

Non-Interference Compliance

Regarding Facility id 147992

Channel 237

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 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 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.

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
1005414	BMLH20041227ACE	KIOK	75.3	75.1
37436	BLH19811222AI	KKSR	70.2	70.2
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				70.2

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 **70.2 dBμ**, this makes the proposed translator's worst-case interfering contour **110.2 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **342.7 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"). 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: SCA
Antenna Model: YA-7 @ 120°
CORAGL: 91 m
Maximum ERP: 0.25 kW
Interfering Contour: 110.2 dBμ
Max Int. Contour Distance: 342.7 m

Adjacent Channel Study **For Station K237DS, Facility_id: 147992**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1005414	12455	BMLH	20041227ACE	KIOK	NEW NORTHWEST BROADCASTERS LLC	C	RICHLAND	WA	LIC	100	736	235	2	43.4	0.2801
37436	35717	BLH	19811222AI	KKSR	KUJ LIMITED PARTNERSHIP	C	WALLA WALLA	WA	LIC	94	1221	239	2	71.6	0.2801
1131219	150553	BLFT	20060524AHZ	K237DP	JEFF HUFFMAN	D	KENNEWICK	WA	LIC	0.034	379	237	0	49.7	0
74032	12455	BLH	19841113KW	KIOK	TRIATHLON B/C OF TRI-CITIES LIC INC	C	RICHLAND	WA	LIC	4.6	130	235	2	54.4	0
1153316	12455	BXLH	20061010ADV	KIOK	NEW NORTHWEST BROADCASTERS LLC	C	RICHLAND	WA	LIC	4.6	170.1	235	2	56.7	0
1239114	150562	BLFT	20080317AID	K237DM	JEFF HUFFMAN	D	WALLA WALLA	WA	LIC	0.115	394	237	0	64.9	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
1104995	164224	BLH	20051006ABI	KRJT	PACIFIC EMPIRE RADIO CORP.	A	ELGIN	OR	LIC	0.115	1641	290	53	93	83



