

[Exhibit 13]

## **Non-Interference Compliance**

Regarding Facility id 149424

Channel 263

### **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 dB $\mu$  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.

Since the proposed translator is within 320 km of the Mexican border, 47 C.F.R. § 74.1235(d) has been taken into account and this applicant certifies that in the direction of the Mexican border, the proposed translator's 60 dB $\mu$  F(50,50) contour does not lie within 116.3 km of the Mexican border. This application is therefore in full compliance with 47 C.F.R. § 74.1235(d)(2), which states that for translators between 125 and 320 km from the border, "in no event shall the location of the 60 dB $\mu$  contour lie within 116.3 km of the Mexican border," and hence complies with 47 C.F.R. § 74.1204(h).

**Note: The buildings within the zone of predicted interference are 20m (6.1m) or less. This proposal provides 27.4m (89.9ft) 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 dB $\mu$  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.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
1256623	BLH20080714ACM	KEJL	69.3	69.3
	Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour			<b>69.3</b>

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 **69.3 dB $\mu$** , this makes the proposed translator's worst-case interfering contour **109.3 dB $\mu$** . By the free-space equation, this contour is calculated to extend a maximum of **380.2 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 **27.4 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.

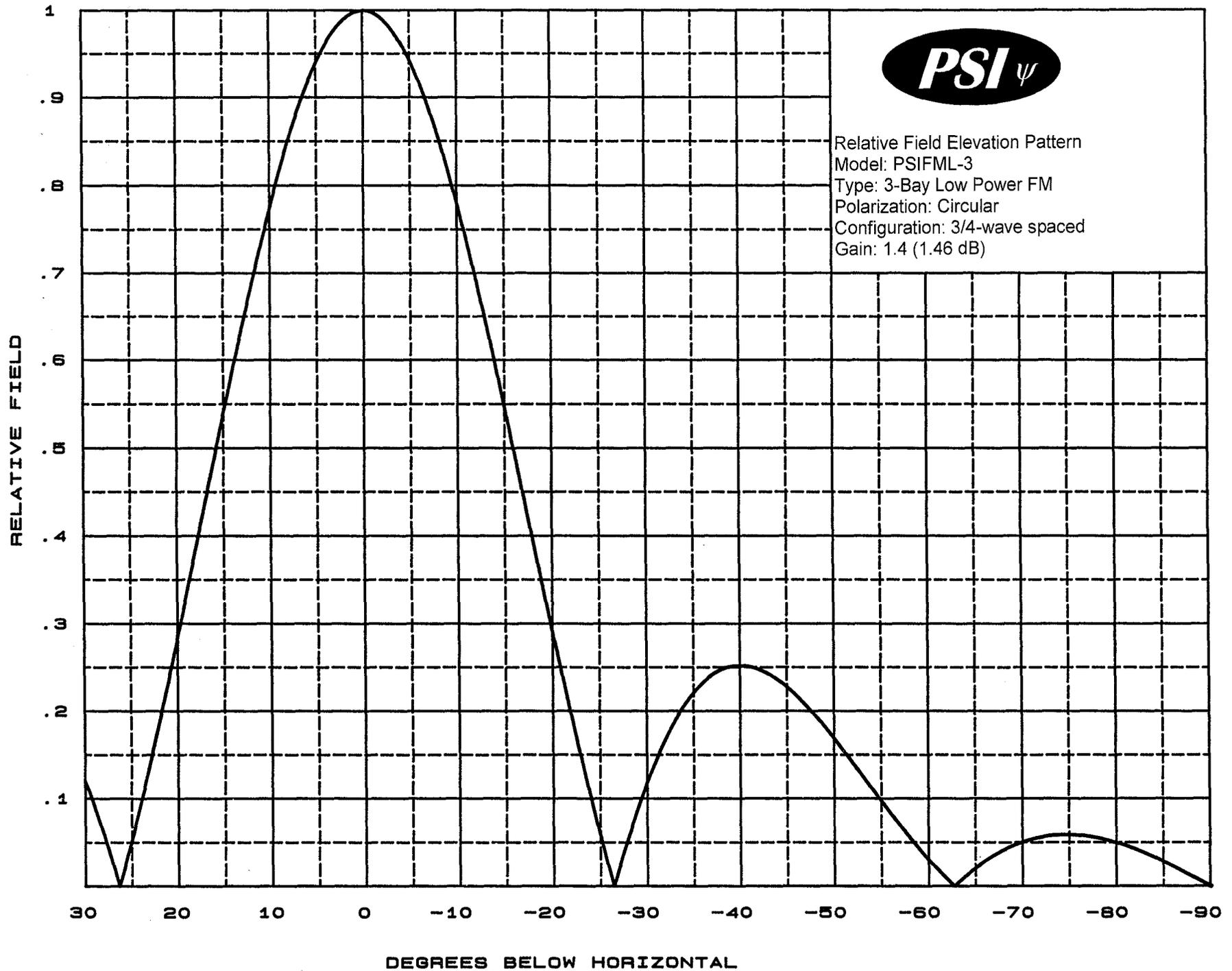
**Note: The buildings within the zone of predicted interference are 20m (6.1m) or less. This proposal provides 27.4m (89.9ft) of ground clearance so a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.**

