

**Exhibit 11
To FCC 349**

**Barry L. Hardin
2688 Majestic Oaks Court
Beavercreek, OH 45431**

**W268AX
Facility ID Number 147951
31 July 2006**

Interference Contour Calculations

Take W268AX's ERP at a given HAAT on 101.5 MHz to ensure that the translator's interference contour will not overlap the protected contour of other stations. If the distance of the protected contour plus the distance of the worst-case interference contour is less than the distance between stations, there is no possible overlap as determined by Rule 74.1204.

Station and Call Sign	Facility ID #	Station		Azimuth Deg.	Dist. km	Prot. Contr.		W268AX Interf. Contour				Clearance km
		Class	Freq.			dBu	km	W	m	dBu	km	
WIZF, Erlanger, KY (LIC)	5893	A	100.9	205.2	88.9	60	28.3	79	44	100	0.6	60.0
WIZF, Erlanger, KY (CP & Tests)	5893	A	101.1	205.2	88.9	60	28.3	79	44	100	0.6	60.0
WWCD, Grove City, OH (LIC)	28644	A	101.1	90.8	90.9	60	28.3	158	29	100	0.9	61.6
WWCD, Grove City, OH (USED)	28644	A	101.1	89.8	89.5	60	28.3	158	28	100	0.9	60.6
New, Hillsboro, OH (APP)	139539	FX	101.1	148.0	82.1	60	5.6	113	22	100	0.7	75.8
New, Hillsboro, OH (APP)	140101	FX	101.1	148.2	80.2	60	<3.0	113	22	100	0.7	>76.5
WFMG Richmond, IN (LIC)	41845	B1	101.3	278.1	73.0	57	52.1	101	39	51	10.9	10.0
WFMG Richmond, IN (USED)	41845	B1	101.3	270.1	69.8	57	52.1	95	39	51	10.7	7.0
WCWT, Centerville, OH	9780	D	101.5	186.8	22.6	60	4.4	83	27	40	17.6	0.6
W268AR, Wilmington, OH	138927	FX	101.5	147.1	43.4	60	6.5	114	23	40	19.3	17.6
W269BP, Richmond, IN	148424	FX	101.7	271.0	64.8	60	4.1	96	39	54	9.0	51.7
WKSW, Urbana, OH (LIC)	10113	A	101.7	50.5	38.5	60	28.3	155	31	54	9.1	1.1
WKSW, Urbana, OH (USED)	10113	A	101.7	48.3	45.9	60	28.3	155	29	54	9.0	11.0
WKRQ, Cincinnati, OH	11276	B	101.9	202.7	85.8	54	65.1	79	37	94	1.3	19.4
W270AT, Dayton, OH (CP)	157110	FX	101.9	103.9	8.2	60	2.9	159	29	100	0.9	4.4
WIMT, Lima, OH (LIC & USED)	37497	B	102.1	355.1	89.7	54	65.1	157	8	94	1.5	23.1
WIMT, Lima, OH (CP)	37497	B	102.1	1.7	92.7	54	65.1	156	7	94	1.5	26.1

Notes:

Translator, Facility ID # 139539 has applied to run 55W ERP at 40m HAAT. Therefore their 60dBu protected contour is 5.6 km.

Translator, Facility ID # 140101 has applied to run less than 1W ERP at 88m HAAT in the direction of W268AX (328.2 degrees) through a directional antenna. Therefore their 60dBu protected contour in this azimuth is less than 3.0 km.

W268AR, Facility ID # 138927, has a CP to run 13W ERP at 108m HAAT. Therefore their 60dBu protected contour is 6.5 km.

W269BP, Facility ID # 148424, has a CP to run 27W ERP at 31m HAAT. Therefore their 60dBu protected contour is 4.1 km.

W270AT, Facility ID # 157110, has a CP to run 7W ERP at 12m HAAT. Therefore their 60dBu protected contour is 2.9 km.

FM Query Results -- Audio Division (FCC) USA



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Audio Division FM Query & FM List Results

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FM Query and FM List results are derived from the public files at <http://www.fcc.gov/mb/databases/cdbs>. Requests to correct data should be referred to [Dale Bickel, dale.bickel@fcc.gov](mailto:dale.bickel@fcc.gov). Comments on the FM Query may be referred to [Dale Bickel, dale.bickel@fcc.gov](mailto:dale.bickel@fcc.gov).

Mon Jun 26 08:29:14 2006 Eastern time

Search Parameters

Facility ID No.: 5893
Lower Channel 200
Upper Channel 300

WIZF KY ERLANGER USA

Licensee: BLUE CHIP BROADCASTING LICENSES, LTD.
Service Designation: **FM** 'Full Service' FM station or application

Channel/Class: 265A Frequency: 100.9 MHz **Licensed**
File No.: BLH-19890207KF Facility ID number: 5893
CDBS Application ID No.: 123946

39° 06' 18.00" N Latitude
84° 33' 24.00" W Longitude (NAD 27)

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 1.25 1.25 kW ERP
Antenna Height Above Average Terrain: 155. 155. meters HAAT
Antenna Height Above Mean Sea Level: 379. 379. meters AMSL
Antenna Height Above Ground Level: 148. 148. meters AGL

Non-Directional Antenna ID No.: - Pattern Rotation: 0.00
Antenna Make: -Antenna Model: -
No. of antenna sections: -

WIZF KY ERLANGER USA

Licensee: BLUE CHIP BROADCASTING LICENSES, LTD.
Service Designation: **FA** USED Allotment record
Channel/Class: 265A Frequency: 100.9 MHz
File No.: ---Facility ID number: 5893
CDBS Application ID No.: 294052

