[Exhibit 13]

Non-Interference Compliance

Regarding Facility id 155720 Channel 238

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 buildings within the zone of predicted interference are less than 20ft (6.1m) tall. This proposal provides 7.7m (25.3ft) 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
1118922	BMLH20060314AED	KQRX	74.8	74.8
658616	BLH20030425AAV	KMRK-FM	80.9	80.6
		Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour		**74.8**

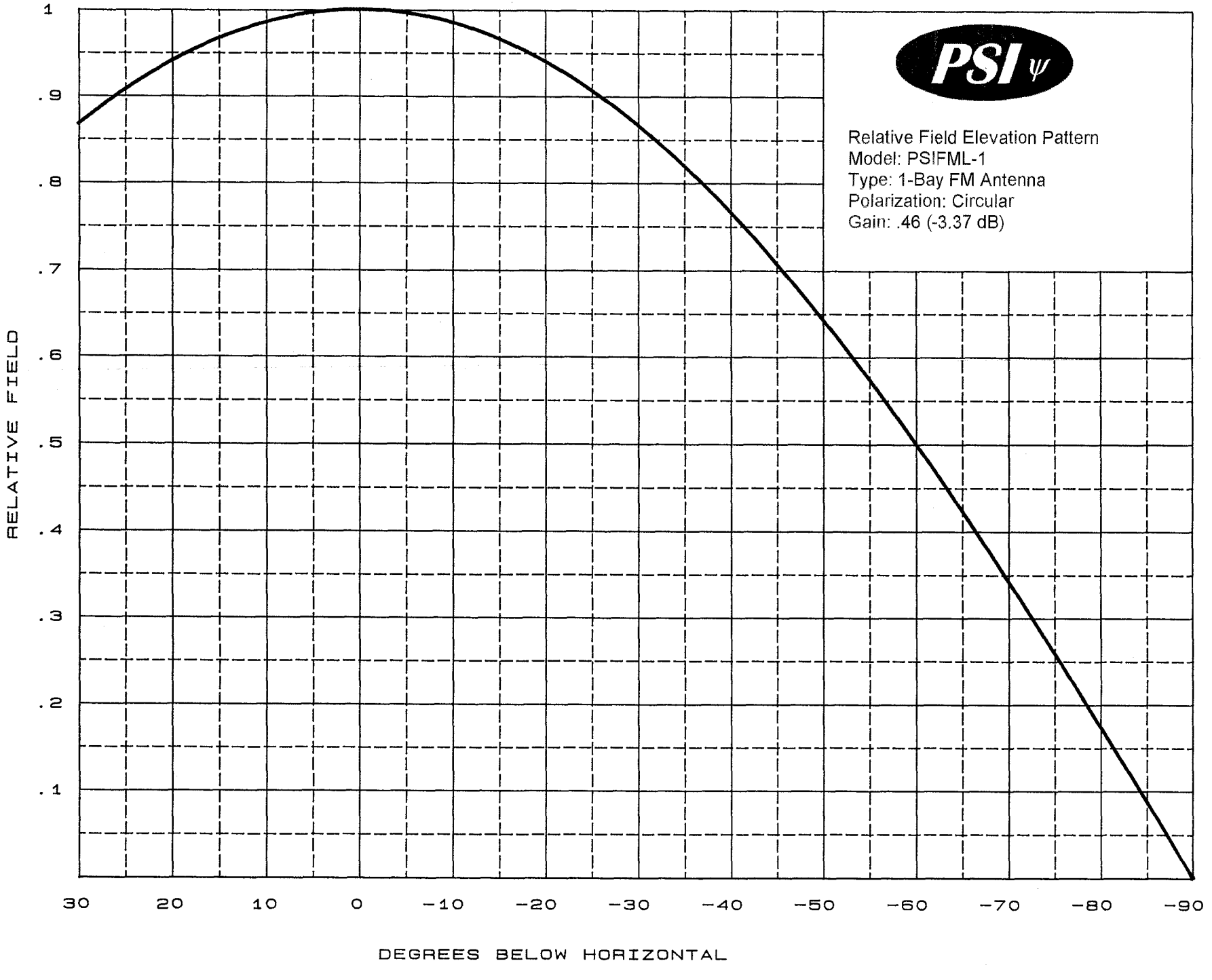
FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **74.8 dBµ**, this makes the proposed translator's worst-case interfering contour **114.8 dBµ.** By the free-space equation, this contour is calculated to extend a maximum of **201.8 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 **7.7 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 buildings within the zone of predicted interference are less than 20ft (6.1m) tall. This proposal provides 7.7m (25.3ft) 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-2-DA**
CORAGL:	**109 m**
Maximum ERP:	**0.25 kW**
Interfering Contour:	**114.8 dBµ**
Max Int. Contour Distance:	**201.8 m**
Min Ground Clearance:	**7.7 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	1.000	250.0	201.8	201.1	91.4
10	.990	245.0	199.8	196.8	74.3
15	.970	235.2	195.8	189.1	58.3
20	.940	220.9	189.7	178.3	44.1
25	.910	207.0	183.7	166.5	31.4
30	.870	189.2	175.6	152.1	21.2
35	.820	168.1	165.5	135.6	14.1
40	.770	148.2	155.4	119.0	9.1
45	.710	126.0	143.3	101.3	7.7
50	.640	102.4	129.2	83.0	10.1
55	.570	81.2	115.0	66.0	14.8
60	.500	62.5	100.9	50.5	21.6
65	.420	44.1	84.8	35.8	32.2
70	.340	28.9	68.6	23.5	44.5
75	.260	16.9	52.5	13.6	58.3
80	.170	7.2	34.3	6.0	75.2
85	.090	2.0	18.2	1.6	90.9
90	.000	0.0	0.0	0.0	109.0
				Minimum Clearance above TGL:	**7.7 m**


