

Non-Interference Compliance

Regarding Facility id 149862

Channel 298

Description of Exhibit 12 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 plot and 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 a high resolution aerial photo of the vicinity surrounding the proposed translator's tower site provided by the U.S. Geological Survey's National Aerial Photography Program. It has been included to provide clarification of the nature of the buildings in the vicinity.

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.

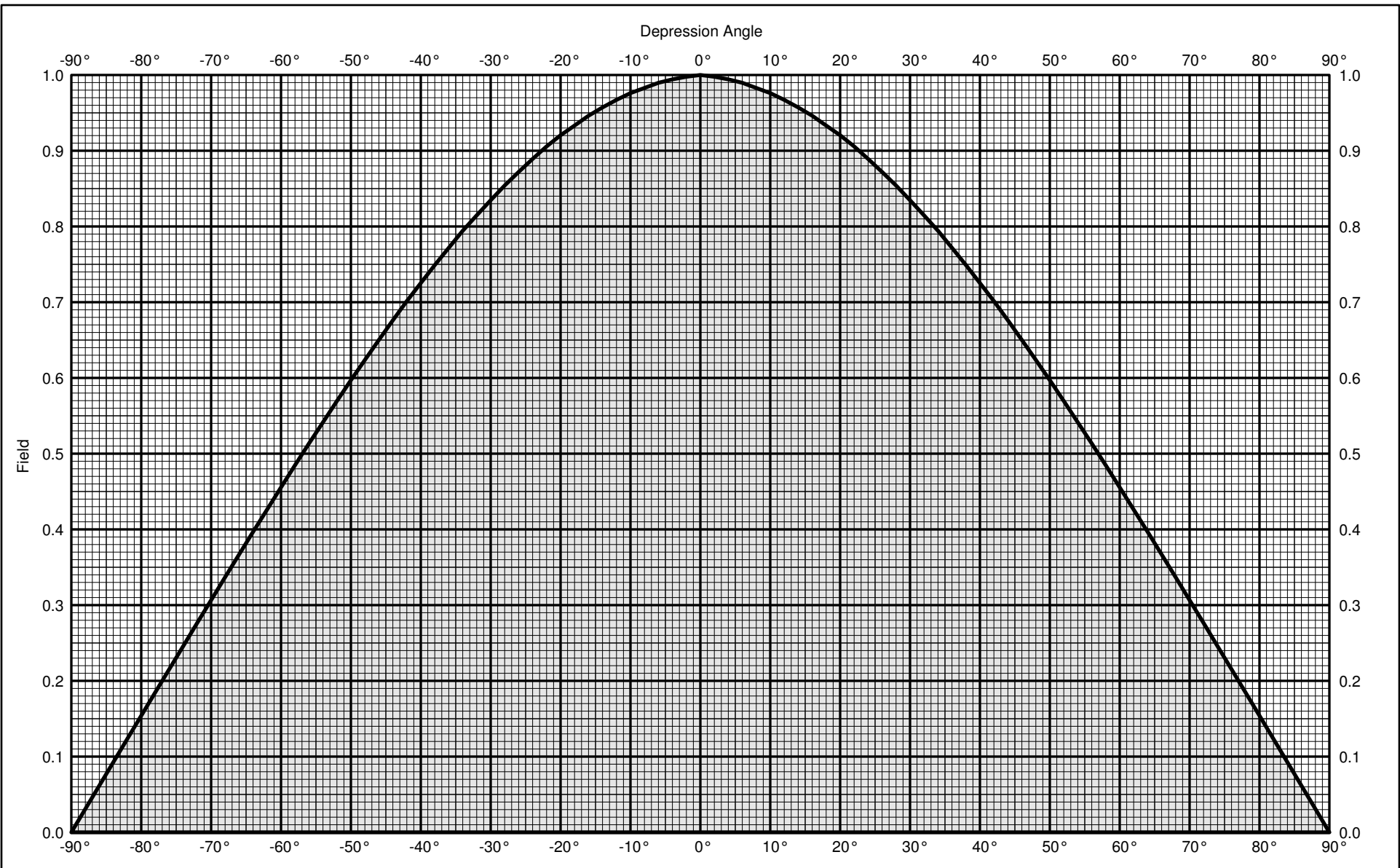
Application_id	File Number	Callsign	Contour at Tower	Min. Contour
299096	BLH6136	KFIN	114.4	103.9
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				103.9

