

Non-Interference Compliance

Regarding Facility id 153900

Channel 282

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.

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 dBμ 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 dBμ contour lie within 116.3 km of the Mexican border," and hence complies with 47 C.F.R. § 74.1204(h).

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.

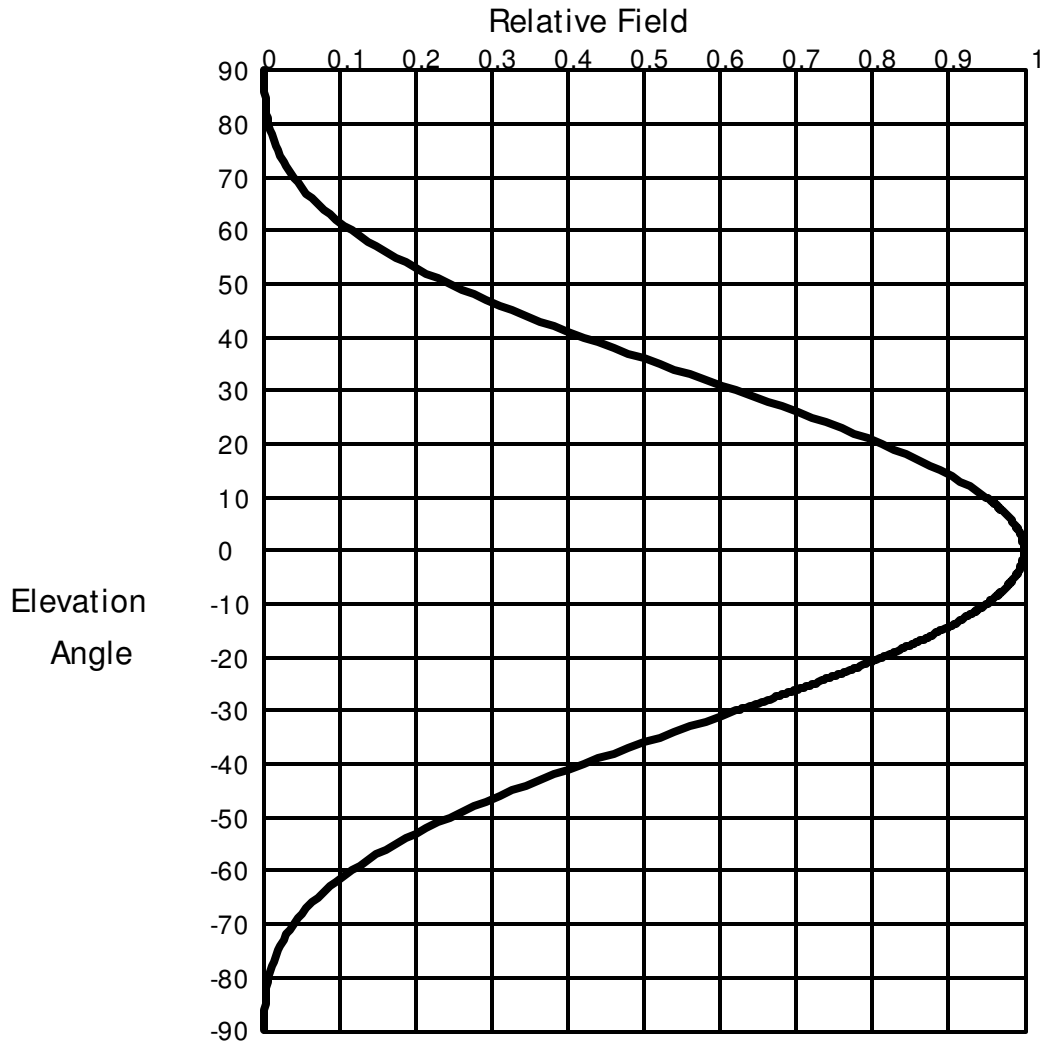
Application_id	File Number	Callsign	Contour at Tower	Min. Contour
258615	BLH19971202KC	KZAM	75.2	74.3
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				74.3