39° 06' 18.00" N Latitude
84° 33' 24.00" W Longitude (NAD 27)

WWCD OH GROVE CITY USA

Licensee: FUN WITH RADIO, LLC
Service Designation: FM 'Full Service' FM station or application

Channel/Class: 266A Frequency: 101.1 MHz Licensed
File No.: BLH-19921109KC Facility ID number: 28644 Docket No. [87-178](#)
CDBS Application ID No.: 178560

39° 48' 50.00" N Latitude Site in Canadian Border Zone
83° 03' 19.00" W Longitude (NAD 27) Distance to Border: 210.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 6. 6. kW ERP
Antenna Height Above Average Terrain: 100. 100. meters HAAT
Antenna Height Above Mean Sea Level: 333. 333. meters AMSL
Antenna Height Above Ground Level: 94. 94. meters AGL

Section 73.215 contour protection station

Directional Antenna ID No.: 14150 Pattern Rotation: 0.00
Antenna Make: ODD Antenna Model: ODD900919IA
No. of antenna sections: -

Relative Field values for directional antenna [Relative Field polar plot](#)
Relative field values do not include any pattern rotation that may be indicated above.

0° 1.000	60° 1.000	120° 0.832	180° 0.428	240° 0.997	300° 1.000
10° 1.000	70° 1.000	130° 0.695	190° 0.504	250° 1.000	310° 1.000
20° 1.000	80° 1.000	140° 0.558	200° 0.621	260° 1.000	320° 1.000
30° 1.000	90° 1.000	150° 0.461	210° 0.769	270° 1.000	330° 1.000
40° 1.000	100° 0.985	160° 0.405	220° 0.886	280° 1.000	340° 1.000
50° 1.000	110° 0.929	170° 0.393	230° 0.962	290° 1.000	350° 1.000

WWCD OH GROVE CITY USA

Licensee: FUN WITH RADIO, LLC
Service Designation: **FA** USED Allotment record
Channel/Class: 266A Frequency: 101.1 MHz
File No.: ---Facility ID number: 28644 Docket No. 84-231
CDBS Application ID No.: 300059

39° 49' 40.00" N Latitude Site in Canadian Border Zone
83° 04' 20.00" W Longitude (NAD 27) Distance to Border: 208.0 km

NEW OH HILLSBORO USA

Licensee: WORLD EVANGELISTIC ENTERPRISE CORPORATION Service Designation: **FX** Translator Station
(retransmits signal, different channel than mai Channel/Class: 266D Frequency: 101.1 MHz
Application File No.: BNPFT-20030310BDR Facility ID number: 139539CDBS Application ID No.: 630466

39° 12' 8.00 " N Latitude
83° 36' 45.00" W Longitude (NAD 27)

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 0.055 0.055 kW ERP
Antenna Height Above Average Terrain: 0. 0. meters HAAT
Antenna Height Above Mean Sea Level: 352. 352. meters AMSL
Antenna Height Above Ground Level: 17. 17. meters AGL

Non-Directional Antenna ID No.: 47004 Pattern Rotation: 0.00

WFMG -

IN RICHMOND

USA

Petitioner: RODGERS BROADCASTING CORP.

Service Designation: **FR** Petition for Rulemaking to Add/Change an Allotment

Channel/Class: 267B1 Frequency: 101.3 MHz **Application**

File No.: RM-11113 Facility ID number: 0 Docket No. [05-17](#)

CDBS Application ID No.: 977022

39° 55' 9.00 " N Latitude

Site in Canadian Border Zone

84° 57' 47.00" W Longitude (NAD 27)

Distance to Border: - km

WFMG IN RICHMOND USA

Licensee: RODGERS BROADCASTING CORPORATION

Service Designation: **FM** 'Full Service' FM station or application

Channel/Class: 267B1 Frequency: 101.3 MHz **Licensed**

File No.: BLH-20060613ACE Facility ID number: 41845

CDBS Application ID No.: 1133564

39° 49' 41.00" N Latitude Site in Canadian Border Zone

84° 55' 57.00" W Longitude (NAD 27) Distance to Border: 275.0 km

Polarization: HorizontalVertical

Effective Radiated Power (ERP): 20.5 20.5 kW ERP

Antenna Height Above Average Terrain: 83. 83. meters HAAT

Antenna Height Above Mean Sea Level: 397. 397. meters AMSL

Antenna Height Above Ground Level: 95. 95. meters AGL

Section 73.215 contour protection station

WCWT-FM OH CENTERVILLE USA

Licensee: CENTERVILLE CITY BOARD OF EDUCATION
Service Designation: **FM** 'Full Service' FM station or application

Channel/Class: 268D Frequency: 101.5 MHz **Licensed**
File No.: BLED-19880819KD Facility ID number: 9780
CDBS Application ID No.: 117259

39° 37' 38.00" N Latitude Site in Canadian Border Zone
84° 08' 54.00" W Longitude (NAD 27) Distance to Border: 259.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 0.009 0.009 kW ERP
Antenna Height Above Average Terrain: 59. 59. meters HAAT
Antenna Height Above Mean Sea Level: 334. 334. meters AMSL
Antenna Height Above Ground Level: 18. 18. meters AGL

Non-Directional Antenna ID No.: - Pattern Rotation: 0.00
Antenna Make: -Antenna Model: -
No. of antenna sections: -

W268AR OH WILMINGTON USA

Licensee: EDUCATIONAL MEDIA FOUNDATION Service Designation: **FX** Translator Station (retransmits signal, different channel than mai Channel/Class: 268D Frequency: 101.5 MHz **Construction Permit**
File No.: BNPFT-20030807AHV Facility ID number: 138927CDBS Application ID No.: 676616

39° 30' 6.00 " N Latitude Site in Canadian Border Zone
83° 50' 33.00" W Longitude (NAD 27) Distance to Border: 261.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 0.013 0.013 kW ERP
Antenna Height Above Average Terrain: 0. 0. meters HAAT
Antenna Height Above Mean Sea Level: 410. 410. meters AMSL
Antenna Height Above Ground Level: 86. 86. meters AGL

Non-Directional Antenna ID No.: 60596 Pattern Rotation: 0.00

Additional Individual Tower Information from the Antenna Structure Registration database.
(Use the Registration Number link for detailed information.)