<b>Antenna Manufacturer:</b>	<b>PSI</b>
<b>Antenna Model:</b>	<b>FML-3(.75)</b>
<b>CORAGL:</b>	<b>89 m</b>
<b>Maximum ERP:</b>	<b>0.25 kW</b>
<b>Interfering Contour:</b>	<b>109.3 dB<math>\mu</math></b>
<b>Max Int. Contour Distance:</b>	<b>380.2 m</b>
<b>Min Ground Clearance:</b>	<b>27.4 m</b>

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	357.7	356.4	57.8
10	.777	150.9	295.4	290.9	37.7
15	.543	73.7	206.4	199.4	35.6
20	.287	20.6	109.1	102.5	51.7
25	.055	0.8	20.9	18.9	80.2
30	.120	3.6	45.6	39.5	66.2
35	.222	12.3	84.4	69.1	40.6
40	.252	15.9	95.8	73.4	27.4
45	.227	12.9	86.3	61.0	28.0
50	.168	7.1	63.9	41.1	40.1
55	.096	2.3	36.5	20.9	59.1
60	.030	0.2	11.4	5.7	79.1
65	.021	0.1	8.0	3.4	81.8
70	.050	0.6	19.0	6.5	71.1
75	.059	0.9	22.4	5.8	67.3
80	.050	0.6	19.0	3.3	70.3
85	.028	0.2	10.6	0.9	78.4
90	.001	0.0	0.4	0.0	88.6
Minimum Clearance above TGL:					<b>27.4 m</b>



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 K263AZ, Facility\_id: 149424**