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 **74.3 dBμ**, this makes the proposed translator's worst-case interfering contour **114.3 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **213.8 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 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 **9.5 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:	SWR
Antenna Model:	2FM1-0.5
CORAGL:	76 m
Maximum ERP:	0.25 kW
Interfering Contour:	114.3 dBμ
Max Int. Contour Distance:	213.8 m
Min Ground Clearance:	9.5 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	.987	243.5	211.0	210.2	57.6
10	.950	225.6	203.1	200.0	40.7
15	.890	198.0	190.3	183.8	26.8
20	.812	164.8	173.6	163.1	16.6
25	.721	130.0	154.1	139.7	10.9
30	.622	96.7	133.0	115.2	9.5
35	.520	67.6	111.2	91.1	12.2
40	.420	44.1	89.8	68.8	18.3
45	.327	26.7	69.9	49.4	26.6
50	.244	14.9	52.2	33.5	36.0
55	.173	7.5	37.0	21.2	45.7
60	.115	3.3	24.6	12.3	54.7
65	.070	1.2	15.0	6.3	62.4
70	.039	0.4	8.3	2.9	68.2
75	.018	0.1	3.8	1.0	72.3
80	.006	0.0	1.3	0.2	74.7
85	.001	0.0	0.2	0.0	75.8
90	.000	0.0	0.0	0.0	76.0
Minimum Clearance above TGL:					9.5 m



Elevation Pattern

Scale: Linear

Units: Field, Relative

Systems With Reliability Inc.

CLIENT: *General*

Date: 11/10/03

ANTENNA TYPE: FM1/2 HWS

FREQUENCY: 98.1

PATTERN POL.: Circular

DIRECTIVITY(Peak): 1.39/ 1.43 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 1.39/ 1.43 dBd

Null Fill(s)(%) : 0, 0, 0

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
3.2	.995 (-0.046)	-4.4	.99 (-0.086)	-12.0	.929 (-0.644)
3.0	.995 (-0.04)	-4.6	.989 (-0.094)	-12.2	.926 (-0.666)
2.8	.996 (-0.035)	-4.8	.988 (-0.103)	-12.4	.924 (-0.688)
2.6	.997 (-0.03)	-5.0	.987 (-0.111)	-12.6	.921 (-0.711)
2.4	.997 (-0.026)	-5.2	.986 (-0.121)	-12.8	.919 (-0.733)
2.2	.998 (-0.022)	-5.4	.985 (-0.13)	-13.0	.917 (-0.757)
2.0	.998 (-0.018)	-5.6	.984 (-0.14)	-13.2	.914 (-0.78)
1.8	.998 (-0.014)	-5.8	.983 (-0.15)	-13.4	.912 (-0.804)
1.6	.999 (-0.011)	-6.0	.982 (-0.161)	-13.6	.909 (-0.828)
1.4	.999 (-0.009)	-6.2	.98 (-0.171)	-13.8	.906 (-0.853)
1.2	.999 (-0.006)	-6.4	.979 (-0.183)	-14.0	.904 (-0.878)
1.0	.999 (-0.004)	-6.6	.978 (-0.194)	-14.2	.901 (-0.904)
.8	1.00 (-0.003)	-6.8	.977 (-0.206)	-14.4	.899 (-0.929)
.6	1.00 (-0.002)	-7.0	.975 (-0.219)	-14.6	.896 (-0.956)
.4	1.00 (-0.001)	-7.2	.974 (-0.231)	-14.8	.893 (-0.982)
.2	1.00 (0)	-7.4	.972 (-0.244)	-15.0	.89 (-1.009)
.0	1.00 (0)	-7.6	.971 (-0.258)	-15.2	.888 (-1.036)
-.2	1.00 (0)	-7.8	.969 (-0.272)	-15.4	.885 (-1.064)
-.4	1.00 (-0.001)	-8.0	.968 (-0.286)	-15.6	.882 (-1.092)
-.6	1.00 (-0.002)	-8.2	.966 (-0.3)	-15.8	.879 (-1.12)
-.8	1.00 (-0.003)	-8.4	.964 (-0.315)	-16.0	.876 (-1.149)
-1.0	.999 (-0.004)	-8.6	.963 (-0.33)	-16.2	.873 (-1.178)
-1.2	.999 (-0.006)	-8.8	.961 (-0.346)	-16.4	.87 (-1.208)
-1.4	.999 (-0.009)	-9.0	.959 (-0.362)	-16.6	.867 (-1.238)
-1.6	.999 (-0.011)	-9.2	.957 (-0.378)	-16.8	.864 (-1.268)
-1.8	.998 (-0.014)	-9.4	.956 (-0.395)	-17.0	.861 (-1.299)
-2.0	.998 (-0.018)	-9.6	.954 (-0.412)	-17.2	.858 (-1.33)
-2.2	.998 (-0.022)	-9.8	.952 (-0.429)	-17.4	.855 (-1.361)
-2.4	.997 (-0.026)	-10.0	.95 (-0.447)	-17.6	.852 (-1.393)
-2.6	.997 (-0.03)	-10.2	.948 (-0.465)	-17.8	.849 (-1.425)
-2.8	.996 (-0.035)	-10.4	.946 (-0.483)	-18.0	.846 (-1.457)
-3.0	.995 (-0.04)	-10.6	.944 (-0.502)	-18.2	.842 (-1.49)
-3.2	.995 (-0.046)	-10.8	.942 (-0.521)	-18.4	.839 (-1.524)
-3.4	.994 (-0.052)	-11.0	.94 (-0.541)	-18.6	.836 (-1.557)
-3.6	.993 (-0.058)	-11.2	.937 (-0.561)	-18.8	.833 (-1.591)
-3.8	.993 (-0.064)	-11.4	.935 (-0.581)	-19.0	.829 (-1.626)
-4.0	.992 (-0.071)	-11.6	.933 (-0.602)	-19.2	.826 (-1.661)
-4.2	.991 (-0.079)	-11.8	.931 (-0.623)	-19.4	.823 (-1.696)

