

**Part 1 - Channel Study**

REFERENCE	CH#	201C2- 88.1 MHz, Pwr= 8.6 kW, HAAT= 358.9 M, COR= 1849 M		Average Protected F(50-50)= 52.5 km		Omni-directional		DISPLAY DATES			
41 53 43.2 N.								DATA	03-05-18		
112 04 43.1 W.								SEARCH	03-05-18		
CH CITY	CALL	TYPE STATE	ANT	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
201A Ogden	KUAO!	LIC CX UT		190.5 10.4	72.30 BLED20171027AAA	41 15 18.4 112 14 08.8	1.550 200	81.8 1482	28.6 Educational Media Foundati	-69.6	-97.9
202D Wellsville	K202EJ!	LIC C UT		161.5 341.6	33.26 BLFT20140603AAJ	41 36 41.0 111 57 05.0	0.019 139	14.4 1734	10.3 Calvary Chapel Of Twin Fal	-31.2*<	-51.0*<
204C1 North Ogden	KNKL	LIC VX UT		202.7 22.6	36.54 BLED20170824AAD	41 35 30.5 112 14 54.0	73.000 297	9.2 1623	68.4 Educational Media Foundati	-34.0*<	-37.3*<
202D Randolph, Etc.	K202AF!	LIC DHN UT		110.4 291.1	84.94 BLFT19821102II	41 37 31.0 111 07 23.0	0.020 339	13.1 2363	9.0 University Of Utah	14.2	-10.4*<
201D Coalville, Etc.	K201AE!	LIC DC UT		156.4 336.8	125.96 BLFT20141105ADD	40 51 18.0 111 28 44.0	0.115	53.8 2839	14.3 Community Wireless Of Park	24.0	-5.2<
201C1 Buhl	KTFY	LIC VX ID		296.5 115.0	214.02 BLED20050811AAA	42 43 48.0 114 25 06.0	60.000 199	144.2 1370	55.9 Idaho Conference Of Sevent	19.5	37.1
202C3 Salt Lake City	KCPW-FM	LIC DCX UT		181.8 1.8	140.43 BMLED20170209ABB	40 37 53.0 112 07 50.0	0.450 416	34.5 2088	22.6 Wasatch Public Media	49.3	33.3
201A Pleasant Grove	KPGR	LIC CN UT		170.0 350.3	172.70 BLED19810914AE	40 21 48.0 111 43 30.0	0.115 -344	19.3 1457	5.8 Alpine School District	101.5	42.0

Terrain database is FCC NGDC 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
 Contour distances are on direct line to and from reference station. Reference Zone= - Zone 2, Co to 3rd adjacent.  
 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.  
 < = Contour Overlap

**Part 2 - Request for Waiver of 47 C.F.R. Section 73.509**

Educational Media Foundation (EMF) desires to increase the power and service area of station KUAO to serve Tremonton, UT. The proposed modification of a licensed facility meets all contour protection requirements except towards one.

As seen in Part 1 of Exhibit 18, this proposed modification of KUAO will overlap the protected and interfering KNKL licensed contours.

KNKL previously agreed to accept interference from KUAO. According to the KNKL license, as seen in BLED-20170824AAD, Special Operating Condition Number Five:

Further modification of KUAO(FM), Facility ID No. 71394, Ogden, UT, will not be construed as a per se modification of KNKL(FM's facility). (See Educational Information Corporation, 6 FCC Rcd. 2207 (1991).

In abiding by the above information, this proposed increased service area would RECEIVE interference from the following third adjacent facility (see Exhibit 18-A for a contour map of the interference area):

Facility ID	Status	Call Sign	City of License
122023	License	KNKL	North Ogden, UT

The area of "overlap received" from the above referenced facility (the area falling over water was discounted as seen in Exhibit 18-A) will be approximately:

Call Sign (or File #)	Square km	Total area of proposed 60 dBu
KNKL	214.2	2.7%

The grant of this waiver request will allow KUAO to increase its overall coverage area by 6,795.0 sq km which is a gain of 713%. The population in the proposed 60dbu service contour will decrease from 333,804 to 172,076 (total 60dbu contour population of 172,719 persons minus the 643 persons in the KNKL 100dbu interfering contour) which is a decrease of 48.44%. The population in the interference received area is 643 persons which is 0.37% of the 172,719 persons in the entire proposed 60dbu(F50-50) contour. The population and coverage areas are seen in Exhibit 18-B. Note the coverage areas are taking into account the area over water. This waiver request is nearly identical to the requests made by the licensees of WCPE(FM) and WCCE(FM) in Educational Information Corporation, 6 FCC Rcd 2207 (1991). WCPE(FM) requested a waiver in its application to permit *de minimus* overlap "received," and WCCE(FM) requested a waiver in its application to permit *de minimus* overlap "caused." In recognition of the importance of affording noncommercial educational stations the flexibility to expand and meet the growing demand for service, the Commission granted both waiver requests. The instant request fully satisfies the criteria established by the Commission for waiver of Section 73.509 of the Commission's rules as it pertains to overlap received\*.

Significant service will be maintained and enhanced by the proposed expansion of KUAO, and the overlap area is very small and well within the scope of the Commission's waiver policy. Clearly, this benefit heavily outweighs the potential for interference in an area that constitutes less than 4% (total) of the station's proposed service area. Accordingly EMF respectfully submits that a waiver of Section 73.509(a) of the Commission's rules is in the public interest and is justified in this instance.

\* EMF wishes to emphasize that its request is not at all similar to the second waiver request made by WCPE in Educational Information Corporation, 1997 FCC LEXIS 2636 (May 20, 1997). Unlike here, WCPE was seeking a waiver of overlap "caused" in that second case.

**Overlap Population Report**  
**KUAO.P (201) / KNKL (204)**

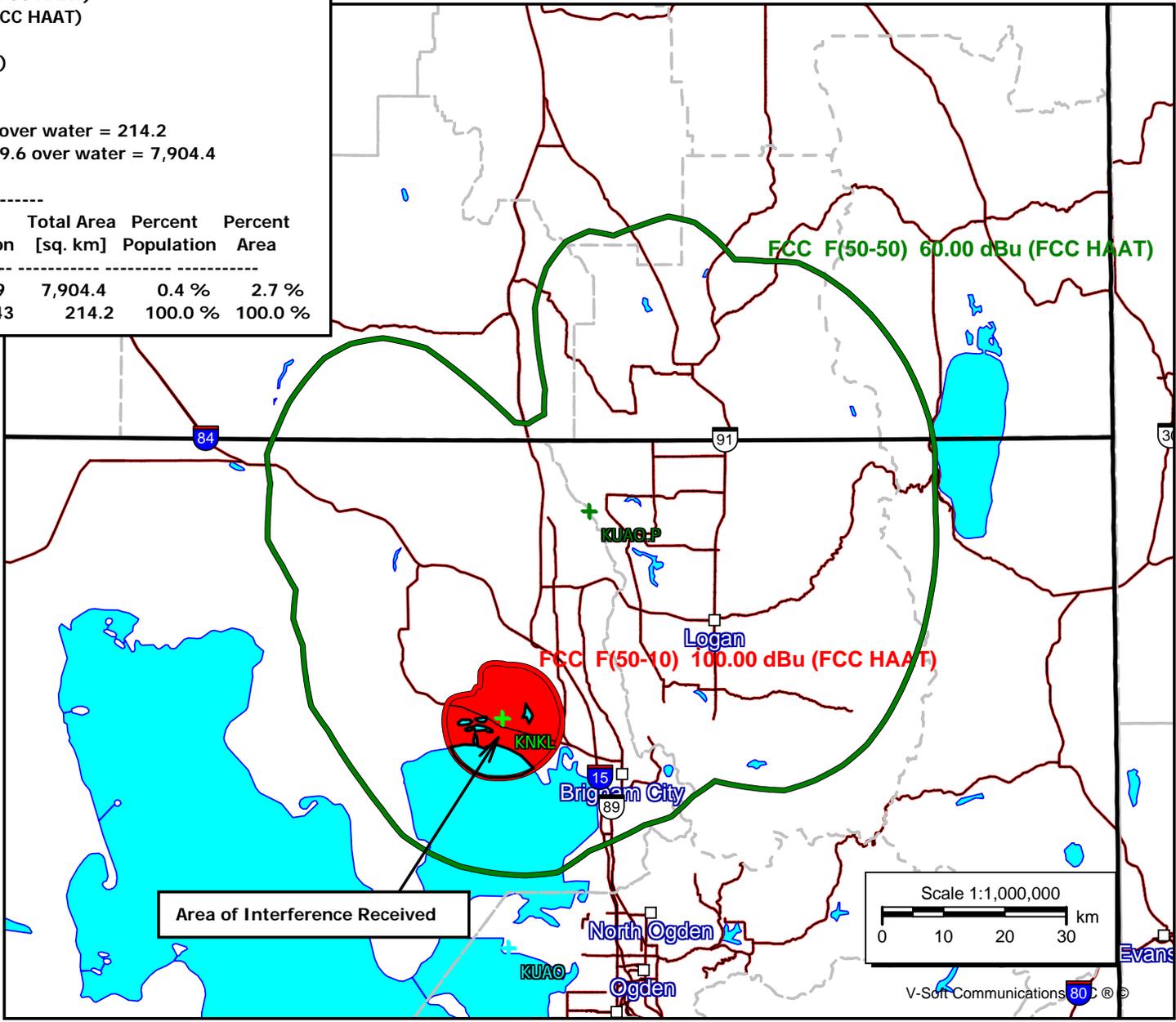
Overlap Area Type: Intersection  
 Areas Included:  
 KUAO.P (201): FCC F(50-50) 60.00 dBu (FCC HAAT)  
 KNKL (204): FCC F(50-10) 100.00 dBu (FCC HAAT)