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 **103.9 dBμ**, this makes the proposed translator's worst-case interfering contour **143.9 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **5.3 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 **88.5 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. Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), 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:	GP-FM
CORAGL:	91 m
Maximum ERP:	0.14 kW
Interfering Contour:	143.9 dBμ
Max Int. Contour Distance:	5.3 m
Min Ground Clearance:	88.5 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	.992	137.8	5.3	5.2	90.5
10	.976	133.4	5.2	5.1	90.1
15	.952	126.9	5.0	4.9	89.7
20	.920	118.5	4.9	4.6	89.3
25	.881	108.7	4.7	4.2	89.0
30	.835	97.6	4.4	3.8	88.8
35	.783	85.8	4.1	3.4	88.6
40	.725	73.6	3.8	2.9	88.5
45	.663	61.5	3.5	2.5	88.5
50	.597	49.9	3.2	2.0	88.6
55	.527	38.9	2.8	1.6	88.7
60	.456	29.1	2.4	1.2	88.9
65	.382	20.4	2.0	0.9	89.2
70	.307	13.2	1.6	0.6	89.5
75	.231	7.5	1.2	0.3	89.8
80	.154	3.3	0.8	0.1	90.2
85	.077	0.8	0.4	0.0	90.6
90	.010	0.0	0.1	0.0	90.9
Minimum Clearance above TGL:					88.5 m



GP-FM Groundplane

Vertical radiation pattern

FM

0.0 dBd (2.15 dBi)

Vertical polarization



KATHREIN
SCALA DIVISION
 Post Office Box 4580 Phone:(541)779-6500
 Medford, OR 97501 (USA) Fax:(541)779-3991
<http://www.kathrein-scala.com>



GP-FM Groundplane

Vertical radiation pattern

FM

0.0 dBd (2.15 dBi)