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Page 1 of 2

CLIENT: *General*

Date: 11/10/03

ANTENNA TYPE: FM1/2 HWS

FREQUENCY: 98.1

PATTERN POL.: Circular

DIRECTIVITY(Peak): 1.39/ 1.43 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 1.39/ 1.43 dBd

Null Fill(s)(%) : 0, 0, 0

Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
-19.6	.819 (-1.731)	-27.2	.678 (-3.373)	-54.0	.186 (-14.615)
-19.8	.816 (-1.767)	-27.4	.674 (-3.424)	-55.0	.173 (-15.254)
-20.0	.812 (-1.804)	-27.6	.67 (-3.476)	-56.0	.16 (-15.914)
-20.2	.809 (-1.84)	-27.8	.666 (-3.528)	-57.0	.148 (-16.597)
-20.4	.806 (-1.877)	-28.0	.662 (-3.58)	-58.0	.136 (-17.304)
-20.6	.802 (-1.915)	-28.2	.658 (-3.633)	-59.0	.125 (-18.036)
-20.8	.799 (-1.953)	-28.4	.654 (-3.686)	-60.0	.115 (-18.794)
-21.0	.795 (-1.991)	-28.6	.65 (-3.739)	-61.0	.105 (-19.581)
-21.2	.792 (-2.03)	-28.8	.646 (-3.793)	-62.0	.096 (-20.397)
-21.4	.788 (-2.069)	-29.0	.642 (-3.848)	-63.0	.087 (-21.245)
-21.6	.784 (-2.108)	-29.2	.638 (-3.903)	-64.0	.078 (-22.126)
-21.8	.781 (-2.148)	-29.4	.634 (-3.958)	-65.0	.07 (-23.044)
-22.0	.777 (-2.188)	-29.6	.63 (-4.014)	-66.0	.063 (-24)
-22.2	.774 (-2.229)	-29.8	.626 (-4.07)	-67.0	.056 (-24.997)
-22.4	.77 (-2.27)	-30.0	.622 (-4.126)	-68.0	.05 (-26.039)
-22.6	.766 (-2.311)	-31.0	.601 (-4.416)	-69.0	.044 (-27.13)
-22.8	.763 (-2.353)	-32.0	.581 (-4.716)	-70.0	.039 (-28.274)
-23.0	.759 (-2.395)	-33.0	.561 (-5.027)	-71.0	.034 (-29.475)
-23.2	.755 (-2.438)	-34.0	.54 (-5.349)	-72.0	.029 (-30.74)
-23.4	.752 (-2.481)	-35.0	.52 (-5.683)	-73.0	.025 (-32.074)
-23.6	.748 (-2.524)	-36.0	.50 (-6.029)	-74.0	.021 (-33.487)
-23.8	.744 (-2.568)	-37.0	.479 (-6.387)	-75.0	.018 (-34.986)
-24.0	.74 (-2.612)	-38.0	.459 (-6.756)	-76.0	.015 (-36.583)
-24.2	.737 (-2.657)	-39.0	.44 (-7.138)	-77.0	.012 (-38.292)
-24.4	.733 (-2.701)	-40.0	.42 (-7.533)	-78.0	.01 (-40.128)
-24.6	.729 (-2.747)	-41.0	.401 (-7.941)	-79.0	.008 (-42.113)
-24.8	.725 (-2.793)	-42.0	.382 (-8.362)	-80.0	.006 (-44.272)
-25.0	.721 (-2.839)	-43.0	.363 (-8.797)	-81.0	.005 (-46.639)
-25.2	.717 (-2.885)	-44.0	.345 (-9.246)	-82.0	.003 (-49.26)
-25.4	.713 (-2.932)	-45.0	.327 (-9.71)	-83.0	.002 (-52.199)
-25.6	.71 (-2.98)	-46.0	.309 (-10.188)	-84.0	.002 (-55.546)
-25.8	.706 (-3.027)	-47.0	.292 (-10.682)	-85.0	.001 (-59.44)
-26.0	.702 (-3.076)	-48.0	.276 (-11.191)	-86.0	.001 (-64.112)
-26.2	.698 (-3.124)	-49.0	.259 (-11.717)	-87.0	.00 (-69.988)
-26.4	.694 (-3.173)	-50.0	.244 (-12.26)	-88.0	.00 (-78.01)
-26.6	.69 (-3.223)	-51.0	.229 (-12.821)	-89.0	.00 (-91.156)
-26.8	.686 (-3.272)	-52.0	.214 (-13.4)	-90.0	.00 (-50)
-27.0	.682 (-3.323)	-53.0	.20 (-13.998)	90.0	.00 (-50)