Population Database: 2010 US Census (PL)

Total Population: 643  
 Overlap Area: 272.38 sq. km - 58.2 sq km over water = 214.2  
 KUAO Proposed 60dbu Contour 8,424 - 519.6 over water = 7,904.4

Area Description	Total Population	Total Area [sq. km]	Percent Population	Percent Area
KUAO.P (201): FCC F(50-50)60	172,719	7,904.4	0.4 %	2.7 %
KNKL (204): FCC F(50-10)100	643	214.2	100.0 %	100.0 %

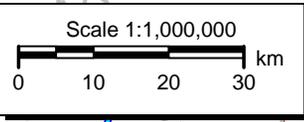
**Exhibit 18-A**  
**Overlap Contours of KUAO.P and KNKL**



**KUAO.P**  
 Latitude: 41-53-43.20 N  
 Longitude: 112-04-43.10 W  
 ERP: 8.60 kW  
 Channel: 201  
 Frequency: 88.1 MHz  
 AMSL Height: 1849.0 m  
 Elevation: 1829.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

**KNKL**  
 BLED20170824AAD  
 Latitude: 41-35-30.50 N  
 Longitude: 112-14-54 W  
 ERP: 73.00 kW  
 Channel: 204  
 Frequency: 88.7 MHz  
 AMSL Height: 1623.0 m  
 Elevation: 1573.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

Area of Interference Received



V-Soft Communications 80 ©

Population Report for All Contours

Population Database: 2010 US Census (PL)  
 Coverage Areas are discounted for water

	Population	Housing Units	Area (sq. km)
KUAO (201) [ Ogden, UT ]			
FCC F(50-50) 60.00 dBu	333,804	115,424	1109.0
KUAO.P (201) [ Tremonton, UT ]			
FCC F(50-50) 60.00 dBu	172,719	58,908	7904.0

# Exhibit 18-B Licensed and Proposed Contours

■ KUAO (201)  
■ KUAO.P (201)

**KUAO.P**

Latitude: 41-53-43.20 N  
 Longitude: 112-04-43.10 W  
 ERP: 8.60 kW  
 Channel: 201  
 Frequency: 88.1 MHz  
 AMSL Height: 1849.0 m  
 Elevation: 1734.52 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

**KUAO**  
 BLED20171027AAA

Latitude: 41-15-18.40 N  
 Longitude: 112-14-08.80 W  
 ERP: 1.55 kW  
 Channel: 201  
 Frequency: 88.1 MHz  
 AMSL Height: 1482.0 m  
 Elevation: 1427.0 m  
 Horiz. Pattern: Omni  
 Vert. Pattern: No  
 Prop Model: None

