

Non-Interference Compliance

Regarding Facility id 148870

Channel 244

Description of Exhibit 13 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 5 include a tabulation of the vertical radiation pattern for the proposed antenna provided by the antenna manufacturer.

Page 6 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 7 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 8 of this exhibit is an aerial photo of the vicinity surrounding the proposed translator's tower site.

Note: The tallest building within the zone of predicted interference is 20ft (6.1m) in height. This proposal provides 20.7m (67.9m) of ground clearance so 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.

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
1258706	BLH20080724ABI	KYAL-FM	63.2	63.2
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				63.2

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 **63.2 dBμ**, this makes the proposed translator's worst-case interfering contour **103.2 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **767.3 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 7 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 **20.7 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.

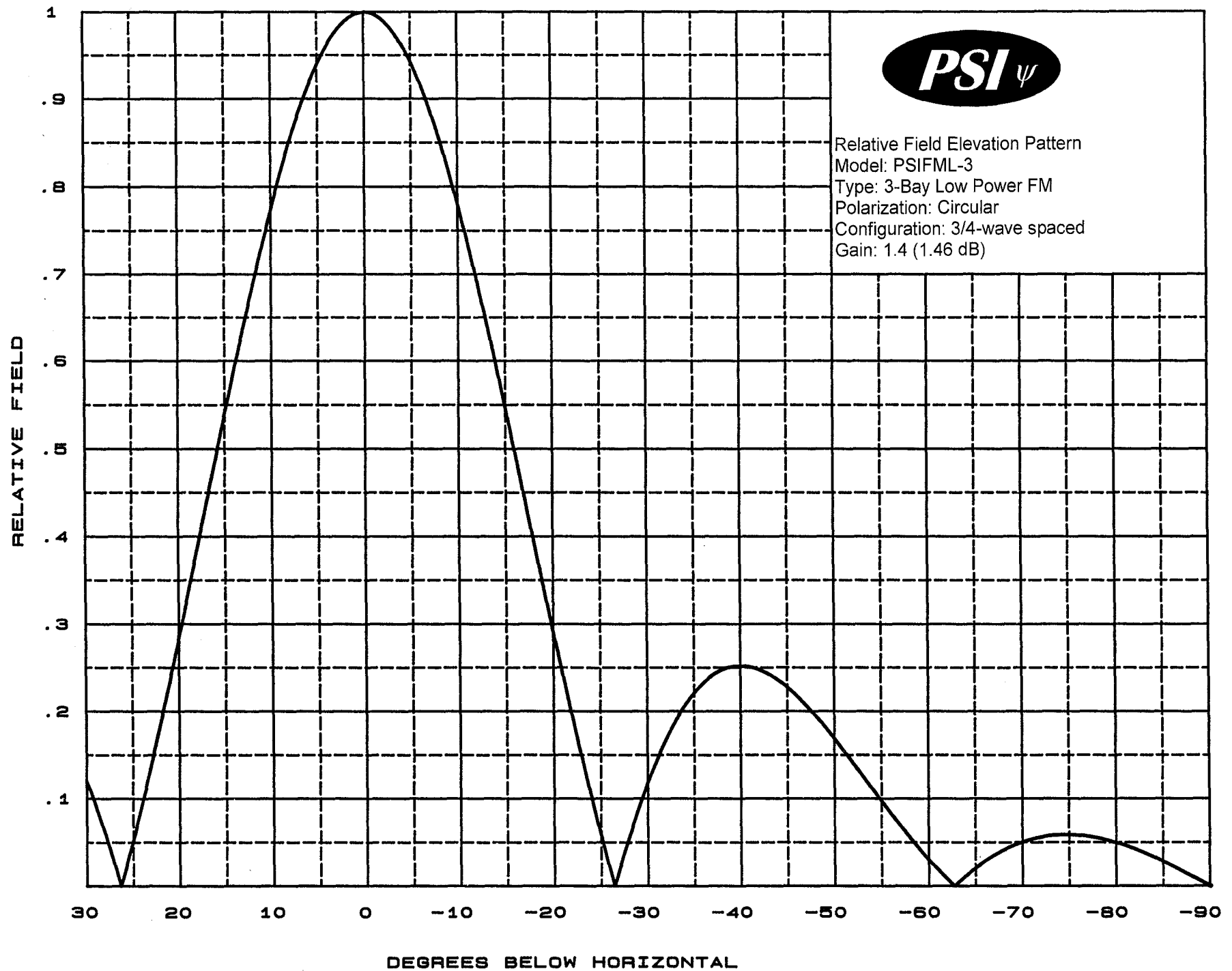
Note: The tallest building within the zone of predicted interference is 20ft (6.1m) in height. This proposal provides 20.7m (67.9m) of ground clearance so a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Antenna Manufacturer:	PSI
Antenna Model:	FML-3(.75)
CORAGL:	145 m
Maximum ERP:	0.25 kW
Interfering Contour:	103.2 dBμ
Max Int. Contour Distance:	767.3 m
Min Ground Clearance:	20.7 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	.941	221.4	722.0	719.3	82.1
10	.777	150.9	596.2	587.1	41.5
15	.543	73.7	416.6	402.5	37.2
20	.287	20.6	220.2	206.9	69.7
25	.055	0.8	42.2	38.2	127.2
30	.120	3.6	92.1	79.7	99.0
35	.222	12.3	170.3	139.5	47.3
40	.252	15.9	193.4	148.1	20.7
45	.227	12.9	174.2	123.2	21.8
50	.168	7.1	128.9	82.9	46.3
55	.096	2.3	73.7	42.3	84.7
60	.030	0.2	23.0	11.5	125.1
65	.021	0.1	16.1	6.8	130.4
70	.050	0.6	38.4	13.1	108.9
75	.059	0.9	45.3	11.7	101.3
80	.050	0.6	38.4	6.7	107.2
85	.028	0.2	21.5	1.9	123.6
90	.001	0.0	0.8	0.0	144.2
Minimum Clearance above TGL:					20.7 m



