

Non-Interference Compliance K272AY, Crescent City, CA, FAC# 71987

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	Callsign	Contour at Tower	Min. Contour
BLH-19850513KH	KCNA	61.8	61.8
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour			61.8

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 **61.8 dBμ**, this makes the proposed translator's worst-case interfering contour **101.8 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **58.3m** 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: There are no structures 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: BEXT
Antenna Model: TFC2K
CORAGL: 14 m
Maximum ERP: 0.066 kW
Interfering Contour: 101.8 dBμ
Max Int. Contour Distance: 58.3 m

Adjacent Channel Study
K272AY, Crescent City, CA FAC# 71987
6/15/2023

Callsign	State	City	Channel	ERP (W)	Class	Status	Distance (km)	Clr
K272AY	CA	CRESCENT CITY	272	66	D	LIC	1.56	-62.34 dB
K272AY	CA	CRESCENT CITY	272	66	D	APP	0	-55.12 dB
KCNA	OR	CAVE JUNCTION	274	100000	C	LIC	84.81	-1.84 dB
KHWA	CA	WEED	272	15500	C1	LIC	144.73	8.82 dB
KNHT	CA	RIO DELL	273	4500	C1	LIC	117.27	8.28 dB
K272FC	OR	VOORHIES	272	99	D	LIC	130.22	15.28 dB
K271CJ	CA	SCOTIA	271	140	D	LIC	117.48	19.98 dB
K272FM	OR	AZALEA	272	10	D	APP	142.8	20.97 dB
KCMX-FM1	OR	ASHLAND	270	42000	C	LIC	130.34	21.59 dB
KHWA	CA	WEED	272	4800	C2	CP MOD	139.26	22.63 dB
K269GM	OR	BROOKINGS	269	250	D	LIC	63.73	23.32 dB
K275BI	CA	EUREKA	275	99	D	LIC	77.46	24.98 dB
K272FM	OR	AZALEA	272	10	D	LIC	142.8	30.32 dB
KCNA-FM1	OR	JACKSONVILLE, ETC.	274	4100	D	LIC	130.2	35.14 dB
KYOE	CA	POINT ARENA	272	1200	B1	LIC	293.27	39.19 dB

Google Earth Aerial Photo of Zone Of Predicted Interference
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June 15, 2023

