

[Exhibit 13]

Non-Interference Compliance

Regarding Facility id 77003

Channel 204

Description of Exhibit 13 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 dB μ 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.

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 an aerial photo of the vicinity surrounding the proposed translator's tower site.

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 dB μ 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
1480755	BLED20111219AEP	KWAO	77.7	77.7
1784114	BPED20170213AAP	KWAO	77.8	77.8

Minimum F(50,50) Contour of Adjacent Station within
Proposed Translator's Standard Interfering Contour **77.7**

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 **77.7 dB μ** , this makes the proposed translator's worst-case interfering contour **117.7 dB μ** . By the free-space equation, this contour is calculated to extend a maximum of **98 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").

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: BEX
Antenna Model: TFC2K
CORAGL: 24 m
Maximum ERP: 0.115 kW
Interfering Contour: 117.7 dB μ
Max Int. Contour Distance: 98 m

Adjacent Channel Study

CSN International

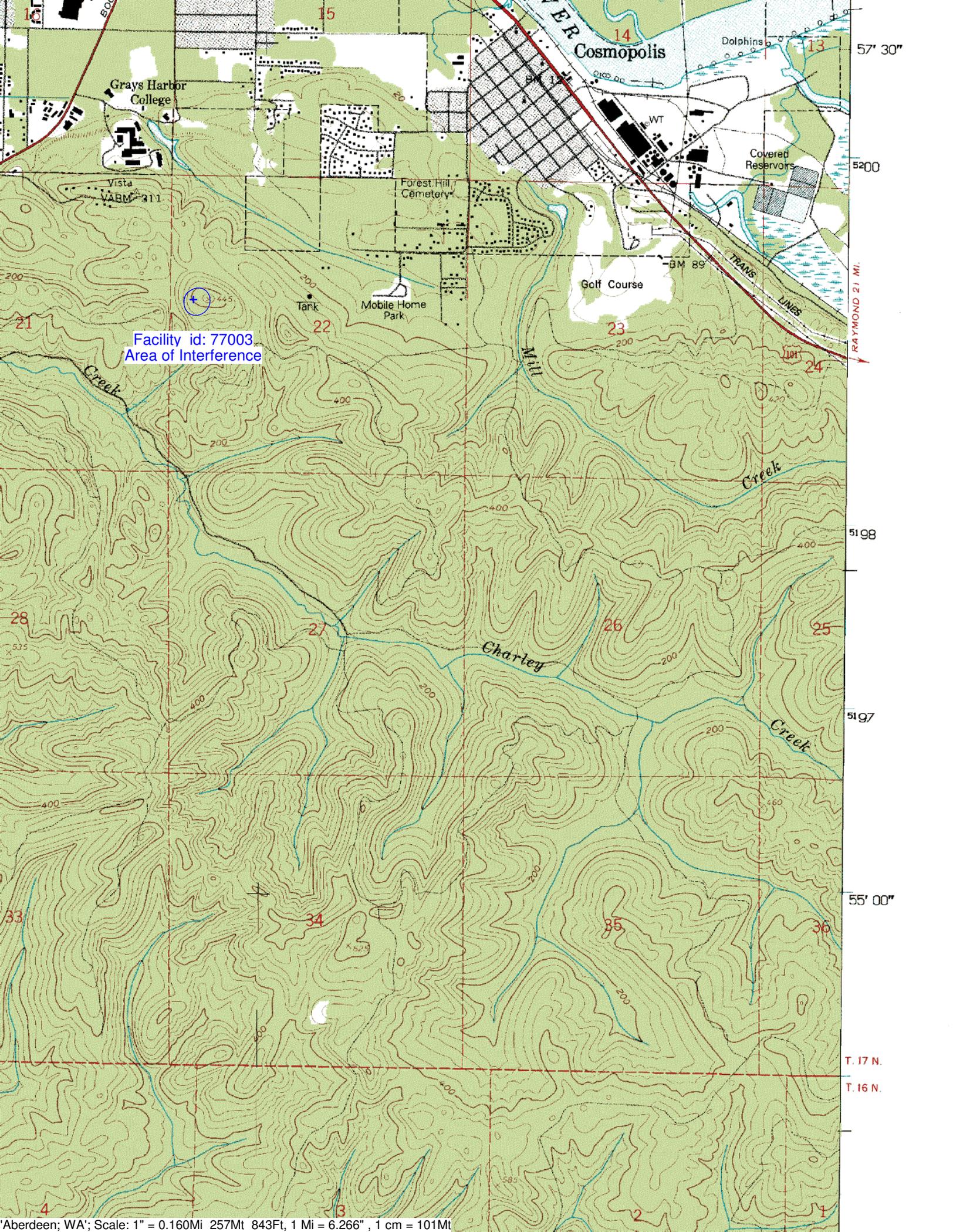
REFERENCE
46 56 44.00 N.
123 47 52.50 W.