Relative Field Elevation Pattern
Model: PSIFML-3
Type: 3-Bay Low Power FM
Polarization: Circular
Configuration: 3/4-wave spaced
Gain: 1.4 (1.46 dB)





Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-3 Special

Bay spacing: 3/4 wave

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.168	-15.500	-10.0	0.777	-2.194
-89.0	0.006	-44.795	-49.0	0.181	-14.829	-9.0	0.817	-1.761
-88.0	0.012	-38.775	-48.0	0.194	-14.240	-8.0	0.853	-1.379
-87.0	0.017	-35.329	-47.0	0.206	-13.714	-7.0	0.886	-1.049
-86.0	0.023	-32.869	-46.0	0.217	-13.266	-6.0	0.916	-0.766
-85.0	0.028	-31.047	-45.0	0.227	-12.881	-5.0	0.941	-0.529
-84.0	0.033	-29.622	-44.0	0.235	-12.562	-4.0	0.962	-0.338
-83.0	0.038	-28.467	-43.0	0.242	-12.308	-3.0	0.978	-0.190
-82.0	0.042	-27.510	-42.0	0.248	-12.126	-2.0	0.990	-0.085
-81.0	0.046	-26.705	-41.0	0.251	-12.010	-1.0	0.998	-0.021
-80.0	0.050	-26.073	-40.0	0.252	-11.968	0.0	1.000	0.000
-79.0	0.053	-25.559	-39.0	0.251	-12.004	1.0	0.998	-0.021
-78.0	0.055	-25.169	-38.0	0.248	-12.126	2.0	0.990	-0.085
-77.0	0.057	-24.887	-37.0	0.242	-12.336	3.0	0.978	-0.190
-76.0	0.058	-24.682	-36.0	0.233	-12.657	4.0	0.962	-0.338
-75.0	0.059	-24.614	-35.0	0.222	-13.092	5.0	0.941	-0.529
-74.0	0.059	-24.637	-34.0	0.207	-13.676	6.0	0.916	-0.766
-73.0	0.058	-24.772	-33.0	0.190	-14.432	7.0	0.886	-1.049
-72.0	0.056	-25.027	-32.0	0.170	-15.414	8.0	0.853	-1.379
-71.0	0.054	-25.411	-31.0	0.146	-16.700	9.0	0.817	-1.759
-70.0	0.050	-25.968	-30.0	0.120	-18.427	10.0	0.777	-2.194
-69.0	0.046	-26.733	-29.0	0.090	-20.871	11.0	0.734	-2.683
-68.0	0.041	-27.731	-28.0	0.058	-24.704	12.0	0.689	-3.233
-67.0	0.035	-29.081	-27.0	0.023	-32.754	13.0	0.642	-3.848
-66.0	0.028	-30.954	-26.0	0.015	-36.745	14.0	0.593	-4.534
-65.0	0.021	-33.656	-25.0	0.055	-25.217	15.0	0.543	-5.301
-64.0	0.012	-38.221	-24.0	0.098	-20.213	16.0	0.492	-6.156
-63.0	0.003	-50.816	-23.0	0.142	-16.928	17.0	0.441	-7.116
-62.0	0.007	-42.949	-22.0	0.189	-14.460	18.0	0.389	-8.196
-61.0	0.018	-34.880	-21.0	0.238	-12.484	19.0	0.338	-9.425
-60.0	0.030	-30.546	-20.0	0.287	-10.839	20.0	0.287	-10.834
-59.0	0.042	-27.541	-19.0	0.338	-9.425	21.0	0.238	-12.484
-58.0	0.055	-25.217	-18.0	0.389	-8.199	22.0	0.189	-14.460
-57.0	0.068	-23.307	-17.0	0.441	-7.116	23.0	0.143	-16.919
-56.0	0.082	-21.711	-16.0	0.492	-6.159	24.0	0.098	-20.200
-55.0	0.096	-20.335	-15.0	0.543	-5.301	25.0	0.055	-25.193
-54.0	0.111	-19.124	-14.0	0.593	-4.536	26.0	0.015	-36.745
-53.0	0.125	-18.051	-13.0	0.642	-3.850	27.0	0.023	-32.754
-52.0	0.140	-17.106	-12.0	0.689	-3.234	28.0	0.058	-24.704
-51.0	0.154	-16.253	-11.0	0.734	-2.683	29.0	0.090	-20.871
						30.0	0.120	-18.438