Vertical polarization

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
-90	0.010	-40.00	-40.00	0.00	-45	0.663	-3.57	-3.57	0.44
-89	0.015	-36.24	-36.24	0.00	-44	0.676	-3.40	-3.40	0.46
-88	0.031	-30.22	-30.22	0.00	-43	0.689	-3.24	-3.24	0.47
-87	0.046	-26.70	-26.70	0.00	-42	0.701	-3.08	-3.08	0.49
-86	0.062	-24.20	-24.20	0.00	-41	0.713	-2.93	-2.93	0.51
-85	0.077	-22.26	-22.26	0.01	-40	0.725	-2.79	-2.79	0.53
-84	0.092	-20.68	-20.68	0.01	-39	0.737	-2.65	-2.65	0.54
-83	0.108	-19.34	-19.34	0.01	-38	0.749	-2.51	-2.51	0.56
-82	0.123	-18.18	-18.18	0.02	-37	0.760	-2.38	-2.38	0.58
-81	0.139	-17.16	-17.16	0.02	-36	0.772	-2.25	-2.25	0.60
-80	0.154	-16.25	-16.25	0.02	-35	0.783	-2.12	-2.12	0.61
-79	0.169	-15.42	-15.42	0.03	-34	0.794	-2.00	-2.00	0.63
-78	0.185	-14.67	-14.67	0.03	-33	0.805	-1.89	-1.89	0.65
-77	0.200	-13.98	-13.98	0.04	-32	0.815	-1.78	-1.78	0.66
-76	0.215	-13.34	-13.34	0.05	-31	0.825	-1.67	-1.67	0.68
-75	0.231	-12.75	-12.75	0.05	-30	0.835	-1.57	-1.57	0.70
-74	0.246	-12.19	-12.19	0.06	-29	0.844	-1.47	-1.47	0.71
-73	0.261	-11.67	-11.67	0.07	-28	0.854	-1.37	-1.37	0.73
-72	0.276	-11.17	-11.17	0.08	-27	0.863	-1.28	-1.28	0.74
-71	0.291	-10.71	-10.71	0.08	-26	0.872	-1.19	-1.19	0.76
-70	0.307	-10.27	-10.27	0.09	-25	0.881	-1.10	-1.10	0.78
-69	0.322	-9.85	-9.85	0.10	-24	0.889	-1.02	-1.02	0.79
-68	0.337	-9.45	-9.45	0.11	-23	0.897	-0.94	-0.94	0.81
-67	0.352	-9.07	-9.07	0.12	-22	0.906	-0.86	-0.86	0.82
-66	0.367	-8.71	-8.71	0.13	-21	0.913	-0.79	-0.79	0.83
-65	0.382	-8.36	-8.36	0.15	-20	0.920	-0.72	-0.72	0.85
-64	0.397	-8.03	-8.03	0.16	-19	0.927	-0.66	-0.66	0.86
-63	0.411	-7.71	-7.71	0.17	-18	0.933	-0.60	-0.60	0.87
-62	0.426	-7.41	-7.41	0.18	-17	0.940	-0.54	-0.54	0.88
-61	0.441	-7.12	-7.12	0.19	-16	0.946	-0.48	-0.48	0.90
-60	0.456	-6.83	-6.83	0.21	-15	0.952	-0.43	-0.43	0.91
-59	0.470	-6.56	-6.56	0.22	-14	0.957	-0.38	-0.38	0.92
-58	0.485	-6.29	-6.29	0.23	-13	0.962	-0.33	-0.33	0.93
-57	0.499	-6.04	-6.04	0.25	-12	0.967	-0.29	-0.29	0.94
-56	0.513	-5.79	-5.79	0.26	-11	0.972	-0.25	-0.25	0.94
-55	0.527	-5.56	-5.56	0.28	-10	0.976	-0.21	-0.21	0.95
-54	0.541	-5.33	-5.33	0.29	-9	0.979	-0.18	-0.18	0.96
-53	0.555	-5.11	-5.11	0.31	-8	0.983	-0.15	-0.15	0.97
-52	0.570	-4.89	-4.89	0.32	-7	0.986	-0.12	-0.12	0.97
-51	0.583	-4.68	-4.68	0.34	-6	0.990	-0.09	-0.09	0.98
-50	0.597	-4.48	-4.48	0.36	-5	0.992	-0.07	-0.07	0.98
-49	0.610	-4.29	-4.29	0.37	-4	0.994	-0.05	-0.05	0.99
-48	0.624	-4.10	-4.10	0.39	-3	0.996	-0.03	-0.03	0.99
-47	0.637	-3.92	-3.92	0.41	-2	0.998	-0.02	-0.02	1.00
-46	0.650	-3.74	-3.74	0.42	-1	0.999	-0.01	-0.01	1.00
					0	1.000	0.00	0.00	1.00



