

## **Non-Interference Compliance**

Regarding Facility id 152205

Channel 206

### **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.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
219254	BLED19960125KG	KDCR	68.9	68.5
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>68.5</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 **68.5 dBμ**, this makes the proposed translator's worst-case interfering contour **108.5 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **276.5 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.

<b>Antenna Manufacturer:</b>	<b>NIC</b>
<b>Antenna Model:</b>	<b>BKG77-2(.85)</b>
<b>CORAGL:</b>	<b>49 m</b>
<b>Maximum ERP:</b>	<b>0.11 kW</b>
<b>Interfering Contour:</b>	<b>108.5 dBμ</b>
<b>Max Int. Contour Distance:</b>	<b>276.5 m</b>

# **Adjacent Channel Study** **For Station K201ID, Facility\_id: 152205**

## **Co-channel through third adjacent:**

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
219254	17314	BLED	19960125KG	KDCR	DORDT COLLEGE, INC.	C1	SIOUX CENTER	IA	LIC	100	576	203	3	42.4	0.6564
1261372	84902	BPFT	20080916ADL	K205DC	EDUCATIONAL MEDIA FOUNDATION	D	SIOUX CITY	IA	CP	0.087	444	208	2	28.3	0
278440	84902	BLFT	19981211TC	K205DC	EDUCATIONAL MEDIA FOUNDATION	D	SIOUX CITY	IA	LIC	0.05	444	205	1	28.4	0
1283309	173640	BNPED	20071018AIB	NEW	IOWA STATE UNIVERSITY OF SCIENCE & TECHN	C3	SIOUX CITY	IA	APP	15	470.3	205	1	49.3	0
1204770	123228	BNPED	20071015DMM	NEW	AMERICAN FAMILY ASSOCIATION	A	SIOUX CITY	IA	APP	3.5	482	205	1	49.7	0
170018	58426	BLED	19920212KA	KUSD	S/DAKOTA BD OF DIR FOR ED. TELECOMUN	C1	VERMILLION	SD	LIC	32	614	209	3	54.2	0
1269405	92825	BMLFT	20080930BKV	K208DS	CALVARY CHAPEL OF TWIN FALLS, INC.	D	CHEROKEE	IA	LIC	0.226	375	208	2	60.5	0
1242004	92825	BPFT	20080403AAV	K208DS	CALVARY CHAPEL OF TWIN FALLS, INC.	D	CHEROKEE	IA	CP	0.25	375	205	1	60.5	0
1249779	152519	BPFT	20080610ACP	K202DW	EDGEWATER BROADCASTING, INC.	D	STORM LAKE	IA	CP	0.01	441	205	1	87.7	0
1072636	93750	BLFT	20050713ADJ	K204EO	EDUCATIONAL MEDIA FOUNDATION	D	YANKTON	SD	LIC	0.25	396	204	2	90	0
1204072	154848	BLFT	20070910AAO	K206DQ	HORIZON CHRISTIAN FELLOWSHIP	D	YANKTON	SD	LIC	0.045	408	206	0	90	0
97196	3239	BLED	19870129KB	KAUR	AUGUSTANA COLLEGE ASSOCIATION	A	SIOUX FALLS	SD	LIC	0.68	497	206	0	96.3	0
695735	47967	BMLED	20030822AGC	KXNE-FM	NEBRASKA EDUCATIONAL TELECOMMUNICATIO	C1	NORFOLK	NE	LIC	42	816	207	1	97.4	0
1214611	171812	BNPED	20071016ABA	NEW	WESTERN IOWA TECH COMMUNITY COLLEGE	A	DENISON	IA	APP	1.16	482	206	0	104.6	0
610836	92473	BLED	20020828AAS	KJIA	MINN-IOWA CHRISTIAN BROADCASTING, INC.	C2	SPIRIT LAKE	IA	LIC	50	530	205	1	111.8	0
1215738	177282	BNPED	20071022BQE	NEW	BREATH OF THE SPIRIT MINISTRIES	C1	ARTHUR	IA	APP	100	495	206	0	126.1	0
205023	42958	BLED	19941220KA	KRSW	MINNESOTA PUBLIC RADIO	C1	WORTHINGTON	MN	LIC	100	689	207	1	132.2	0
34155	29126	BLED	19810923AA	KIWR	IOWA WESTERN COMMUNITY COLLEGE	C	COUNCIL BLUFFS	IA	LIC	100	670	209	3	158.7	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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