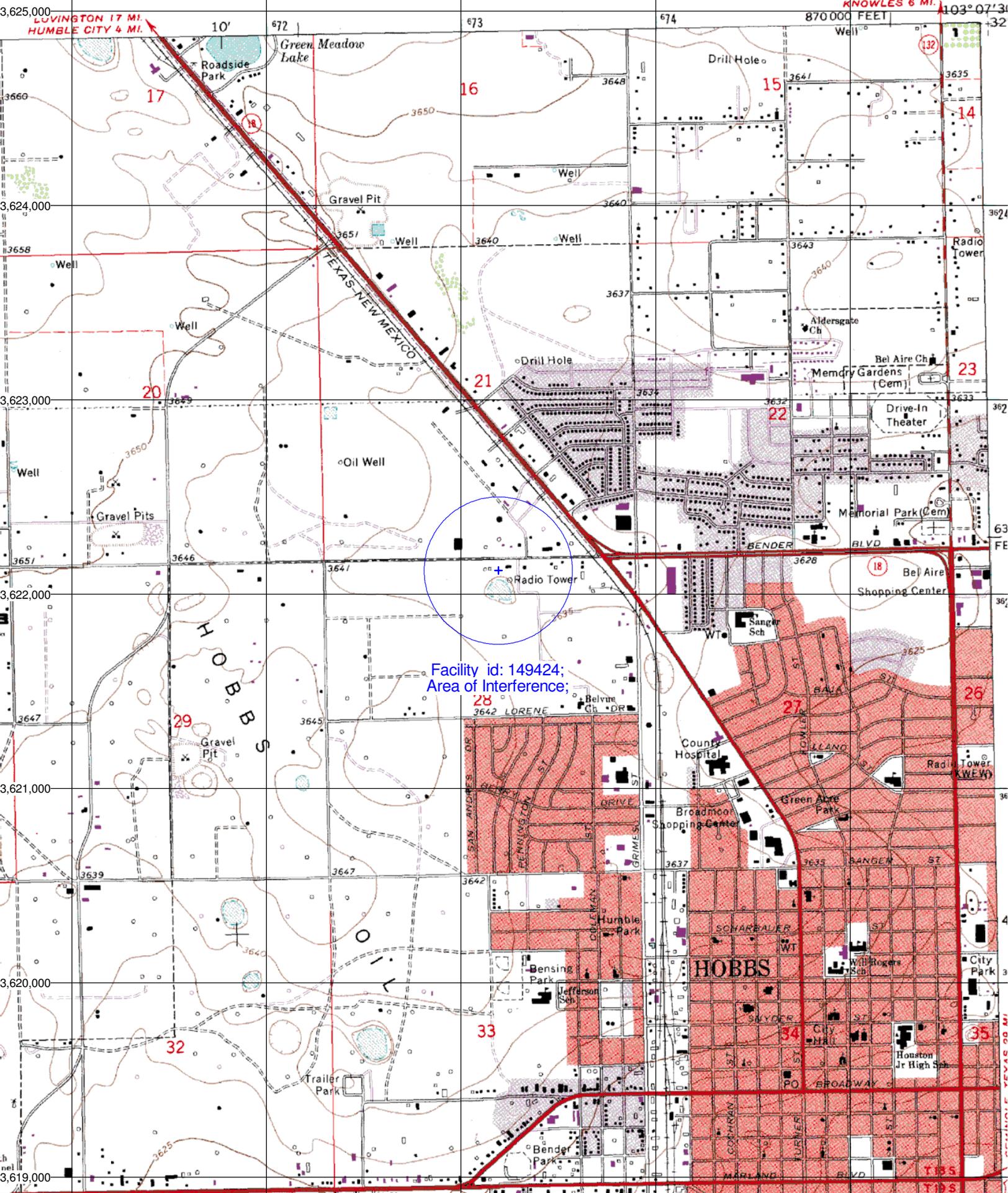
**Co-channel through third adjacent:**

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1256623	40206	BLH	20080714ACM	KEJL	FIVESTAR ENTERPRISES L.C.	C2	EUNICE	NM	LIC	50	1173	265	2	28.6	1.4918
1130164	48433	BMLH	20060531AML	KBAT	CUMULUS LICENSING LLC	C1	MONAHANS	TX	LIC	100	1081	260	3	122.4	0
279149	26519	BLH	19981218KB	KONE	WILKS LICENSE COMPANY-LUBBOCK LLC	C1	LUBBOCK	TX	LIC	100	1248	266	3	143	0
279281	86	BLH	19981223KA	KMMX	WILKS LICENSE COMPANY-LUBBOCK LLC	C1	TAHOKA	TX	LIC	100	1248	262	1	143	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
1215201	176810	BNPED	20071022ANQ	NEW	HISPANIC OUTREACH MINISTRY, INC.	A	HOBBS	NM	APP	1	1150	210	53	4.9	-5.1
1212085	174825	BNPED	20071018AYU	NEW	IGLESIA SHEKIRA	A	HOBBS	NM	APP	1	1150	209	54	4.9	-5.1
1203554	172426	BNPED	20071022AYY	NEW	HOBBS SEVENTH-DAY ADVENTIST CHURCH	A	HOBBS	NM	APP	2	1171	210	53	5.7	-4.3
1199980	171818	BNPED	20071019ACK	NEW	LA PROMESA FOUNDATION	C3	SEMINOLE	TX	APP	35	1091	209	54	39.2	27.2
1215381	176959	BNPED	20071022BQI	NEW	GRACE COMMUNITY CHURCH OF AMARILLO	C2	DENVER CITY	TX	APP	25	1210	209	54	46	31
1098083	165679	BNPED	20071019ABQ	NEW	CHRISTIAN MINISTRIES OF THE VALLEY, INC.	C2	BROWNFIELD	TX	APP	50	1119	209	54	90.5	75.5
1213973	176092	BNPED	20071018APK	NEW	ROSWELL HUMANE SOCIETY	A	CAPROCK	NM	CP	1.7	1414	210	53	92.5	82.5

HOBBS WEST QUADRANGLE  
NEW MEXICO—LEA CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)



Facility id: 149424;  
Area of Interference;