GP-FM Groundplane
FM

0.0 dBd (2.15 dBi)
Vertical polarization

Vertical radiation pattern

Angle	Field	Rel.dB	dBd	PwrMult	Angle	Field	Rel.dB	dBd	PwrMult
0	1.000	0.00	0.00	1.00	45	0.663	-3.57	-3.57	0.44
1	0.999	-0.01	-0.01	1.00	46	0.650	-3.74	-3.74	0.42
2	0.998	-0.02	-0.02	1.00	47	0.637	-3.92	-3.92	0.41
3	0.996	-0.03	-0.03	0.99	48	0.624	-4.10	-4.10	0.39
4	0.994	-0.05	-0.05	0.99	49	0.610	-4.29	-4.29	0.37
5	0.992	-0.07	-0.07	0.98	50	0.597	-4.48	-4.48	0.36
6	0.990	-0.09	-0.09	0.98	51	0.583	-4.68	-4.68	0.34
7	0.986	-0.12	-0.12	0.97	52	0.570	-4.89	-4.89	0.32
8	0.983	-0.15	-0.15	0.97	53	0.555	-5.11	-5.11	0.31
9	0.979	-0.18	-0.18	0.96	54	0.541	-5.33	-5.33	0.29
10	0.976	-0.21	-0.21	0.95	55	0.527	-5.56	-5.56	0.28
11	0.972	-0.25	-0.25	0.94	56	0.513	-5.79	-5.79	0.26
12	0.967	-0.29	-0.29	0.94	57	0.499	-6.04	-6.04	0.25
13	0.962	-0.33	-0.33	0.93	58	0.485	-6.29	-6.29	0.23
14	0.957	-0.38	-0.38	0.92	59	0.470	-6.56	-6.56	0.22
15	0.952	-0.43	-0.43	0.91	60	0.456	-6.83	-6.83	0.21
16	0.946	-0.48	-0.48	0.90	61	0.441	-7.12	-7.12	0.19
17	0.940	-0.54	-0.54	0.88	62	0.426	-7.41	-7.41	0.18
18	0.933	-0.60	-0.60	0.87	63	0.411	-7.71	-7.71	0.17
19	0.927	-0.66	-0.66	0.86	64	0.397	-8.03	-8.03	0.16
20	0.920	-0.72	-0.72	0.85	65	0.382	-8.36	-8.36	0.15
21	0.913	-0.79	-0.79	0.83	66	0.367	-8.71	-8.71	0.13
22	0.906	-0.86	-0.86	0.82	67	0.352	-9.07	-9.07	0.12
23	0.897	-0.94	-0.94	0.81	68	0.337	-9.45	-9.45	0.11
24	0.889	-1.02	-1.02	0.79	69	0.322	-9.85	-9.85	0.10
25	0.881	-1.10	-1.10	0.78	70	0.307	-10.27	-10.27	0.09
26	0.872	-1.19	-1.19	0.76	71	0.291	-10.71	-10.71	0.08
27	0.863	-1.28	-1.28	0.74	72	0.276	-11.17	-11.17	0.08
28	0.854	-1.37	-1.37	0.73	73	0.261	-11.67	-11.67	0.07
29	0.844	-1.47	-1.47	0.71	74	0.246	-12.19	-12.19	0.06
30	0.835	-1.57	-1.57	0.70	75	0.231	-12.75	-12.75	0.05
31	0.825	-1.67	-1.67	0.68	76	0.215	-13.34	-13.34	0.05
32	0.815	-1.78	-1.78	0.66	77	0.200	-13.98	-13.98	0.04
33	0.805	-1.89	-1.89	0.65	78	0.185	-14.67	-14.67	0.03
34	0.794	-2.00	-2.00	0.63	79	0.169	-15.42	-15.42	0.03
35	0.783	-2.12	-2.12	0.61	80	0.154	-16.25	-16.25	0.02
36	0.772	-2.25	-2.25	0.60	81	0.139	-17.16	-17.16	0.02
37	0.760	-2.38	-2.38	0.58	82	0.123	-18.18	-18.18	0.02
38	0.749	-2.51	-2.51	0.56	83	0.108	-19.34	-19.34	0.01
39	0.737	-2.65	-2.65	0.54	84	0.092	-20.68	-20.68	0.01
40	0.725	-2.79	-2.79	0.53	85	0.077	-22.26	-22.26	0.01
41	0.713	-2.93	-2.93	0.51	86	0.062	-24.20	-24.20	0.00
42	0.701	-3.08	-3.08	0.49	87	0.046	-26.70	-26.70	0.00
43	0.689	-3.24	-3.24	0.47	88	0.031	-30.22	-30.22	0.00
44	0.676	-3.40	-3.40	0.46	89	0.015	-36.24	-36.24	0.00
					90	0.010	-40.00	-40.00	0.00