ASRN Site	Overall Height	Overall Height	NAD 83	Tower Coordinates	Convert to
Elevation	Above Ground	Above Mean Sea	-----		
(meters)	(meters)	Level (meters)	Latitude	Longitude	NAD 27
1014846	323.7	97.2	420.9 N	39° 30' 6.3" W	83° 50' 32.4" To NAD27

FAA: FAA Study No. [2002-AGL-7087-OE Obstruction / Airport Airspace searches](#)

W269BP IN RICHMOND USA

Licensee: EDUCATIONAL MEDIA FOUNDATION Service Designation: **FX** Translator Station (retransmits signal, different channel than mai Channel/Class: 269D Frequency: 101.7 MHz **Modification of Construction Permit** File No.: BMPFT-20050615ACC Facility ID number: 148424CDBS Application ID No.: 1068375

39° 50' 13.00" N Latitude Site in Canadian Border Zone
84° 52' 27.00" W Longitude (NAD 27) Distance to Border: 271.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 0.027 0.027 kW ERP
Antenna Height Above Average Terrain: 0. 0. meters HAAT
Antenna Height Above Mean Sea Level: 355. 355. meters AMSL
Antenna Height Above Ground Level: 52. 52. meters AGL

Non-Directional Antenna ID No.: 69879 Pattern Rotation: 0.00

Additional Individual Tower Information from the Antenna Structure Registration database.
(Use the Registration Number link for detailed information.)

ASRN Site Overall Height Overall Height NAD **83** Tower Coordinates Convert to
ElevationAbove Ground Above Mean Sea -----
(meters) (meters) Level (meters) Latitude Longitude
1205738 303.3 96.6 399.9 N 39° 50' 12.8" W 84° 52' 26.7" [To NAD27](#)

FAA: FAA Study No. [2004-AGL-6525-OE Obstruction / Airport Airspace searches](#)

WKSX OH URBANA USA

Licensee: BLUE CHIP BROADCASTING LICENSES, LTD
Service Designation: **FM** 'Full Service' FM station or application

Channel/Class: 269A Frequency: 101.7 MHz **Licensed**
File No.: BLH-19950324KD Facility ID number: 10113
CDBS Application ID No.: 207597

40° 02' 57.00" N Latitude Site in Canadian Border Zone
83° 46' 6.00 " W Longitude (NAD 27) Distance to Border: 203.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 3.2 3.2 kW ERP
Antenna Height Above Average Terrain: 124. 124. meters HAAT
Antenna Height Above Mean Sea Level: 453. 453. meters AMSL
Antenna Height Above Ground Level: 108. 108. meters AGL

Section 73.215 contour protection station

Non-Directional Antenna ID No.: - Pattern Rotation: 0.00
Antenna Make: -Antenna Model: -
No. of antenna sections: -

WKSW OH URBANA USA

Licensee: BLUE CHIP BROADCASTING LICENSES, LTD
Service Designation: **FA** USED Allotment record
Channel/Class: 269A Frequency: 101.7 MHz
File No.: ---Facility ID number: 10113
CDBS Application ID No.: 294432

40° 06' 12.00" N Latitude Site in Canadian Border Zone
83° 42' 52.00" W Longitude (NAD 27) Distance to Border: 195.0 km

WKRQ OH CINCINNATI USA

Licensee: CBS RADIO STATIONS INC.

Service Designation: **FA** USED Allotment record

Channel/Class: 270B Frequency: 101.9 MHz

File No.: ---Facility ID number: 11276

CDBS Application ID No.: 294514

39° 06' 58.00" N Latitude

84° 30' 5.00 " W Longitude (NAD 27)

WKRQ OH CINCINNATI USA

Licensee: CBS RADIO STATIONS INC.
Service Designation: FM 'Full Service' FM station or application

Channel/Class: 270B Frequency: 101.9 MHz Licensed
File No.: BLH-19991004ABU Facility ID number: 11276
CDBS Application ID No.: 401692

39° 06' 59.00" N Latitude
84° 30' 7.00 " W Longitude (NAD 27)

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 16. 16. kW ERP
Antenna Height Above Average Terrain: 264. 264. meters HAAT
Antenna Height Above Mean Sea Level: 483. 483. meters AMSL
Antenna Height Above Ground Level: 247. 247. meters AGL

Non-Directional Antenna ID No.: 28271 Pattern Rotation: 0.00

Antenna Make: ERI Antenna Model: 1083-2CP-DA No. of
antenna sections: 2

Additional Individual Tower Information from the Antenna Structure Registration database. (Use
the Registration Number link for detailed information.)