PSI ψ
Relative Field Elevation Pattern
Model: PSIFML-1
Type: 1-Bay FM Antenna
Polarization: Circular
Gain: .46 (-3.37 dB)
RELATIVE FIELD
1
.9
.8
.7
.6
.5
.4
.3
.2
.1
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
DEGREES BELOW HORIZONTAL

Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-1

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.00	0.001	-60.000	-50.00	0.643	-3.839	-10.00	0.985	-0.134
-89.00	0.017	-35.177	-49.00	0.656	-3.663	-9.00	0.988	-0.109
-88.00	0.035	-29.156	-48.00	0.669	-3.490	-8.00	0.990	-0.086
-87.00	0.052	-25.634	-47.00	0.682	-3.325	-7.00	0.992	-0.066
-86.00	0.070	-23.136	-46.00	0.695	-3.166	-6.00	0.994	-0.049
-85.00	0.087	-21.198	-45.00	0.707	-3.012	-5.00	0.996	-0.034
-84.00	0.104	-19.626	-44.00	0.719	-2.862	-4.00	0.997	-0.022
-83.00	0.122	-18.286	-43.00	0.731	-2.719	-3.00	0.998	-0.013
-82.00	0.139	-17.134	-42.00	0.743	-2.580	-2.00	0.999	-0.007
-81.00	0.156	-16.117	-41.00	0.755	-2.445	-1.00	1.000	-0.003
-80.00	0.174	-15.207	-40.00	0.766	-2.316	0.00	1.000	0.000
-79.00	0.191	-14.390	-39.00	0.777	-2.190	1.00	1.000	-0.003
-78.00	0.208	-13.644	-38.00	0.788	-2.071	2.00	0.999	-0.007
-77.00	0.225	-12.962	-37.00	0.798	-1.955	3.00	0.998	-0.013
-76.00	0.242	-12.330	-36.00	0.809	-1.842	4.00	0.997	-0.022
-75.00	0.259	-11.741	-35.00	0.819	-1.733	5.00	0.996	-0.034
-74.00	0.276	-11.194	-34.00	0.829	-1.630	6.00	0.994	-0.049
-73.00	0.292	-10.684	-33.00	0.839	-1.529	7.00	0.992	-0.066
-72.00	0.309	-10.203	-32.00	0.848	-1.432	8.00	0.990	-0.086
-71.00	0.325	-9.750	-31.00	0.857	-1.339	9.00	0.988	-0.109
-70.00	0.342	-9.320	-30.00	0.866	-1.251	10.00	0.985	-0.134
-69.00	0.358	-8.914	-29.00	0.875	-1.164	11.00	0.982	-0.162
-68.00	0.375	-8.530	-28.00	0.883	-1.082	12.00	0.978	-0.193
-67.00	0.391	-8.165	-27.00	0.891	-1.003	13.00	0.974	-0.227
-66.00	0.407	-7.815	-26.00	0.899	-0.928	14.00	0.970	-0.263
-65.00	0.423	-7.482	-25.00	0.906	-0.855	15.00	0.966	-0.301
-64.00	0.438	-7.164	-24.00	0.913	-0.786	16.00	0.961	-0.344
-63.00	0.454	-6.860	-23.00	0.920	-0.720	17.00	0.956	-0.389
-62.00	0.469	-6.569	-22.00	0.927	-0.657	18.00	0.951	-0.436
-61.00	0.485	-6.291	-21.00	0.933	-0.598	19.00	0.945	-0.487
-60.00	0.500	-6.023	-20.00	0.940	-0.542	20.00	0.940	-0.540
-59.00	0.515	-5.764	-19.00	0.945	-0.487	21.00	0.933	-0.598
-58.00	0.530	-5.517	-18.00	0.951	-0.437	22.00	0.927	-0.657
-57.00	0.545	-5.279	-17.00	0.956	-0.389	23.00	0.920	-0.720
-56.00	0.559	-5.050	-16.00	0.961	-0.344	24.00	0.913	-0.786
-55.00	0.573	-4.830	-15.00	0.966	-0.301	25.00	0.906	-0.855
-54.00	0.588	-4.616	-14.00	0.970	-0.263	26.00	0.899	-0.927
-53.00	0.602	-4.413	-13.00	0.974	-0.227	27.00	0.891	-1.003
-52.00	0.616	-4.214	-12.00	0.978	-0.193	28.00	0.883	-1.082
-51.00	0.629	-4.024	-11.00	0.982	-0.162	29.00	0.875	-1.164
						30.00	0.866	-1.251