Adjacent Channel Study

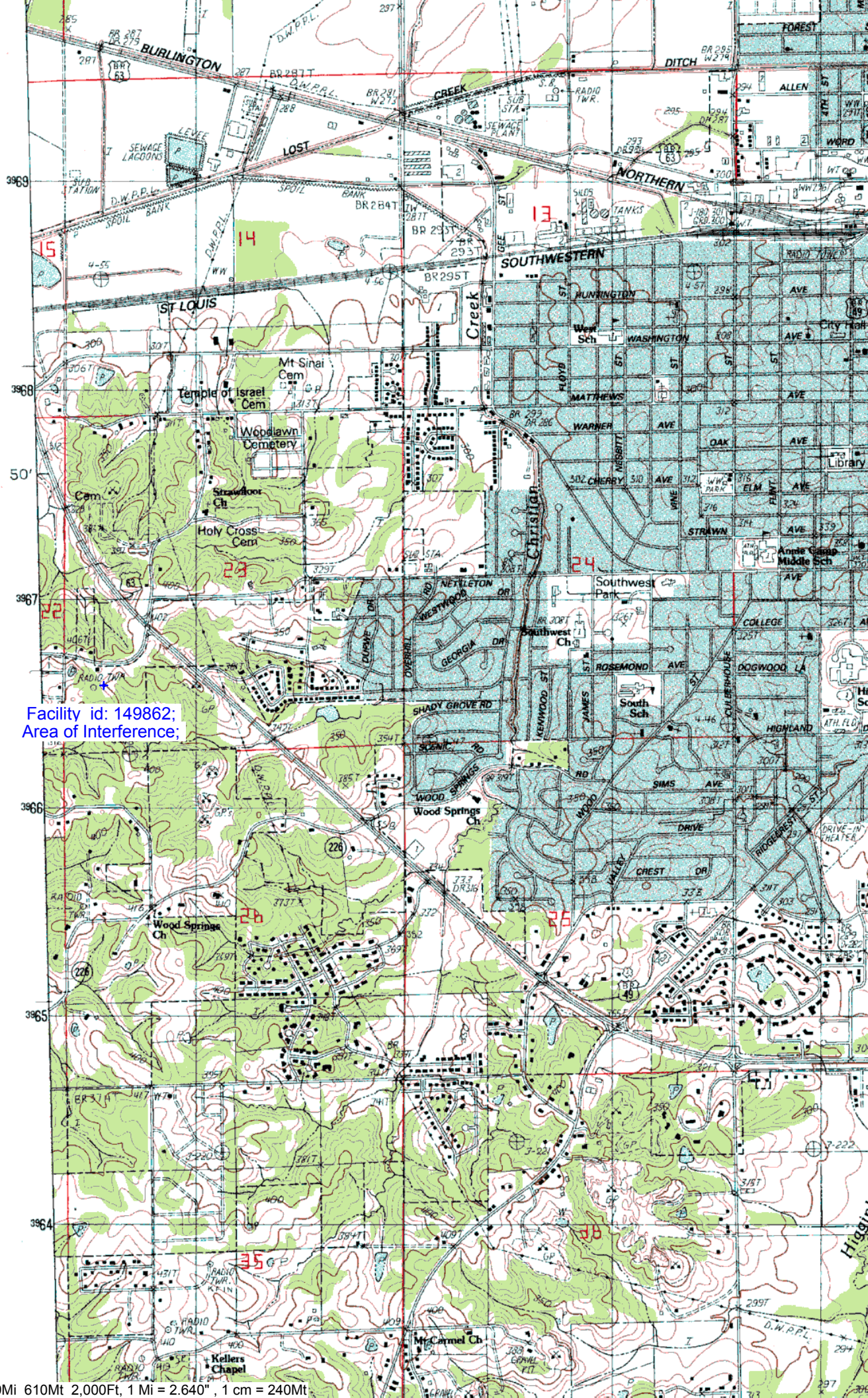
For Station NEW, Facility_id: 149862

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
299096	17690	BLH	6136	KFIN		C1	JONESBORO	AR	LIC	98	266	300	2	2.8	0.8354
432172	59150	BLH	20000128AAK	KDRS-FM	PRESSLY ENTERPRISES, LLC	A	PARAGOULD	AR	LIC	3	230	296	2	26.5	0
270936	52904	BLH	19980714KD	KQDD	PHOENIX BROADCASTING GROUP, INC.	A	OSCEOLA	AR	LIC	1.6	171	297	1	74	0
642713	149858	BNPFT	20030317JEE	NEW	EDGEWATER BROADCASTING, INC.	D	FORREST CITY	AR	APP	0.115	205.4	298	0	77.8	0
631170	139994	BNPFT	20030314BEJ	NEW	EDUCATIONAL MEDIA FOUNDATION	D	FORREST CITY	MS	APP	0.115	211	297	1	82.2	0
650890	138336	BNPFT	20030313BBY	NEW	EAST ARKANSAS BROADCASTERS, INC.	D	FORREST CITY	AR	APP	0.25	215	295	3	85.6	0
628446	138336	BNPFT	20030313BBY	NEW	EAST ARKANSAS BROADCASTERS, INC.	D	FOREST CITY	AR	APP	0.25	215	295	3	85.6	0
265818	5213	BLH	19980413KB	KXHT	FLINN BROADCASTING CORPORATION	A	MARION	AR	LIC	2.75	213	296	2	94.8	0
231460	31452	BLH	19960826KD	KCNY	JOHN AND ELIZABETH CAPPS	C3	BALD KNOB	AR	LIC	19	181	296	2	102.6	0