ASRN Site Overall Height Overall Height NAD 83 Tower Coordinates ElevationAbove Ground Above Mean Sea -----
------(meters) (meters) Level (meters) Latitude Longitude ^{NAD 27} [1019014](#) 236.5
294.6 531.1 N 39° 6' 59.0" W 84° 30' 7.0" [To NAD27](#)

FAA: FAA Study No. [1996-AGL-4129-OE Obstruction / Airport Airspace searches](#)

WKRQ OH CINCINNATI USA

Licensee: CBS RADIO STATIONS INC.
Service Designation: **FS** Auxiliary station (backup for the main station)
Channel/Class: 270B Frequency: 101.9 MHz **Licensed**
File No.: BXLH-20051118ABH Facility ID number: 11276
CDBS Application ID No.: 1099062

39° 06' 59.00" N Latitude
84° 30' 7.00 " W Longitude (NAD 27)

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 16. 16. kW ERP
Antenna Height Above Average Terrain: 190.3 190.3 meters HAAT
Antenna Height Above Mean Sea Level: 413.3 413.3 meters AMSL
Antenna Height Above Ground Level: 176.8 176.8 meters AGL

Non-Directional Antenna ID No.: - Pattern Rotation: 0.00
Antenna Make: HAR Antenna Model: FMS-5
No. of antenna sections: 5

Additional Individual Tower Information from the Antenna Structure Registration database.
(Use the Registration Number link for detailed information.)

ASRN Site Overall Height	Overall Height NAD 83	Tower Coordinates	ElevationAbove Ground	Above Mean Sea	-----
			Convert to	NAD 27	
-----	(meters)	(meters) Level	(meters)	Latitude Longitude	1019014 236.5
294.6	531.1	N 39° 6' 59.0" W 84° 30' 7.0"	To NAD27		

FAA: FAA Study No. [1996-AGL-4129-OE Obstruction / Airport Airspace searches](#)

W270AT OH DAYTON USA

Licensee: SPIRIT COMMUNICATIONS, INC. Service Designation: **FX** Translator Station (retransmits signal, different channel than mai Channel/Class: 270D Frequency: 101.9 MHz **Construction Permit**
File No.: BNPFT-20030828AVI Facility ID number: 157110CDBS Application ID No.: 682442

39° 48' 43.09" N Latitude Site in Canadian Border Zone
84° 01' 27.44" W Longitude (NAD 27) Distance to Border: 236.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 0.007 0.007 kW ERP
Antenna Height Above Average Terrain: 0. 0. meters HAAT
Antenna Height Above Mean Sea Level: 284. 284. meters AMSL
Antenna Height Above Ground Level: 29. 29. meters AGL

Non-Directional Antenna ID No.: 63168 Pattern Rotation: 0.00

Additional Individual Tower Information from the Antenna Structure Registration database.
(Use the Registration Number link for detailed information.)

ASRN Site Overall Height Overall HeightNAD **83** Tower Coordinates Convert to
ElevationAbove Ground Above Mean Sea -----
(meters) (meters) Level (meters) Latitude Longitude NAD 27
[1206541](#) 254.8 38.1 292.9 N 39° 48' 43.3" W 84° 1' 27.2" [To NAD27](#)

FAA: FAA Study No. [1999-AGL-4978-OE Obstruction / Airport Airspace searches](#)

WIMT OH LIMA USA

Licensee: JACOR BROADCASTING CORPORATION
Service Designation: **FA** USED Allotment record
Channel/Class: 271B Frequency: 102.1 MHz
File No.: ---Facility ID number: 37497
CDBS Application ID No.: 294561

40° 38' 3.00 " N Latitude Site in Canadian Border Zone
84° 12' 29.00" W Longitude (NAD 27) Distance to Border: - km

WIMT OH LIMA USA

Licensee: JACOR BROADCASTING CORPORATION
Service Designation: **FS** Auxiliary station (backup for the main station)
Channel/Class: 271B Frequency: 102.1 MHz **Construction Permit**
File No.: BXPB-20010515AAM Facility ID number: 37497
CDBS Application ID No.: 564672

40° 39' 50.00" N Latitude Site in Canadian Border Zone
84° 05' 7.00 " W Longitude (NAD 27) Distance to Border: 158.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 13. 13. kW ERP
Antenna Height Above Average Terrain: 161. 161. meters HAAT
Antenna Height Above Mean Sea Level: 437. 437. meters AMSL
Antenna Height Above Ground Level: 146. 146. meters AGL

Non-Directional Antenna ID No.: - Pattern Rotation: 0.00

Additional Individual Tower Information from the Antenna Structure Registration database. (Use the Registration Number link for detailed information.)

ASRN Site Overall Height Overall Height NAD **83** Tower Coordinates ElevationAbove Ground Above Mean Sea -----
------(meters) (meters) Level (meters) Latitude Longitude ^{NAD 27} [1011941](#) 291.1
152.4 443.5 N 40° 39' 50.0" W 84° 5' 7.0" [To NAD27](#)

FAA: FAA Study No. [1999-AGL-2609-OE Obstruction / Airport Airspace searches](#)

WIMT OH LIMA USA

Licensee: JACOR BROADCASTING CORPORATION
Service Designation: **FM** 'Full Service' FM station or application

Channel/Class: 271B Frequency: 102.1 MHz **Licensed**
File No.: BMLH-20050707ADI Facility ID number: 37497
CDBS Application ID No.: 1071348

40° 38' 3.00 " N Latitude Site in Canadian Border Zone
84° 12' 29.00" W Longitude (NAD 27) Distance to Border: 166.0 km

Polarization: HorizontalVertical
Effective Radiated Power (ERP): 11. 11. kW ERP
Antenna Height Above Average Terrain: 323. 323. meters HAAT
Antenna Height Above Mean Sea Level: 590. 590. meters AMSL
Antenna Height Above Ground Level: 327. 327. meters AGL

Non-Directional Antenna ID No.: - Pattern Rotation: 0.00
Antenna Make: ERI Antenna Model: SPX-2AE
No. of antenna sections: 2

Additional Individual Tower Information from the Antenna Structure Registration database.
(Use the Registration Number link for detailed information.)

