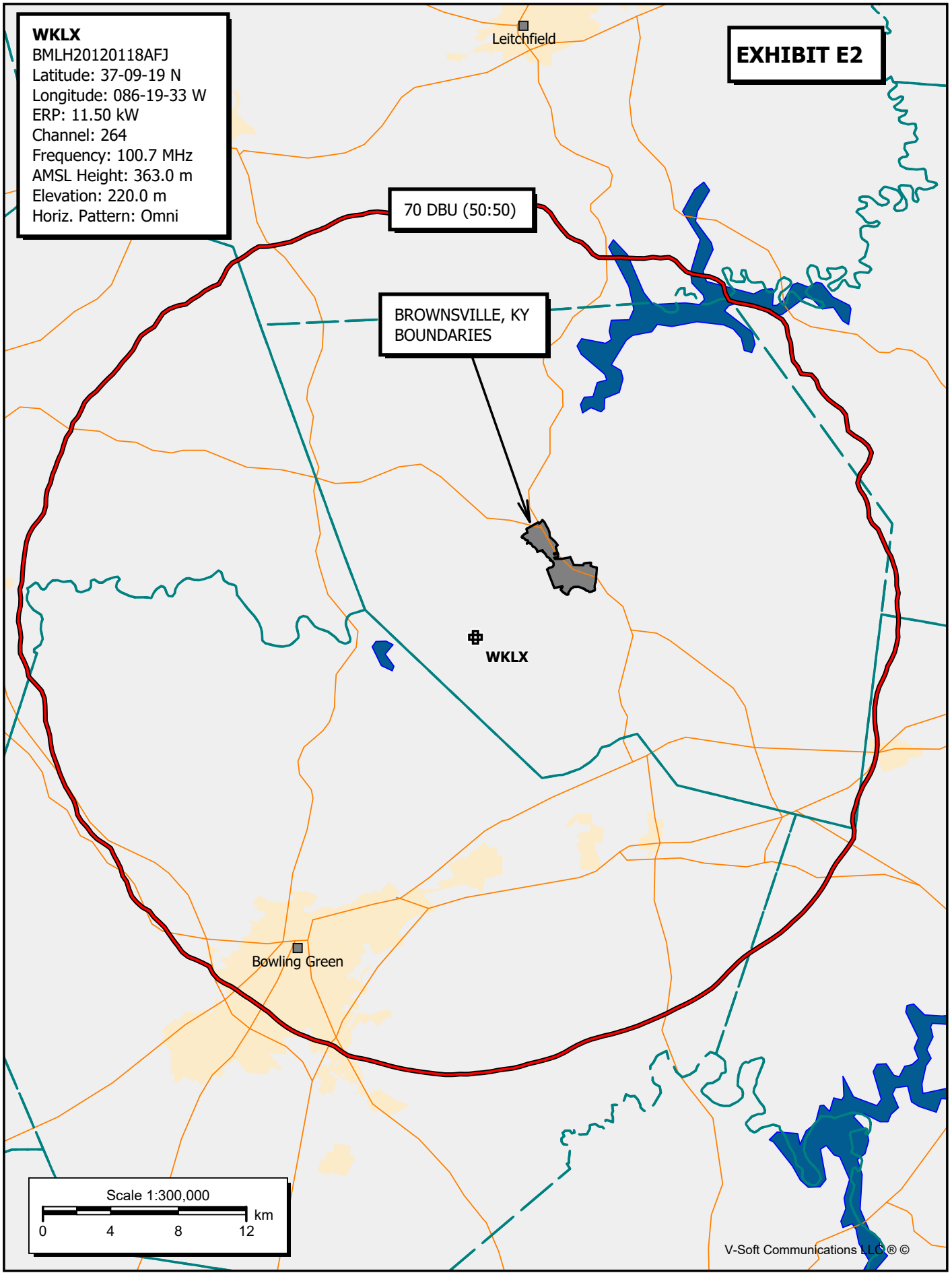
E1C WUSY MAXIMUM CLASS INTERFERENCE PLOT

