

## **Non-Interference Compliance K202ED, Mount Vernon, WA FAC# 86755**

### **Description of Exhibit 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 adjacent channel study created with ComStudy 2.2 which shows all co-channel, 1<sup>st</sup> adjacent, 2<sup>nd</sup> adjacent and 3<sup>rd</sup> adjacent to the proposal.

Page 4 of this exhibit is a Google Earth aerial photo of the vicinity surrounding the proposed translator's tower site with the plotted zone of predicted interference.

## 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>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
BLED-20070919AAE	KMWS	63.7	63.7
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour			<b>63.7</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 **63.7 dBμ**, this makes the proposed translator's worst-case interfering contour **103.7 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **116.6m** 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 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: BEXT**  
**Antenna Model: TFC2K @ 220°**  
**CORAGL: 24 m**  
**Maximum ERP: 0.010 kW**  
**Interfering Contour: 103.7 dBμ**  
**Max Int. Contour Distance: 116.6 m**

**Adjacent Channel Study**  
**K202ED, Mount Vernon, WA FAC# 86755**  
**8/3/2023**

Callsign	State	City	Channel	ERP (W)	Class	Status	Distance (km)	Clr
KMWS	WA	MOUNT VERNON	209	1500	A	LIC	19.72	-3.97 dB
KQOW	WA	BELLINGHAM	212	100	A	LIC	50.53	0.28 dB
KSER	WA	EVERETT	214	5800	A	LIC	39.63	3.71 dB
KEXP-FM	WA	SEATTLE	212	4700	C3	LIC	83.35	3.43 dB
CBCV-FM	BC	VICTORIA	213	6300	C		97.74	5.50 dB
KSVU	WA	HAMILTON	211	1000	A	LIC	28.7	7.47 dB
KEXP-FM	WA	SEATTLE	212	560	A	LIC	83.35	9.33 dB
KWDB	WA	COUPEVILLE	266	10000	C3	CP MOD	21.96	10
KXIR	WA	FREELAND	210	1800	A	LIC	40.56	14.17 dB
NEW	BC	VICTORIA	209	3600	B		97.74	16.74 dB
NCE-MXG-221	WA	BAINBRIDGE ISLAND	211	100000	C	DEL	89.66	16.58 dB
NCE-MXG-221	WA	BAINBRIDGE ISLAND	209	100000	C	DEL	89.66	21.00 dB
KNWP	WA	PORT ANGELES	211	1600	A	LIC	106.78	21.89 dB
MM-FM1167-A	WA	COUPEVILLE	266	0	A		32.78	22.8
CBUX-FM	BC	VANCOUVER	215	2930	C1		120.99	22.17 dB
MM-FM1167-A	WA	COUPEVILLE	266	0	A		32.78	22.8
	BC	SATURNA ISLAND	213	0	C		80.64	23.71 dB
000216443-ALLO	WA	COUPEVILLE	266	0	C3	CP	35.61	23.6
CJSU-FM	BC	DUNCAN	209	3470	B		122.78	23.96 dB
	BC	VICTORIA	213	0	C		97.74	26.81 dB
K210CN	WA	BELLINGHAM	210	8	D	CP MOD	46.99	27.38 dB
	BC	HARRISON HOT SPRING	212	0	A		109.39	27.11 dB
K210CN	WA	BELLINGHAM	210	8	D	APP	46.99	27.38 dB
K210CN	WA	BELLINGHAM	210	7	D	LIC	46.99	27.39 dB
NEW	BC	VANCOUVER	215	625	B		120.91	28.97 dB
K214EW	WA	BELLINGHAM	214	45	D	LIC	50.53	28.23 dB
K212GL	WA	TACOMA	212	65	D	LIC	144.14	29.95 dB
NEW	BC	BURNABY	211	450	A		112.35	30.20 dB
KVTI	WA	TACOMA	215	51000	C1	LIC	135.91	30.39 dB
	BC	SATURNA ISLAND	209	0	C		80.64	31.92 dB
	BC	CHILLIWACK	211	0	A		88.43	34.96 dB
	BC	VICTORIA	209	0	B		97.74	35.26 dB
K212FK	WA	WENATCHEE, ETC.	212	50	D	LIC	168.27	35.42 dB
KHOD	WA	HOODSPORT	211	2300	A	CP MOD	125.07	37.52 dB
KUPS	WA	TACOMA	211	100	A	LIC	123.52	37.94 dB
K215DP	WA	PORT ANGELES	215	250	D	LIC	85	38.85 dB
	BC	SQUAMISH	212	0	A1		168.77	38.59 dB
CBUX-FM*	BC	VANCOUVER	215	0	C1		120.91	39.78 dB

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Google Earth Photo of Zone of Predicted Interference