ASRN Site Overall Height Overall HeightNAD **83** Tower Coordinates Convert to ElevationAbove Ground Above Mean Sea -----
------(meters) (meters) Level (meters) Latitude Longitude ^{NAD 27} [1012273](#) 263.3
341.1 604.4 N 40° 38' 3.1" W 84° 12' 28.8" [To NAD27](#)

FAA: FAA Study No. [1993-AGL-1028-OE](#) Obstruction / Airport Airspace searches

TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	778.1	60.0	61.7	295.8	120.0	48.9	185.7
2.0	99.6	771.9	62.0	64.9	328.0	122.0	45.4	160.3
4.0	98.4	753.4	64.0	67.9	358.3	124.0	41.7	135.3
6.0	96.4	723.5	66.0	70.5	387.2	126.0	37.9	111.8
8.0	93.7	683.0	68.0	73.0	415.0	128.0	34.0	89.8
10.0	90.2	633.6	70.0	75.1	438.9	130.0	29.8	69.2
12.0	86.1	576.9	72.0	76.8	458.6	132.0	25.4	50.3
14.0	81.3	514.9	74.0	78.2	475.6	134.0	20.8	33.7
16.0	76.0	449.7	76.0	79.1	486.5	136.0	16.0	19.9
18.0	70.2	383.3	78.0	79.6	492.8	138.0	11.0	9.3
20.0	63.9	317.8	80.0	80.0	498.2	140.0	5.8	2.6
22.0	57.3	255.1	82.0	80.1	499.5	142.0	0.6	0.0
24.0	50.3	197.0	84.0	80.0	498.5	144.0	4.6	1.7
26.0	43.2	145.1	86.0	79.8	495.2	146.0	9.9	7.7
28.0	35.9	100.4	88.0	79.3	489.7	148.0	15.2	18.1
30.0	28.5	63.4	90.0	78.7	482.3	150.0	20.5	32.8
32.0	21.1	34.5	92.0	78.0	473.0	152.0	25.8	51.7
34.0	13.6	14.5	94.0	77.0	461.9	154.0	30.9	74.2
36.0	6.3	3.1	96.0	75.8	447.1	156.0	35.9	100.5
38.0	0.9	0.1	98.0	74.2	428.8	158.0	40.9	130.2
40.0	7.9	4.8	100.0	72.5	409.1	160.0	45.6	162.1
42.0	14.6	16.6	102.0	71.0	391.9	162.0	50.1	195.5
44.0	21.1	34.6	104.0	69.3	373.2	164.0	54.3	229.4
46.0	27.3	58.0	106.0	67.4	353.2	166.0	58.1	262.7
48.0	33.2	85.8	108.0	65.3	332.0	168.0	61.5	294.3
50.0	38.8	117.2	110.0	63.1	309.5	170.0	64.5	323.3
52.0	44.1	151.5	112.0	60.3	283.3	172.0	66.9	348.5
54.0	49.1	187.7	114.0	57.4	256.6	174.0	68.9	369.1
56.0	53.7	224.4	116.0	54.6	232.1	176.0	70.3	384.4
58.0	57.9	260.4	118.0	51.9	209.2	178.0	71.1	393.8

TX station: BGK77/2

Site name:

Frequency: 98.00 MHz

Horizontal diagram at 0.0° depres. (Total antenna)

Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)	Az (°)	Er (%)	ERP (W)
0.0	98.3	778.1	120.0	79.2	505.6	240.0	80.2	518.5
10.0	98.3	778.1	130.0	76.2	468.0	250.0	85.3	585.4
20.0	98.3	778.1	140.0	73.2	431.7	260.0	90.9	666.0
30.0	98.8	786.1	150.0	71.0	406.5	270.0	95.3	731.2
40.0	98.8	786.1	160.0	70.2	397.0	280.0	97.3	762.3
50.0	99.2	792.9	170.0	70.2	397.0	290.0	98.3	778.1
60.0	100.0	805.3	180.0	70.2	397.0	300.0	100.0	805.3
70.0	99.1	791.4	190.0	70.2	397.0	310.0	99.2	792.9
80.0	96.3	746.7	200.0	70.2	397.0	320.0	98.8	786.1
90.0	92.3	685.7	210.0	71.2	408.4	330.0	98.8	786.1
100.0	87.3	613.2	220.0	73.2	431.7	340.0	98.3	778.1
110.0	83.2	558.1	230.0	77.2	480.4	350.0	98.3	778.1



Audio Division

(202)-418-2700

Antenna Height Above Average Terrain (HAAT) / Contour Calculations

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Antenna Height Above Average Terrain Calculations -- Input

Latitude **39 49 47.0 North**
Longitude **84 7 2.0 West** (NAD 27)

Height of antenna radiation center above mean sea level [RCAMSL] = **297.0** meters

Number of Evenly Spaced Radials = 360 0° is referenced to True North

Results:

Calculated HAAT= 30. meters

(Antenna Height Above Average Terrain)
using the 30 second FCC/NGDC terrain data)

Antenna Radiation Center Heights Above Individual Radials:

0.0°	6.8 meters
1.0°	6.7 meters
2.0°	6.7 meters
3.0°	6.6 meters
4.0°	6.7 meters
5.0°	6.9 meters
6.0°	7.1 meters
7.0°	7.2 meters
8.0°	7.2 meters
9.0°	7.3 meters
10.0°	7.5 meters
11.0°	7.8 meters
12.0°	8.2 meters
13.0°	8.6 meters
14.0°	9.2 meters