file: FML 1-bay elevation tabulation

revision: A

Date: 1/28/08

Adjacent Channel Study
For Station K238AZ, Facility_id: 155720

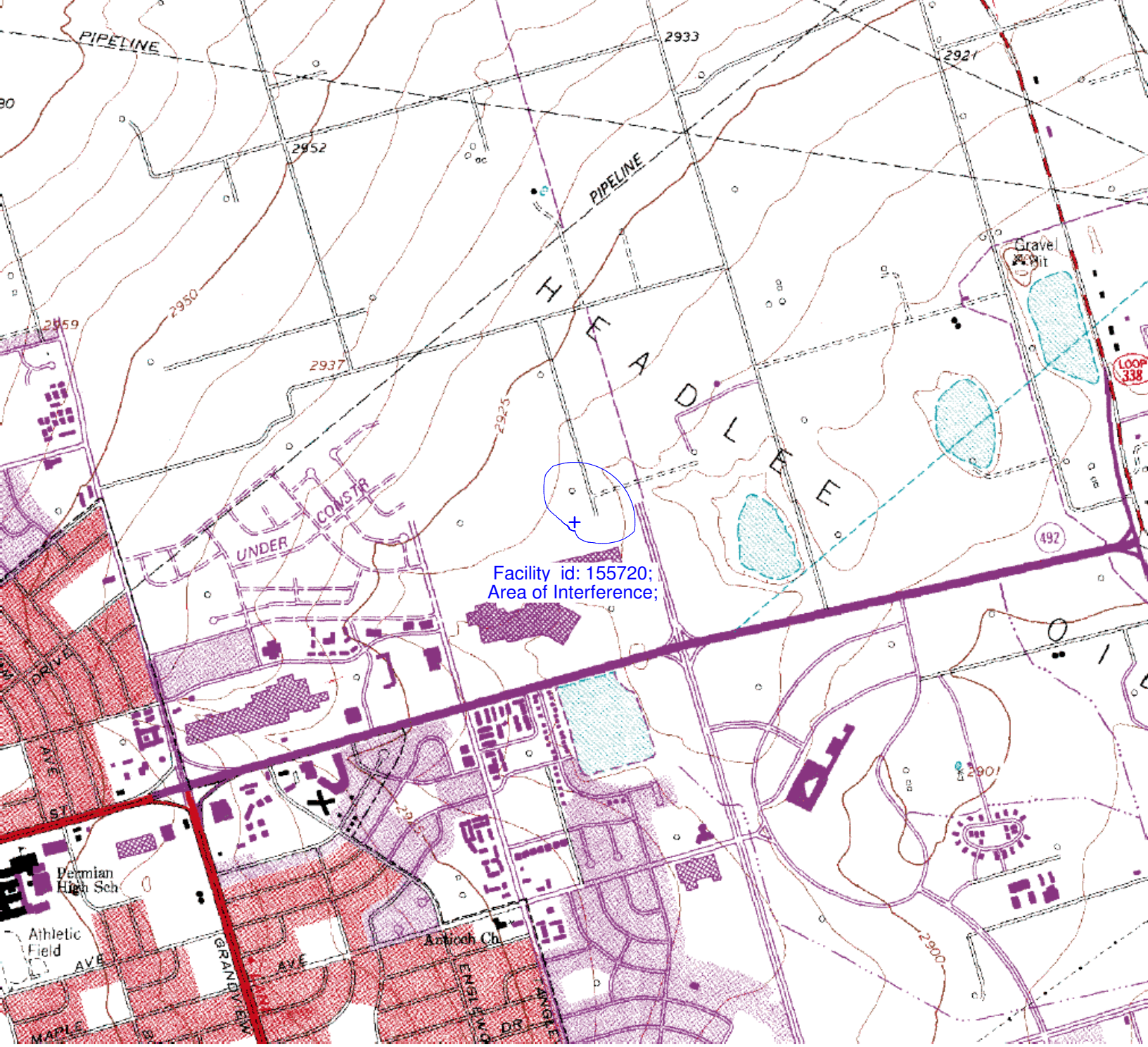
Co-channel through third adjacent:

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Chan	Adj	Dist	Overlap
1118922	67026	BMLH-20060314AED	KQRX	BRAZOS COMMUNICATIONS WEST, LLC	C3	MIDLAND	TX	LIC	10.5	1042	236	2	17.7	0.727
658616	41856	BLH-20030425AAV	KMRK-FM	ICA RADIO, LTD.	C1	ODESSA	TX	LIC	27.5	1175	241	3	21.6	0.727
275857	83864	BLH-19981019KC	KPBM	PAULINO BERNAL	C3	MCCAMEY	TX	LIC	3	1032	237	1	76.5	0
532921	33685	BLH-20001113AAN	KBST-FM	RHATTIGAN BROADCASTING (TEXAS), LP	C2	BIG SPRING	TX	LIC	33	918	239	1	91.9	0
1058963	2870	BLH-20050502ABT	KPER	NOALMARK BROADCASTING CORPORATION	C3	HOBBS	NM	LIC	25	1207	239	1	119.6	0
64784	34854	BMLH-19831221AF	KBIM-FM	NOALMARK BROADCASTING CORPORATION	C	ROSWELL	NM	LIC	100	1858	235	3	189.6	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
90621	57520	BLH-19860729KB	KERB-FM	LA RADIO CRISTIANA NETWORK, INC.	A	KERMIT	TX	LIC	3	952	292	54	75.7	65.7
77308	23019	BLH-19850401KY	KSEM	GAINES COUNTY BROADCASTING, LTD.	A	SEMINOLE	TX	LIC	3	1056	292	54	93.5	83.5

Prepared by Gene Wisniewski
June 6, 2013



'Odessa NE; TX'; Scale: 1" = 0.283Mi 455Mt 1,493Ft, 1 Mi = 3.537" , 1 cm = 179Mt


80 yds
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