

TELECOMMUNICATIONS ENGINEERING  
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Prepared for The Tillicum Foundation  
11 August 2020

### ALLOCATION CONSIDERATIONS

On 5 August 2020 an allocation analysis was performed using data from the commission's CDBS current as of 29 July 2020. The software to perform this analysis was provided by V-soft Communications. A copy of this study is attached.

This analysis revealed two assignment requiring further study. These are the licensed second channel adjacent facilities of KCPB, Warrenton, Oregon and the third channel adjacent facilities of KMUN, Astoria, Oregon.

The 100 dBu interfering contour of the proposed facility is entirely encompassed by the KCPB and KMUN 60 dbu protected contours.

KMUN is the proposed primary station. Per 47CFR74.1204(e), a translator providing fill-in service may cause limited third channel adjacent interference to its primary station as long as no such interference occurs within the primary station Community of License. The entirety of the proposed 100 dBu contour lies without the corporate boundaries of the City of Astoria.

The applicant is also licensee of KCPB. The K217FG operation predates that of KCPB. No complaints of interference have ever been brought to the attention of the licensee/applicant. K217FG is located on a mast affixed to an athletic storage outbuilding at Lewis and Clark School. This building is slated for demolition and the applicant wishes to relocate the station approximately 75 meters SW of the existing location on a mast to be affixed to the school's athletic field concession stand.

The new location is also approximately 75 meters farther away from the KCPB transmitter. The applicant proposes to operate at the same power and with the same

antenna pattern as its current operation at an elevation above ground level approximately 4 meters less. There will be no significant difference in the location or extent of the area of predicted interference to KCPB.

Per 47CFR74.1204(c) -

An application for a change (other than a change in channel) in the authorized facilities of an FM translator station will be accepted even though overlap of field strength contours would occur with another station in an area where such overlap does not already exist, if:

- (1) The total area of overlap with that station would not be increased;
  - (2) The area of overlap with any other station would not increase;
  - (3) The area of overlap does not move significantly closer to the station receiving the overlap;
- and,
- (4) No area of overlap would be created with any station with which the overlap does not now exist.

The proposed operation meets all four of these criteria with respect to KCPB.

The applicant believes that this demonstrates conclusively that the operation proposed herein meets all of the Commission's Rules of Allocation.

Gray Frierson Haertig & Assoc.  
Portland, Oregon

Tillicum Foundation  
Astoria, Oregon

REFERENCE  
46 08 53.80 N.  
123 50 33.80 W.

CH# 217D - 91.3 MHz, Pwr= 0.05 kW DA, HAAT= -353.2 M, COR= 27 M  
Average Protected F(50-50)= 4.71 km  
Standard Directional

DISPLAY DATES  
DATA 07-29-20  
SEARCH 08-05-20

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*
220C2 Astoria	KMUN	LIC OR	---	345.0 164.9	13.15 BLED20030707AAM	46 15 45.30 123 53 13.50	7.200 332	4.7 376	51.0 Tillicum Foundation	4.1	-38.2*
215A Warrenton	KCPB-FM	LIC D OR	---	345.0 164.9	13.15 BLED20100715AAE	46 15 45.30 123 53 13.50	0.240 341	1.1 385	24.7 Tillicum Foundation	7.7	-12.0*
218C0 Portland	KOPB-FM	LIC OR	---	129.0 309.7	109.75 BLED20030213AAI	45 31 20.40 122 44 49.40	73.000 470	117.4 561	79.1 Oregon Public Broadcasting	-9.0*	28.2
217D South Astoria	K217FG	LIC D OR	---	308.7 128.7	0.07 BLFT20100312ABL	46 08 55.30 123 50 36.50	0.050 -17	18	---Reference--- Tillicum Foundation		
217A South Bend	KACW	LIC D WA	---	5.0 185.1	61.06 BLED20120425ADR	46 41 43.40 123 46 21.60	0.225 271	56.7 361	17.7 Chehalis Valley Educationa	0.1	27.3
216C2 Kelso	KTJC	LIC D WA	---	73.1 253.7	70.42 BLED20040302AAC	46 19 45.30 122 57 54.40	8.000 189	25.3 385	17.1 Calvary Chapel Of Twin Fal	41.8	44.7
219D Nehalem	K219KU	LIC D OR	---	185.2 5.1	52.94 BLFT20060525ACI	45 40 26.40 123 54 15.50	0.028 160	0.4 296	5.8 Cascade Educational Broadc	50.7	42.1
216A Tillamook	KTMK	LIC OR	---	184.6 4.5	76.07 BLED20050728AMH	45 27 58.40 123 55 15.50	0.140 356	31.4 453	20.9 Oregon Public Broadcasting	43.0	50.8
214D Raymond	K214FI	LIC WA	---	5.0 185.1	61.06 BLFT20181001AHN	46 41 43.30 123 46 21.50	0.019	0.3 380	10.0 Pacific Public Media	56.1	49.9
217A Centralia	KCED	LIC WA	---	46.5 227.2	92.21 BLED19900515KA	46 42 55.30 122 57 52.40	1.000 -22	35.6 85	10.2 Centralia College, Distric	52.4	70.2
214C1 Portland	KBOO	LIC OR	---	129.1 309.9	115.22 BLED19910909KC	45 29 19.40 122 41 44.30	26.500 386	7.0 480	59.8 The Kboo Foundation	106.6	54.0
06 -- Tillamook	KPWC-LD«	CP _HN OR	---	157.0 337.5	141.15 0000054569	45 39 36.60 122 23 39.30	3.000	0.5 346	33.9	34.4R	106.8M

Terrain database is 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.  
Reference station has protected zone issue: AM tower