15.0°	9.9 meters
16.0°	11.0 meters
17.0°	12.1 meters
18.0°	13.3 meters
19.0°	14.2 meters
20.0°	15.0 meters
21.0°	15.9 meters
22.0°	17.0 meters
23.0°	17.9 meters
24.0°	18.6 meters
25.0°	19.0 meters
26.0°	19.3 meters
27.0°	19.9 meters
28.0°	20.7 meters
29.0°	21.6 meters
30.0°	22.5 meters
31.0°	23.3 meters
32.0°	23.9 meters
33.0°	24.4 meters
34.0°	24.8 meters
35.0°	25.1 meters
36.0°	25.1 meters
37.0°	24.8 meters
38.0°	24.4 meters
39.0°	24.0 meters
40.0°	24.1 meters
41.0°	24.3 meters
42.0°	24.6 meters
43.0°	24.9 meters
44.0°	25.2 meters
45.0°	25.5 meters
46.0°	26.3 meters
47.0°	27.6 meters
48.0°	28.8 meters
49.0°	29.7 meters
50.0°	30.3 meters
51.0°	30.8 meters
52.0°	31.0 meters
53.0°	31.1 meters
54.0°	31.3 meters
55.0°	31.4 meters
56.0°	31.7 meters
57.0°	32.1 meters
58.0°	32.4 meters
59.0°	32.7 meters

60.0°	32.9 meters
61.0°	33.0 meters
62.0°	33.1 meters
63.0°	33.1 meters
64.0°	33.1 meters
65.0°	33.2 meters
66.0°	33.3 meters
67.0°	33.4 meters
68.0°	33.4 meters
69.0°	33.4 meters
70.0°	33.3 meters
71.0°	33.3 meters
72.0°	33.3 meters
73.0°	33.2 meters
74.0°	33.2 meters
75.0°	33.2 meters
76.0°	33.3 meters
77.0°	33.3 meters
78.0°	32.9 meters
79.0°	32.0 meters
80.0°	31.0 meters
81.0°	30.0 meters
82.0°	29.7 meters
83.0°	29.5 meters
84.0°	29.0 meters
85.0°	28.5 meters
86.0°	28.1 meters
87.0°	27.7 meters
88.0°	27.5 meters
89.0°	27.8 meters
90.0°	28.3 meters
91.0°	28.8 meters
92.0°	29.3 meters
93.0°	29.6 meters
94.0°	29.7 meters
95.0°	29.5 meters
96.0°	29.1 meters
97.0°	28.7 meters
98.0°	28.3 meters
99.0°	28.2 meters
100.0°	28.1 meters
101.0°	27.9 meters
102.0°	27.9 meters
103.0°	28.3 meters
104.0°	28.5 meters

105.0°	28.7 meters
106.0°	28.8 meters
107.0°	28.9 meters
108.0°	29.0 meters
109.0°	29.2 meters
110.0°	29.4 meters
111.0°	29.6 meters
112.0°	30.0 meters
113.0°	30.7 meters
114.0°	31.5 meters
115.0°	32.2 meters
116.0°	32.6 meters
117.0°	32.6 meters
118.0°	32.4 meters
119.0°	32.1 meters
120.0°	32.2 meters
121.0°	32.6 meters
122.0°	33.1 meters
123.0°	33.6 meters
124.0°	33.9 meters
125.0°	34.2 meters
126.0°	34.3 meters
127.0°	34.4 meters
128.0°	34.2 meters
129.0°	34.0 meters
130.0°	33.6 meters
131.0°	33.2 meters
132.0°	32.5 meters
133.0°	31.9 meters
134.0°	31.4 meters
135.0°	30.7 meters
136.0°	29.9 meters
137.0°	29.1 meters
138.0°	28.4 meters
139.0°	27.8 meters
140.0°	26.9 meters
141.0°	25.9 meters
142.0°	25.1 meters
143.0°	24.6 meters
144.0°	24.3 meters
145.0°	23.7 meters
146.0°	23.2 meters
147.0°	22.7 meters
148.0°	22.3 meters
149.0°	22.0 meters

150.0°	21.8 meters
151.0°	21.7 meters
152.0°	21.7 meters
153.0°	21.3 meters
154.0°	20.9 meters
155.0°	20.9 meters
156.0°	21.6 meters
157.0°	22.9 meters
158.0°	24.2 meters
159.0°	25.5 meters
160.0°	26.9 meters
161.0°	28.4 meters
162.0°	29.5 meters
163.0°	29.9 meters
164.0°	29.9 meters
165.0°	29.8 meters
166.0°	29.4 meters
167.0°	29.0 meters
168.0°	28.2 meters
169.0°	27.5 meters
170.0°	27.0 meters
171.0°	27.0 meters
172.0°	27.4 meters
173.0°	27.7 meters
174.0°	28.3 meters
175.0°	29.2 meters
176.0°	30.1 meters
177.0°	31.0 meters
178.0°	31.8 meters
179.0°	32.6 meters
180.0°	33.0 meters
181.0°	31.9 meters
182.0°	30.8 meters
183.0°	29.9 meters
184.0°	29.0 meters
185.0°	28.0 meters
186.0°	27.2 meters
187.0°	26.7 meters
188.0°	26.0 meters
189.0°	25.2 meters
190.0°	24.4 meters
191.0°	23.7 meters
192.0°	23.0 meters
193.0°	22.4 meters
194.0°	21.9 meters