FMCommander Single Allocation Study - 11-12-2016 - USGS 03 SEC
WKLX's Overlaps (In= 20.7 km, Out= 53.6 km)

WKLX CH 264 C2 73.215 N
Lat= 37 09 19.0, Lng= 86 19 33.0
11.5 kW 186.5 m HAAT, 363 m COR
Prot.= 60 dBu, Intef.= 40 dBu

WUSY^ CH 264 C0 BLH19890711KC
Lat= 35 12 26.0, Lng= 85 17 10.0
Max Cls: 100.0 kW 450 m HAAT, 851 m COR
Prot.= 60 dBu, Intef.= 40 dBu




WKLX
BMLH20120118AFJ
Latitude: 37-09-19 N
Longitude: 086-19-33 W
ERP: 11.50 kW
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 363.0 m
Elevation: 220.0 m
Horiz. Pattern: Omni
EXHIBIT E2
Leitchfield
70 DBU (50:50)
BROWNSVILLE, KY
BOUNDARIES
WKLX
Bowling Green
Scale 1:300,000
0
4
8
12
km
V-Soft Communications LLC ® ©

E3 WKLX FULLY SPACED REFERENCE POINT
CHANNEL STUDY

REFERENCE
37 05 27.0 N.
86 26 27.0 W.

CLASS = C2
Current Spacings to 3rd Adj.

DISPLAY DATES
DATA 04-03-17
SEARCH 04-03-17

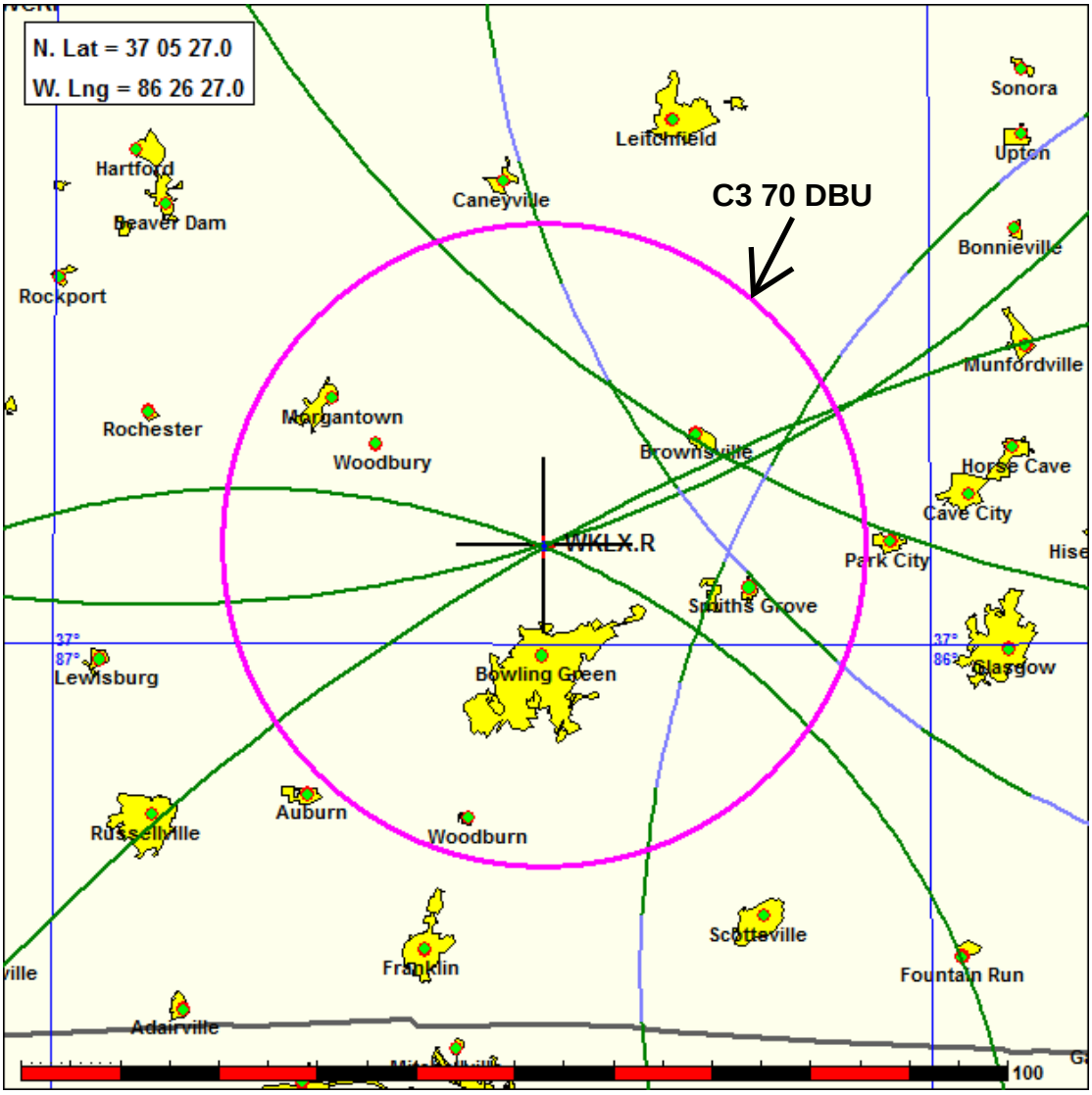
---------- Channel 264 - 100.7 MHz ----------

