

## **Non-Interference Compliance**

Regarding Facility id 142374

Channel 271

### **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 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 4 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 5 of this exhibit is an aerial photo of the vicinity surrounding the proposed translator's tower site.

**Note: The only structures within the zone of predicted interference are unoccupied communications buildings 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.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
1520528	BMLH20121015ACA	KZII-FM	118.6	117.5
1546781	BNPFT20130321AAE	K269FZ	118.6	100
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>100</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 **100 dBμ**, this makes the proposed translator's worst-case interfering contour **140 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **2.2 m** from the transmit antenna.

The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population").

**Note: The only structures within the zone of predicted interference are unoccupied communications buildings 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>JPL</b>
<b>Antenna Model:</b>	<b>LP-FM</b>
<b>CORAGL:</b>	<b>8 m</b>
<b>Maximum ERP:</b>	<b>0.01 kW</b>
<b>Interfering Contour:</b>	<b>140 dBμ</b>
<b>Max Int. Contour Distance:</b>	<b>2.2 m</b>

**Adjacent Channel Study**  
**For Station K271BW, Facility\_id: 142374**

**Co-channel through third adjacent:**

App_id	Fac_id	File_Number	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Char	Adj	Dist	Overlap
1546781	142023	BNPFT-20130321AAI	K269FZ	GRACE COMMUNITY CHURCH OF	D	LUBBOCK, SOUTH	TX	CP	0.034	1238	269	2	0	0.0597
1520528	61150	BMLH-20121015ACA	KZII-FM	TOWNSQUARE MEDIA LUBBOCK	C1	LUBBOCK	TX	LIC	100	1224	273	2	2.3	0.0597
1186206	60711	BLH-20021115AAM	KSNY-FM	SNYDER BROADCASTING COMP	C1	SNYDER	TX	LIC	100	956	268	3	98.3	0

Facility id: 142374;  
 33° Area of Interference;  
 101°52'30"

Mapped, edited, and published by the Geological Survey  
 Control by USGS and NOS/NOAA

Culture and drainage in part compiled from aerial photographs  
 taken 1954. Topography from planetable surveys 1957

Polyconic projection. 1927 North American datum  
 10,000-foot grid based on Texas coordinate system,  
 north central zone  
 1000-meter Universal Transverse Mercator grid ticks,  
 zone 14, shown in blue

Red tint indicates area in which only  
 landmark buildings are shown

Revisions shown in purple compiled from aerial photographs  
 taken 1970 and 1975. This information not field checked  
 Purple tint indicates extension of urban areas