195.0°	21.7 meters
196.0°	22.0 meters
197.0°	22.9 meters
198.0°	24.4 meters
199.0°	26.6 meters
200.0°	29.1 meters
201.0°	31.4 meters
202.0°	33.9 meters
203.0°	37.1 meters
204.0°	40.7 meters
205.0°	43.5 meters
206.0°	45.5 meters
207.0°	47.4 meters
208.0°	49.8 meters
209.0°	52.2 meters
210.0°	53.5 meters
211.0°	53.8 meters
212.0°	54.0 meters
213.0°	54.6 meters
214.0°	55.3 meters
215.0°	56.1 meters
216.0°	56.7 meters
217.0°	56.9 meters
218.0°	57.0 meters
219.0°	57.0 meters
220.0°	57.0 meters
221.0°	57.0 meters
222.0°	56.8 meters
223.0°	56.2 meters
224.0°	55.3 meters
225.0°	54.3 meters
226.0°	53.5 meters
227.0°	52.8 meters
228.0°	52.4 meters
229.0°	52.2 meters
230.0°	52.0 meters
231.0°	51.8 meters
232.0°	51.5 meters
233.0°	50.8 meters
234.0°	49.9 meters
235.0°	48.9 meters
236.0°	47.8 meters
237.0°	46.9 meters
238.0°	46.3 meters
239.0°	46.0 meters

240.0°	46.0 meters
241.0°	45.9 meters
242.0°	45.5 meters
243.0°	44.9 meters
244.0°	44.0 meters
245.0°	43.1 meters
246.0°	42.4 meters
247.0°	41.9 meters
248.0°	41.4 meters
249.0°	40.7 meters
250.0°	39.7 meters
251.0°	38.6 meters
252.0°	37.4 meters
253.0°	36.8 meters
254.0°	36.3 meters
255.0°	36.0 meters
256.0°	35.8 meters
257.0°	35.7 meters
258.0°	35.8 meters
259.0°	36.0 meters
260.0°	35.9 meters
261.0°	35.7 meters
262.0°	35.3 meters
263.0°	35.0 meters
264.0°	35.4 meters
265.0°	36.1 meters
266.0°	37.0 meters
267.0°	37.8 meters
268.0°	38.1 meters
269.0°	38.4 meters
270.0°	38.7 meters
271.0°	39.0 meters
272.0°	39.3 meters
273.0°	39.3 meters
274.0°	39.4 meters
275.0°	39.5 meters
276.0°	39.6 meters
277.0°	39.8 meters
278.0°	39.1 meters
279.0°	38.3 meters
280.0°	37.5 meters
281.0°	36.6 meters
282.0°	35.5 meters
283.0°	34.9 meters
284.0°	34.7 meters

285.0°	34.1 meters
286.0°	33.6 meters
287.0°	32.5 meters
288.0°	30.7 meters
289.0°	28.8 meters
290.0°	26.8 meters
291.0°	24.9 meters
292.0°	23.2 meters
293.0°	21.4 meters
294.0°	19.5 meters
295.0°	17.5 meters
296.0°	15.9 meters
297.0°	14.7 meters
298.0°	14.2 meters
299.0°	14.1 meters
300.0°	14.4 meters
301.0°	14.6 meters
302.0°	14.9 meters
303.0°	15.3 meters
304.0°	15.7 meters
305.0°	16.2 meters
306.0°	16.8 meters
307.0°	17.3 meters
308.0°	17.5 meters
309.0°	17.7 meters
310.0°	18.0 meters
311.0°	18.4 meters
312.0°	18.6 meters
313.0°	18.8 meters
314.0°	18.8 meters
315.0°	18.8 meters
316.0°	18.8 meters
317.0°	19.0 meters
318.0°	19.4 meters
319.0°	20.0 meters
320.0°	20.8 meters
321.0°	21.8 meters
322.0°	23.2 meters
323.0°	24.6 meters
324.0°	26.1 meters
325.0°	27.5 meters
326.0°	28.6 meters
327.0°	29.4 meters
328.0°	29.9 meters
329.0°	30.4 meters

330.0°	31.0 meters
331.0°	31.6 meters
332.0°	32.1 meters
333.0°	32.3 meters
334.0°	32.4 meters
335.0°	32.2 meters
336.0°	31.9 meters
337.0°	31.5 meters
338.0°	31.1 meters
339.0°	30.9 meters
340.0°	31.2 meters
341.0°	31.6 meters
342.0°	31.9 meters
343.0°	31.7 meters
344.0°	30.9 meters
345.0°	29.7 meters
346.0°	28.2 meters
347.0°	26.8 meters
348.0°	24.8 meters
349.0°	22.3 meters
350.0°	19.7 meters
351.0°	17.6 meters
352.0°	15.3 meters
353.0°	12.0 meters
354.0°	9.2 meters
355.0°	7.7 meters
356.0°	7.6 meters
357.0°	7.6 meters
358.0°	7.3 meters
359.0°	7.0 meters

[New Antenna Height Above Average Terrain \(HAAT\) calculation?](#)