Call	Channel	Location		Azi	Dist	FCC	Margin	
WKLX	RSV-A 264C2	Brownsville	KY	0.0	0.00	189.5	-189.5	
WKLX	APP-N 264C2	Brownsville	KY	54.9	12.47	189.5	-177.0	
WKLX	LIC-N 264C3	Brownsville	KY	54.9	12.47	176.5	-164.0	
WUBT_%	LIC 266C1	Russellville	KY	199.3	66.35	78.5	-12.2	(1)
WUSY	LIC 264C0	Cleveland	TN	153.3	233.41	238.5	-5.1	
WBDC	LIC 265B1	Huntingburg	IN	342.1	130.50	133.5	-3.0	
AL3902	RSV-A 265B1	Huntingburg	IN	342.6	133.54	133.5	0.04	
AL3900	RSV-A 266C1	Russellville	KY	202.3	78.66	78.5	0.16	
AL3898	RSV-A 264C0	Cleveland	TN	150.6	238.67	238.5	0.17	
WLSK	LIC-N 265A	Lebanon	KY	55.5	119.91	105.5	14.4	
WLGX	LIC 263C2	Louisville	KY	33.2	146.63	129.5	17.1	
WANY-FM	LIC-N 265A	Albany	KY	110.4	123.02	105.5	17.5	
WVVR	LIC 262C0	Hopkinsville	KY	262.2	110.65	88.5	22.2	

(1) See WUBT, WUSY and WBDC modified, fully-spaced reference points below.

RSV-R = reserved - needs protection, RSV-A = allocation
% = Station Fails minimum 73.215 spacings
All separation margins include rounding