CH# 204D - 88.7 MHz, Pwr= 0.115 kw, HAAT= 75.3 M, COR= 148 M
Average Protected F(50-50)= 9.3 km
Omni-directional

DISPLAY DATES
DATA 04-14-22
SEARCH 04-14-22

CH CITY	CALL	TYPE STATE	ANT AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
204D Aberdeen	K204ET	APP _CN WA	0.0 0.0	0.00 0000186988	46 56 44.00 123 47 52.50	0.115	264	---Reference--- CSN International		
204D Aberdeen	K204ET	LIC _VN WA	106.3 286.4	5.12 BMLFT20130322AEF	46 55 57.30 123 43 59.50	0.115 114	196	---Reference--- CSN International		
201C Vashon	KWAO	LIC DCN WA	38.1 218.4	51.99 0000144029	47 18 45.60 123 22 19.50	65.000 667	13.3 947	94.5 Educational Media Foundati	29.5	-43.3*
204C3 Ocean Park	KLOY	LIC _CN WA	185.2 5.1	76.23 BLED20180830AAA	46 15 45.30 123 53 13.50	0.900 317	75.8 362	25.6 Educational Media Foundati	-8.3	20.0
205A Ocean Shores	KOSW-FM	CP DCN WA	316.2 136.0	39.99 0000165561	47 12 17.00 124 09 51.00	6.000 60	31.8 107	18.7 City of Ocean Shores	-1.8	2.1
206A Montesano	KGHE	CP _CN WA	84.8 264.9	15.87 BPED20190415AAC	46 57 30.30 123 35 22.60	0.255 94	1.1 186	14.5 Grays Harbor Institute	4.7	0.5
206A Montesano	KGHE	LIC _CN WA	84.8 264.9	15.87 0000088798	46 57 30.30 123 35 22.60	0.255 94	1.1 186	14.5 Grays Harbor Institute	4.7	0.5
203C Tacoma	KNKX	LIC DCN WA	65.1 246.4	150.91 BLED20080715ADJ	47 30 13.40 121 58 33.40	68.000 707	135.4 940	92.4 Pacific Public Media	5.5	45.0
205C3 Chehalis	KSWS	LIC _CN WA	127.4 307.9	71.17 BLED20100618AWV	46 33 15.40 123 03 30.50	1.000 306	51.3 475	33.9 Washington State Universit	10.6	24.7
207C3 Ocean Park	762639	APP DCN WA	176.0 356.0	27.87 0000166813	46 41 43.60 123 46 21.20	0.950 291	0.6 378	15.9 Tillicum Foundation	18.4	10.8
257C Elma	KDDS-FM	LIC ZCN WA	38.1 218.4	52.04 BMLH20090211ABR	47 18 45.30 123 22 19.60	64.000 742	1.4 1033	34.0 Bustos Media Holdings, LLC	28.5R	23.5M
207C3 Cathlamet	766255	APP DCN WA	160.6 340.8	57.08 0000167162	46 27 39.30 123 33 02.50	0.370 599	0.5 876	21.9 Cascade Community Radio	48.3	33.0
06 -- Seattle	KYMU-LD<<	CP DHN WA	54.4 235.4	132.87 0000106741	47 37 58.89 122 21 23.89	3.000	8.3 244	31.3	39.6R	93.3M
06 -- Seattle	KYMU-LD<<	LI DHN WA	54.4 235.4	132.87 0000081648	47 37 58.89 122 21 23.89	3.000	8.3 244	5.2	13.5R	119.4M

Terrain database is FCC NGDC 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
<< = Station meets FCC minimum distance spacing for its class.
Reference station has protected zone issue: AM tower



Facility id: 77003
Area of Interference