649641	156361	BNPFT	20030317HBX	NEW	R & L NON-COMM	D	MEMPHIS	TN	APP	0.027	143	300	2	106.5	0
277044	76532	BLH	19981113KA	KFEB	EAGLE BLUFF ENTERPRISES	C3	CAMPBELL	MO	LIC	17.5	199	298	0	109.8	0
1046782	50330	BXLH	20050215AAK	WHBQ-FM	FLINN BROADCASTING CORPORATION	A	GERMANTOWN	TN	LIC	4	201	298	0	116.2	0
603897	50330	BLH	20020529AAU	WHBQ-FM	FLINN BROADCASTING CORPORATION	A	GERMANTOWN	TN	LIC	3.9	218	298	0	116.2	0
633650	141921	BNPFT	20030312BBZ	NEW	COMMUNITY BROADCASTING, INC.	D	CORDOVA	TN	APP	0.25	190	300	2	116.8	0
970749	29623	BLH	20040128AIS	KBMV-FM	MOUNTAIN LAKES BROADCASTING CORP.	C3	BIRCH TREE	MO	LIC	25	425.1	296	2	151	0
999191	39532	BLH	20040618AAF	KOMT	MAC PARTNERS	C0	MOUNTAIN HOME	AR	LIC	100	568	298	0	173.3	0
702134	54947	BLH	20031112AGF	WWYN	RAINBOW MEDIA, INC.	C1	MCKENZIE	TN	LIC	100	401	295	3	177.4	0

Intermediate Frequencies (53 and 54 channels difference):

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
255704	48743	BLH	19971020KD	KOKR	NEWPORT BROADCASTING COMPANY	C2	NEWPORT	AR	LIC	40	271	244	54	72.7	57.7



Facility id: 149862;
Area of Interference;