E3 WKLX FULLY SPACED REFERENCE POINT
70 DBU COVERAGE OF BROWNSVILLE, KY

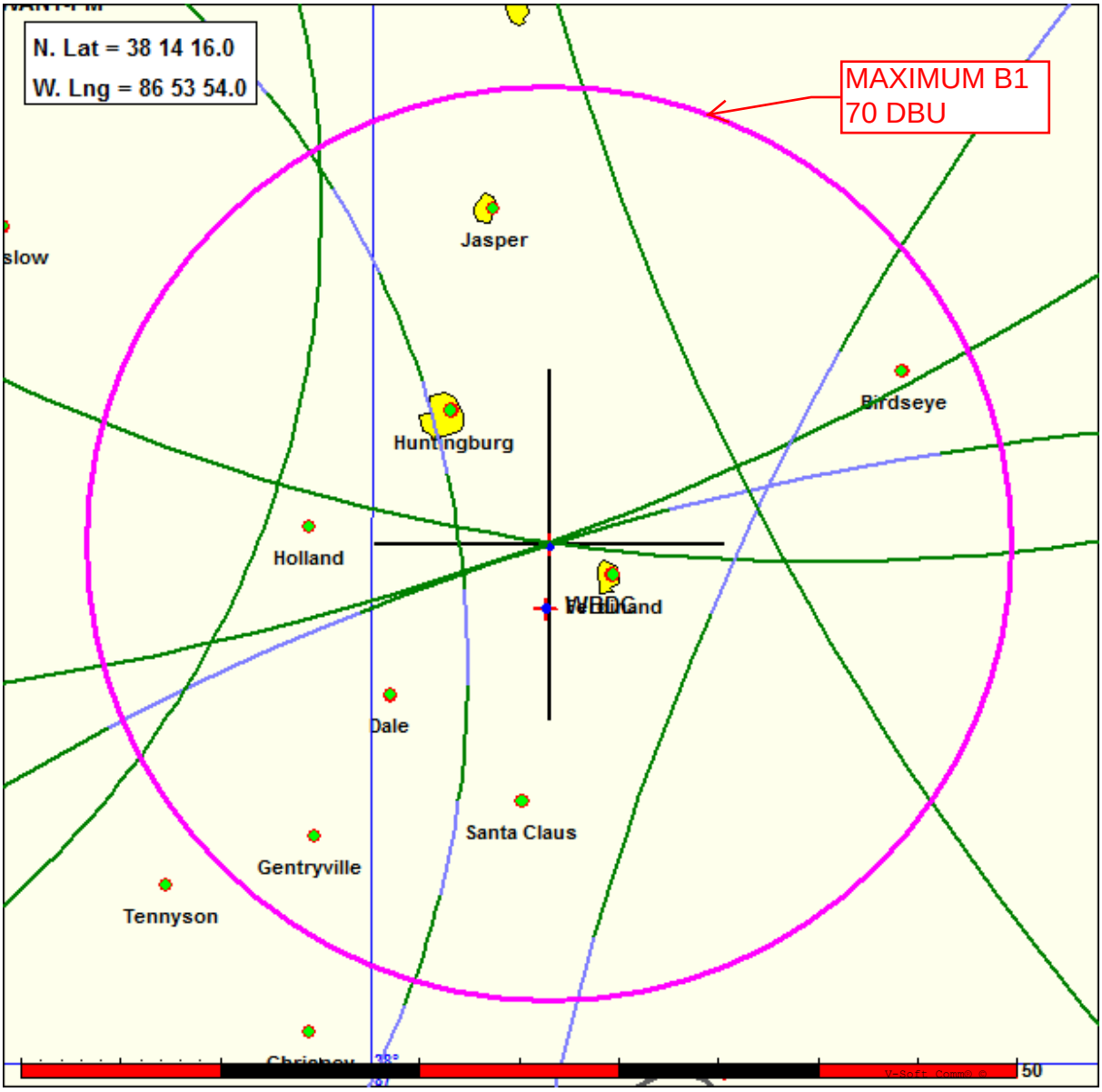


E4A

CH 265 B1 100.9 MHz

Current Spacings to 3rd Adj.

