

Non-Interference Compliance K211EI, Lamar, CO FAC# 92416

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, 1st adjacent, 2nd adjacent and 3rd 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.

File Number	Call Sign	Contour at Tower
BLER-20140929AIN	KCSE	126.5
0000232570	KJLB-LIC	121.3
0000239769	KJLB-CP	122.7
Minimum F(50,50) Contour of Adjacent Station Within Proposed Translator's Interfering Contour		121.3

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 **121.3 dBμ**, this makes the proposed translator's worst-case interfering contour **161.3 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **0.9 m** from the transmit antenna.

Note: There are no unoccupied buildings within the zone of predicted interference, 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:	SCALA
Antenna Model:	FMV @ 0°
CORAGL:	64.0 m
Maximum ERP:	0.205 kW
Interfering Contour:	161.3 dBμ
Max Int. Contour Distance:	0.9 m

Adjacent Channel Study
K211EI, Lamar, CO FAC# 92416
4/2/2024

Callsign	State	City	Channel	ERP (W)	Class	Status	Distance (km)	Clr
KJLB	CO	LAMAR	209	10000	C3	CP	0.19	-76.92 dB
KJLB	CO	LAMAR	209	1400	A	APP	0.19	-68.38 dB
KJLB	CO	LAMAR	209	1400	A	CP MOD	0.19	-68.38 dB
KJLB	CO	LAMAR	209	1000	A	LIC	0.19	-66.92 dB
KCSE	CO	LAMAR	214	4000	A	LIC	0.21	-62.34 dB
K211EI	CO	LAMAR	211	205	D	LIC	0	-9.68 dB
KVJB	CO	LAS ANIMAS	211	100000	C1	CP	74.42	2.47 dB
KZNK	KS	BREWSTER	211	90000	C1	LIC	171.71	27.48 dB
KTLF	CO	COLORADO SPRINGS	213	20000	C0	LIC	212.79	32.00 dB
DDK211CH	KS	LEOTI	211	250	D	APP	119.37	34.03 dB
KAIG	KS	DODGE CITY	210	100000	C1	LIC	200.67	35.76 dB
K212GD	NM	RATON	212	250	D	LIC	206.09	36.97 dB
KLEC	KS	LIBERAL	213	50000	C2	LIC	186.01	37.86 dB
K211FI	OK	KEYES	211	240	D	LIC	139.42	38.72 dB
KGCD	CO	WRAY	212	430	A	LIC	226.15	38.96 dB

Aerial Photo Zone of Predicted Interference
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April 2, 2024