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NICOM BKG-77-2

Two-Bay: 0.90 efficiency

Reference Degrees	Relative Field	Power Gain	ERP with 178W at antenna	Azimuth with 40 degree offset	Ground HAAT (m)	Rad.Ctr. HAAT (m)
0	0.983	0.9663	155	40	11	24
10	0.983	0.9663	155	50	17	30
20	0.983	0.9663	155	60	20	33
30	0.988	0.9761	156	70	20	33
40	0.988	0.9761	156	80	18	31
50	0.992	0.9841	158	90	15	28
60	1.000	1.0000	160	100	15	28
70	0.991	0.9821	157	110	16	29
80	0.963	0.9274	149	120	19	32
90	0.923	0.8519	136	130	21	34
100	0.873	0.7621	122	140	14	27
110	0.832	0.6922	111	150	9	22
120	0.792	0.6273	100	160	14	27
130	0.762	0.5806	93	170	14	27
140	0.732	0.5358	86	180	20	33
150	0.710	0.5041	81	190	12	25
160	0.702	0.4928	79	200	16	29
170	0.702	0.4928	79	210	41	54
180	0.702	0.4928	79	220	44	57
190	0.702	0.4928	79	230	39	52
200	0.702	0.4928	79	240	33	46
210	0.712	0.5069	81	250	27	40
220	0.732	0.5358	86	260	23	36
230	0.772	0.5960	95	270	26	39
240	0.802	0.6432	103	280	24	37
250	0.853	0.7276	117	290	14	27
260	0.909	0.8263	132	300	2	15
270	0.953	0.9082	145	310	5	18
280	0.973	0.9467	152	320	8	21
290	0.983	0.9663	155	330	18	31
300	1.000	1.0000	160	340	18	31
310	0.992	0.9841	158	350	6	19
320	0.988	0.9761	156	0	-6	7
330	0.988	0.9761	156	10	-5	8
340	0.983	0.9663	155	20	2	15
350	0.983	0.9663	155	30	10	23

Max 93W at 186.8 degrees to protect WCWT-FM.

Max 217W at 50.5 degrees to protect WKSU-FM.

The 60dBu overlaps between current the translator CP (BNPFT-20030829AIC) and this

Minor Change (as amended) is from 140 to 190 degrees as measured from the new transmitter site

FCC 854 Main Form	FCC Application for Antenna Structure Registration	Approved by OMB 3060 - 0139 Est. Public Burden per Response: 30 minutes File Number: A0513429
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Purpose of Filing

1. Purpose of this filing: Application for the registration of a new antenna structure
2A. For purpose codes of WD or AM , provide the file number of the pending application currently on file with the FCC: A0513429
2B. If purpose codes of MD, CA, AU, DI, NT, DU or OC provide FCC Antenna Structure Registration Number: 1254474
2C. If purpose code is MD or NT , provide date constructed or Last altered (mmddyyyy):
2D. If purpose code is DI , give date of dismantlement (mmddyyyy):

Antenna Structure Ownership Information

3) Owner/Assignee FCC Registration Number (FRN): 0002702728			
4) Assignor FCC Registration Number (FRN): null			
5) Legal Owner of Structure/Assignee First Name (if individual):	Middle Initial:	Last Name:	Suffix:
6) Business Name (if other than Individual): L & M Enterprises			
7) Attention To:			
8) P. O. Box:	And/Or	9) Street Address: 5281 Bellefontaine Road	
10) City: Huber Heights	11) State: OH	12) ZIP Code: 45424	
13) Telephone Number: (937)604-6698		14) E-Mail Address: None	

Contact Representative Information (If the Owner/Assignee is a business or contact representative is different from the Owner/Assignee)

15) First Name: Bradlee	MI: J	Last Name: Beer	Suffix:
16) Business Name:			
17) P.O. Box:	And/Or	18) Street Address: 4414 Castle Gate Drive	
19) City: Beavercreek	20) State: OH	21) Zip Code: 45432	
22) Telephone Number: (937)429-0594		23) E-Mail Address: beerb@saic.com	

Antenna Structure

24) NAD83 Antenna Structure Latitude (DD-MM-SS.S): 39-49-47.0 (N)N or S	25) NAD83 Antenna Structure Longitude (DDD-MM-SS.S): 84-7-2.0 (W)N or S
26) Address or Geographical Location: 5281 Bellefontaine Road	
27) City: Huber Heights	28) State: OH
29) Elevation of site above mean sea level (refer to "a" in antenna structure examples):	284.0 meters
30) Overall (highest) height above ground (AGL) of an antenna structure INCLUDING all appurtenances (antennas, dishes, lightning rods, obstruction lighting, etc.) (refer to "c" in antenna structure examples):	15.0 meters
31) Overall height above mean sea level (sum total of items 29 and 30):	299.0 meters
32) Overall height above ground level (AGL) of the supporting structure itself WITHOUT appurtenances (refer to "b" in antenna structure examples):	15.0 meters
33) Indicate the code for the type of structure on which antenna will be mounted (i.e., pole, building, water tank, silo, tower, etc.) (See	

Instructions): TOWER	
34-35) If type of structure is an Array, provide coordinates for center of the array below:	
34) NAD83 Array Center Latitude (DD-MM-SS.S): -- (N)N or S	35) NAD83 Array Center Longitude (DDD-MM-SS.S): -- (W)N or S

FAA Notification

36) FAA Study Number: 2006-AGL-4777-OE	37) Date Issued (mmddyyyy): 07/28/2006
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Environmental Assessment

38) (N)	Yes	Would a Commission grant of Authorization for this location be an action which may have significant environmental effect? See Section 1.1307 of 47 CFR. If 'YES', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.
	No	

Certification Statements

1) The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
2) The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. See Section 1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of 'party to the application' as used in this certification.

Signature

39) Typed or Printed Name of Party Authorized to Sign

First Name: Bradlee	MI: J	Last Name: Beer	Suffix:
40) Title: Consulting Engineer			
41) Signature: Bradlee J Beer		42) Date (mmddyyyy): 07/30/2006	
WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, § 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, § 503).			