WBDC REFERENCE POINT



Data Date:11-12-16 Job Date:11-12-16

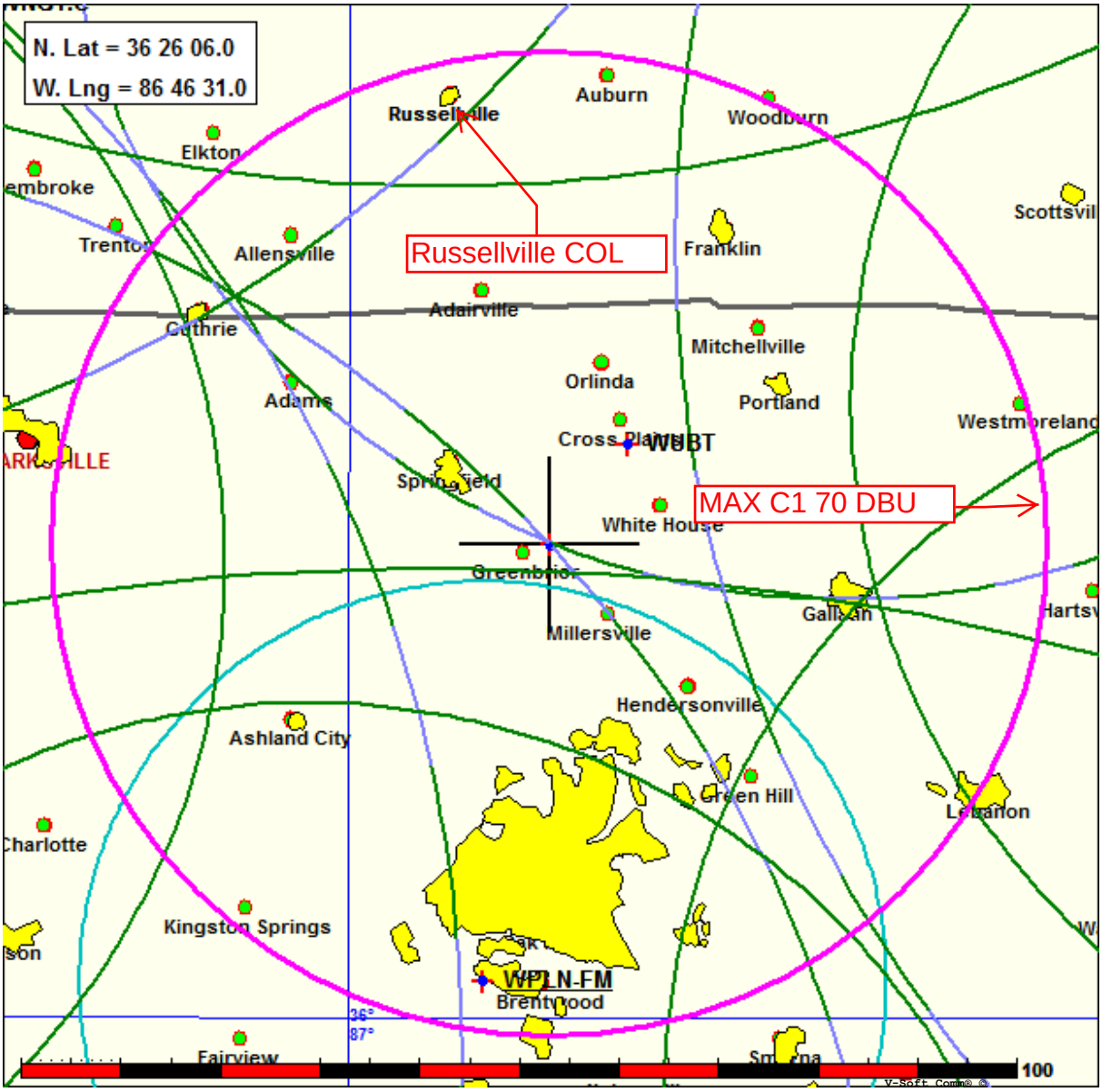
Call	CH#	Type	Location		Azi	D-KM	FCC	Margin
	Lat.		Lng.	Ant	Power		HAAT	
WBDC	265B1	LIC	Huntingburg		IN	182.6	3.24	174.5	-171.3
38 12 31.0			86 54 00.0	CN	11.000 kW		150 M		
WKLX	264C2	LIC-N	Brownsville		KY	162.3	133.54	133.5	0.04
37 05 27.0			86 26 27.0	(fully spaced reference point)					
WMGI	264B	LIC	Terre Haute		IN	339.8	144.55	144.5	0.05
39 27 28.0			87 28 50.0	CX	50.000 kW		149 M		
WMYJ-FM	266A	LIC	Bloomfield		IN	8.2	95.56	95.5	0.06
39 05 23.0			86 44 25.0	CX	3.800 kW		128 M		
WBGW-FM	268A	LIC-N	Fort Branch		IN	263.0	51.96	47.5	4.5
38 10 45.0			87 29 13.0	NC	2.100 kW		171 M		
WLSK	265A	LIC-N	Lebanon		KY	113.0	151.33	142.5	8.8
37 41 43.0			85 19 06.0	NCX	3.900 kW		126 M		

CH 266 C1 101.1 MHz

E4B

Current Spacings to 3rd Adj.