Systems With Reliability Inc.

Page 2 of 2

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FREQUENCY: 98.1

PATTERN POL.: Circular

DIRECTIVITY(Peak): 1.39/ 1.43 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 1.39/ 1.43 dBd

Null Fill(s)(%) : 0, 0, 0

Adjacent Channel Study **For Station K282AR, Facility_id: 153900**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
258615	27619	BLH	19971202KC	KZAM	HOOTEN BROADCASTING, INC	C2	GANADO	TX	LIC	50	159	284	2	24.1	1.4918
1123024	27619	BPH	20060407AAE	KZAM	FORT BEND BROADCASTING CO.	C2	GANADO	TX	APP	50	159	284	2	62.4	0
1082987	7084	BPH	20050923AFO	KOUL	TEJAS BROADCASTING LTD., LLP	C1	REFUGIO	TX	CP	100	302	279	3	94.5	0
679260	7084	BLH	20030814AJZ	KOUL	BMP DFW LICENSE COMPANY, L.P.	C1	SINTON	TX	LIC	100	302	279	3	94.5	0
682783	143020	BNPFT	20030828AGB	K285FL	HENRY S. BARTON	D	BAY CITY	TX	CP	0.25	90	285	3	97.1	0
1040485	78383	BMLH	20050203AEF	KPUS	CONVERGENT BROADCASTING OF CORPUS CHF	C3	GREGORY	TX	LIC	14	137	283	1	103.9	0
646938	153720	BNPFT	20030317GKI	NEW	EDGEWATER BROADCASTING, INC.	D	KARNES CITY	TX	APP	0.25	189.6	285	3	105.3	0
288791	21239	BMLH	19970318KB	KBUK		A	LA GRANGE	TX	LIC	4.3	160	285	3	123.7	0
652378	14019	BLH	20030318AAD	KMIQ	COTTON BROADCASTING	C2	ROBSTOWN	TX	LIC	31	180	285	3	145.6	0
46022	65329	BMLH	19820806AJ	KZEP-FM	TEXAS LOTUS CORP.	C1	SAN ANTONIO	TX	LIC	100	415	283	1	165.2	0
1080028	35524	BSTA	20050816AAZ	KRBE	KRBE LICO, INC.	C	HOUSTON	TX	APP	86	551.5	281	1	166	0
1083646	35524	BXLH	20050927AEI	KRBE	KRBE LICO, INC.	C	HOUSTON	TX	LIC	86	551.5	281	1	166	0
661915	35524	BXLH	20030519ADU	KRBE	KRBE LICO, INC.	C	HOUSTON	TX	LIC	48.9	247	281	1	166	0
1118253	35524	BMLH	20060309ABO	KRBE	KRBE LICO, INC.	C	HOUSTON	TX	LIC	92.18	605	281	1	166.3	0
1018907	83596	BPH	20041230ACP	KRIO-FM	BMP SAN ANTONIO LICENSE COMPANY, L.P.	C1	PEARSALL	TX	CP	36	577	281	1	176.3	0
605620	83596	BLH	20020712AAC	KRIO-FM	RADIO TUNA, LTD.	C1	PEARSALL	TX	LIC	100	430	281	1	176.3	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
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