file: FML 3-bay elevation tabulation

revision: A

Date: 1/28/08

Adjacent Channel Study **For Station K261DZ, Facility_id: 148870**

Co-channel through third adjacent:

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
1258706	35141	BLH-20080724ABI	KYAL-FM	KMMY, INC.	C	MUSKOGEE	OK	LIC	100	794	246	2	84.9	1.4918
1077308	133198	BLL-20050729DUL	KTPV-LP	FOUNDATION FOR THE PRESER	L1	PRAIRIE GROVE	AR	LIC	0	433	245	1	67.2	0
1567922	22394	BPFT-20130822ADL	K240AS	FRED H. BAKER D/B/A MEGAMEC	D	FAYETTEVILLE	AR	CP	0.062	576	241	3	76.2	0
1568677	156847	BLFT-20131118AOL	K242CK	K95.5, INC.	D	TAHLEQUAH	OK	LIC	0.25	325	242	2	76.4	0
204932	71487	BLH-19941216KA	KTTG	PEARSON BROADCASTING OF M	C1	MENA	AR	LIC	47	753	242	2	86.2	0
1605906	51098	BLH-20131126BUF	KCYT	HOG RADIO, INC.	C3	FAYETTEVILLE	AR	LIC	4.1	551.1	244	0	90.9	0
1639273	142340	BLFT-20140528AHJ	K246BY	BOBBY CALDWELL	D	RUSSELLVILLE	AR	LIC	0.25	551	246	2	107.6	0
993807	134997	BLL-20040514AEM	KHBR-LP	HEAVEN BOUND, INC.	L1	DECATUR	AR	LIC	0	413	244	0	109.2	0
1069079	134998	BLL-20050713ACQ	KDUA-LP	ST. ANTHONY OF PADUA EDUC	L1	ROGERS	AR	LIC	0	432.59	243	1	111.8	0
1720157	139219	BMPFT-20160129AD	K287BH	COMMUNITY BROADCASTING, IN	D	MCALESTER	OK	APP	0.25	345	244	0	122.6	0
1545998	143566	BNPFT-20130325AN	K242CJ	AMERICAN FAMILY ASSOCIATION	D	MCALESTER	OK	CP	0.25	285	242	2	128.4	0
128400	17034	BLH-19890508KD	KITO-FM	KXOJ, INC.	C2	VINITA	OK	LIC	50	376	241	3	146.6	0
156235	26242	BLH-19910116KA	KCWD	HARRISON RADIO STATIONS, INC	C2	HARRISON	AR	LIC	8	710	241	3	151.7	0
1262884	65764	BLH-20080826AAG	KRAV-FM	COX RADIO, INC.	C	TULSA	OK	LIC	100	687	243	1	177.1	0
644278	151203	BNPFT-20030317CF	NEW	RADIO ASSIST MINISTRY, INC.	D	SHOW LOW	AZ	APP	0.015	2385.2	247	3	1420.	0
1198753	150097	BLFT-20070806AAT	K246BI	RADIO ASSIST MINISTRY, INC.	D	WINSLOW	AZ	LIC	0.025	1483	246	2	1476.	0
1399096	11894	BLH-20100928ADE	KIKO-FM	1TV.COM, INC.	C2	CLAYPOOL	AZ	LIC	0.67	2352	247	3	1521.	0
1419081	37577	BSTA-20110228ADC	KRDE	LINDA C. CORSO	C1	SAN CARLOS	AZ	APP	2.1	2378	247	3	1521.	0

Intermediate Frequencies (53 and 54 channels difference):

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
1319497	37086	BLH-20090630ACU	KOMS	CUMULUS LICENSING LLC	C	POTEAU	OK	LIC	100	852.8	297	53	43.8	14.8

27' 30" 368 369 7154 IV NW (FORT SMITH) R 27 E R 32 W FAYETTEVILLE 58 MI. VAN BUREN 5 MI. 371 25' 3 070 000 FEET (OKLA.