WUBT REFERENCE POINT



Data Date:11-12-16 Job Date:11-12-16

Call	CH#	Type	Location		Azi	D-KM	FCC	Margin
	Lat.		Lng.	Ant	Power		HAAT	
WUBT	266C1	LIC	Russellville	KY	37.7	12.87	244.5	-231.6
36 31 36.0			86 41 14.0	CN	47.000 kW		393 M	
WOPC	267A	LIC-N	Linden	TN	227.6	132.53	132.5	0.03
35 37 36.4			87 51 28.9	NC	2.350 kW		105 M	
WKLX	264C2	LIC-N	Brownsville	KY	22.1	78.66	78.5	0.16
37 05 27.0			86 26 27.0	NC	(fully spaced reference point)			
WYDE-FM	266C0	LIC	Cullman	AL	182.6	261.28	258.5	2.8
34 04 56.0			86 54 15.0	CX	100.000 kW		410 M	
WPLN-FM	212C	LIC	Nashville	TN	188.5	44.81	40.5	4.3
36 02 08.0			86 50 56.0	CN	80.000 kW		345 M	
WANY-FM	265A	LIC-N	Albany	KY	78.1	148.39	132.5	15.9
36 41 54.0			85 09 00.0	NCX	6.000 kW		56 M	

E4C WUSY FULLY SPACED REFERENCE POINT CHANNEL STUDY

REFERENCE
35 12 43.0 N.
85 08 59.0 W.

CLASS = C0
Current Spacings to 3rd Adj.

DISPLAY DATES
DATA 04-03-17
SEARCH 04-03-17

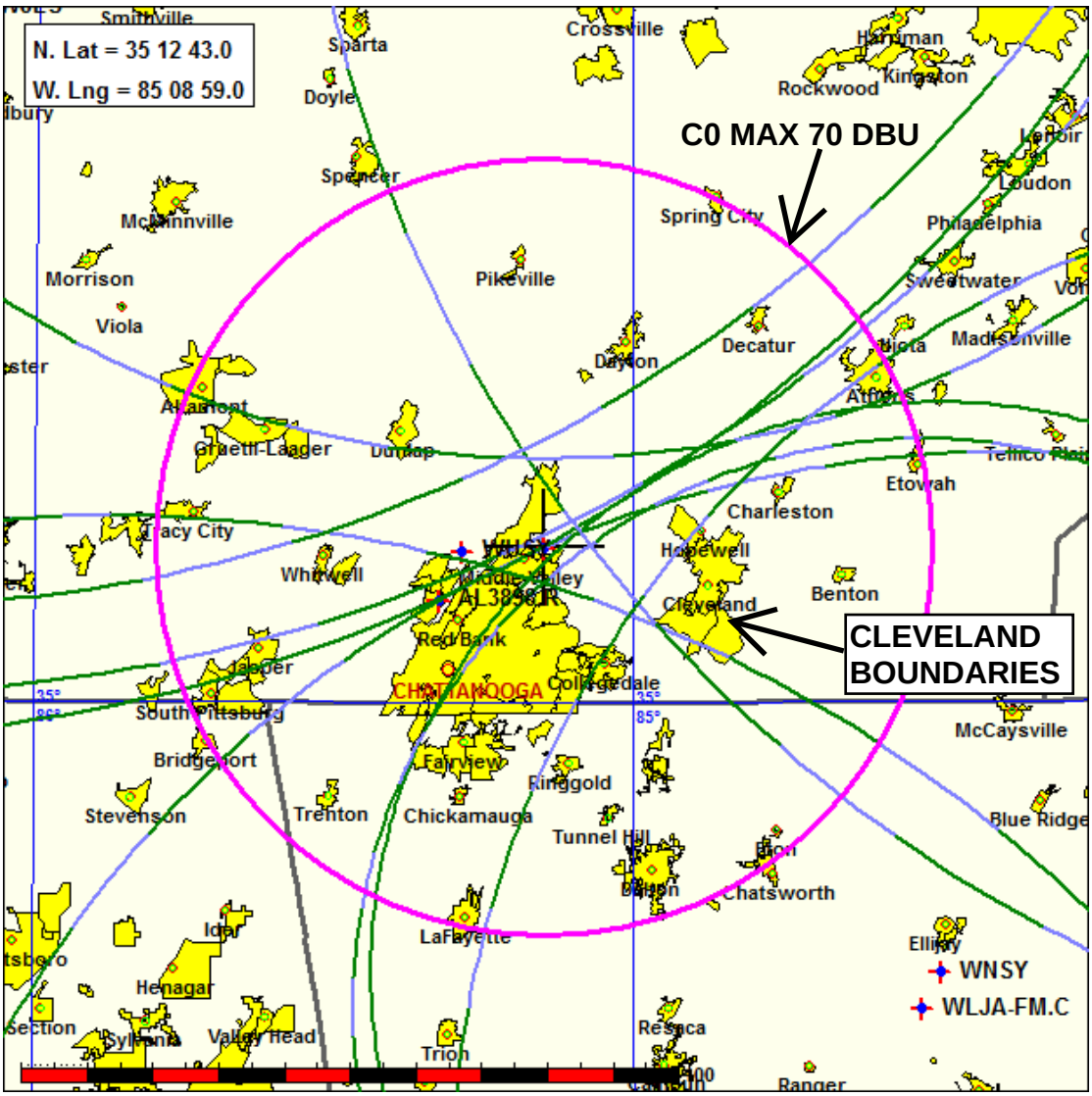
---------- Channel 264 - 100.7 MHz ----------

Call	Channel	Location		Azi	Dist	FCC	Margin
WUSY	LIC 264C0	Cleveland	TN	267.6	12.43	269.5	-257.1
AL3898_%	RSV-A 264C0	Cleveland	TN	243.5	17.85	269.5	-251.7
WLJA-FM_%	LIC-N 266C3	Ellijay	GA	133.4	79.96	86.5	-6.5
WNNX	LIC-Z 263C2	College Park	GA	156.4	175.63	175.5	0.13
WKLX	RSV-A 264C2	Brownsville	KY	331.4	238.67	238.5	0.17
WKLX	APP-N 264C2	Brownsville	KY	334.3	240.18	238.5	1.7
WNSY	LIC 261C3	Talking Rock	GA	136.9	88.19	86.5	1.7
WLJA-FM	CP -N 266C3	Ellijay	GA	140.6	90.53	86.5	4.0
WCKF	LIC-N 264A	Ashland	AL	197.5	219.78	214.5	5.3
WBGQ	LIC-N 264A	Bulls Gap	TN	53.3	220.24	214.5	5.7
WANY-FM	LIC-N 265A	Albany	KY	360.0	164.92	151.5	13.4
WKLX	LIC-N 264C3	Brownsville	KY	334.3	240.18	225.5	14.7
WJES	LIC-Z 265A	Maysville	GA	125.0	168.07	151.5	16.6
AL3894	RSV-A 264A	Ashland	AL	195.7	232.45	214.5	18.0
WWON-FM	LIC 264A	Waynesboro	TN	273.4	236.41	214.5	21.9

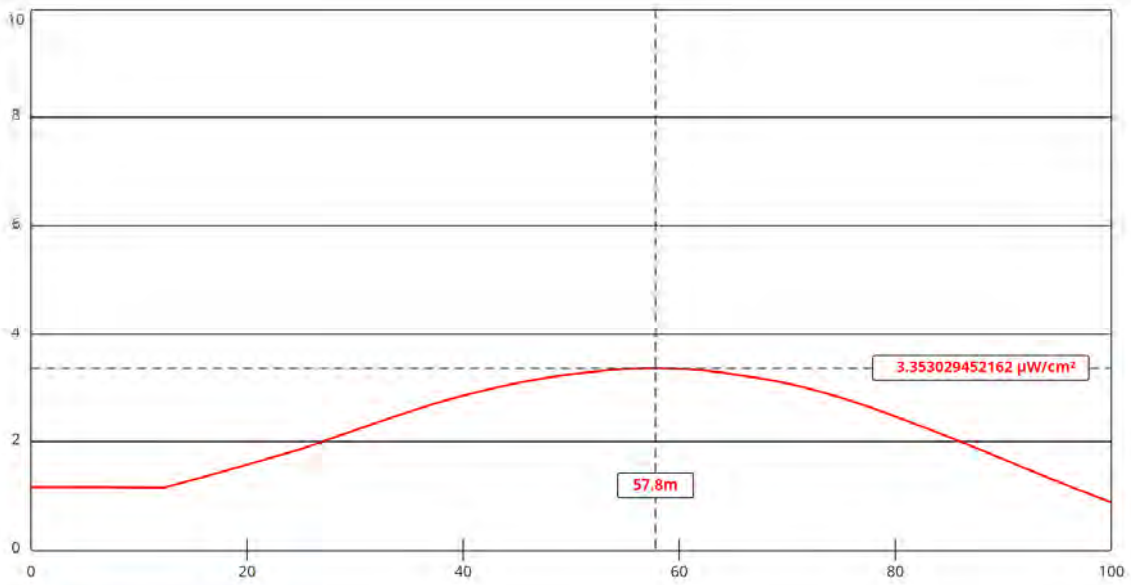
This WLJA-FM facility may be ignored. WLJA-FM has filed a form 302 license to cover (BLH-20170330AAP) for its construction permit (see below).

RSV-R = reserved - needs protection, RSV-A = allocation
% = Station Fails minimum 73.215 spacings
All separation margins include rounding

E4C WUSY FULLY SPACED REFERENCE POINT 70 DBU



E5 FMMODEL



View Tabular Results +

Channel Selection	Channel 264 (100.7 MHz)		
Antenna Type +	EPA Type 3: Opposed U Dipole		
Height (m)	143	Distance (m)	100
ERP-H (W)	11500	ERP-V (W)	11500
Num of Elements	4	Element Spacing (λ)	1
Num of Points	500	Apply	

ASR Registration Search

Registration 1060660

E5 ASR

Map Registration

Registration Detail

Reg Number	1060660	Status	Constructed
File Number	A0747890	Constructed	01/16/2012
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	37-09-18.7 N 086-19-33.2 W	Address	.75 MILES NORTH OF WINGFIELD CHURCH ON HIGHWAY 1749
City, State	WINGFIELD , KY		
Zip	42101	County	EDMONSON
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
219.5	152.4
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
371.9	151.8

Painting and Lighting Specifications

FAA Chapters 4, 8, 13
Paint and Light in Accordance with FAA Circular Number 70/7460-1J

FAA Notification

FAA Study	2011-ASO-7240-OE	FAA Issue Date	11/25/2011

Owner & Contact Information

FRN 0002655496 Owner Entity Type

Owner

ANDERSON COMMUNICATIONS, LLC
Attention To: CHARLES M. ANDERSON
1519 EUCLID AVENUE
BOWLING GREEN , KY 42103

P: (270)782-0246
F:
E: cmanderson43@yahoo.com

Contact

Anderson , Charles M
1519 Euclid Avenue
Bowling Green , KY 42103

P: (270)782-0246
F:
E: cmanderson43@yahoo.com

Last Action Status

Status	Constructed	Received	01/16/2012
Purpose	Notification	Entered	01/16/2012
Mode	Interactive		