

**Broadcast Engineering Services of Bonny Doon, Inc.**

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**Engineering Statement in support of a Minor Change  
KZET Cortez, New Mexico  
BPED-20120113ABP**

Community Radio Project (CRP) is requesting a minor modification to the KZET construction permit (BPED-20120113ABP). CRP proposes to migrate to an adjacent tower on Ute Mountain, change the height of the antenna system, and increase the effective radiated power to 2.0 kilowatts. CRP proposes using a two-bay circularly polarized non-directional antenna system on an existing tower. The tower is 18.3 meters in height, and the proposed radiation center above mean sea level is 2726 meters, which is 873.1 meters above average terrain. The ground elevation is 2709 meters above sea level. The proposed center of the antenna array is 17 meters above ground.

The proposed antenna system is a Shively 6813-2R-.925-SS, a two bay, .925 wave spaced design. This antenna will produce a calculated worst-case RFR energy field of 59.6  $\mu\text{W}/\text{cm}^2$  at a distance of 9.2 meters from the base of the tower support structure. This is about 24% of the public limit, and is therefore compliant with the FCC rules concerning RFR both on and adjacent to the proposed tower location.

An allocation study for Ch. 213 was performed to verify clearances to other authorized facilities surrounding the proposed site. No conflicts were found, and the proposed facility clears all surrounding licenses and construction permits.

CRP is ready to construct the facility with these specified changes. Once this modification is granted, construction will commence on the transmission facilities and will be completed well within the time limitations imposed by the construction permit.

Respectfully submitted,



Donald E. Mussell Jr. NCE-CBT  
Consulting Engineer  
June 21, 2012

KZET CP Minor change  
Community Radio Project

REFERENCE 37 13 13.0 N. 108 48 24.0 W.	CH# 213C1 - 90.5 MHz, Pwr= 2 kw, HAAT= 873.1 M, COR= 2726 M Average Protected F(50-50)= 59.76 km Omni-directional	DISPLAY DATES DATA 06-19-12 SEARCH 06-20-12
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CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
213C1 Cortez	KZET	CP _CX CO	208.1 28.1	0.10 BPED20120113ABP	37 13 10.0 108 48 26.0	1.900 902	125.2 2753	51.3 Community Radio Project	-188.0*	-193.6*
212A Cortez	KZET	LIC _CX CO	41.9 222.1	39.24 BLED20111122COP	37 28 57.0 108 30 34.0	0.100 100	26.7 2269	18.0 Community Radio Project	-42.4*	-64.3
214A Placerville	KTEI	LIC _HX CO	40.3 220.8	112.93 BLED20071012AOD	37 59 30.0 107 58 21.0	0.250 449	47.9 3359	30.7 Educational Communications	10.0	0.8
213A Dulce	KCIE	LIC DEN NM	98.6 279.7	165.37 BLED19901001KA	36 59 00.0 106 58 12.0	0.100 468	54.8 2757	13.5 Jicarilla Apache Tribe	52.8	9.5
215C3 Farmington	KSJE	LIC _CN NM	138.0 318.3	78.01 BLED19901108KB	36 41 52.0 108 13 14.0	15.000 119	4.6 1824	43.5 San Juan College	11.2	30.8
211C1 Ignacio Vertical Polarization Only	KUTE	LIC DVN CO	79.7 260.3	92.23 BLED19980717KA	37 21 51.0 107 46 56.0	3.000 599	1.8 3029	45.0 Kute, Inc.	30.8	38.8
212A Ouray	NEW	CP _CX CO	48.3 229.0	133.90 BNPED20071018AWW	38 00 57.0 107 39 59.0	3.000 -764	19.5 2521	13.2 Academy Media Inc.	56.9	36.3
267C1 Durango	KIQX«	APP DCX CO	86.4 266.9	80.38 BPH20120430AEQ	37 15 44.0 107 54 08.0	100.000 127	12.8 2398	58.8 Four Corners Broadcasting,	33.5R	46.9M

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= - 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 protected contour.  
« = Station meets FCC minimum distance spacing for its class.

KZET - KTEI  
Community Radio Project

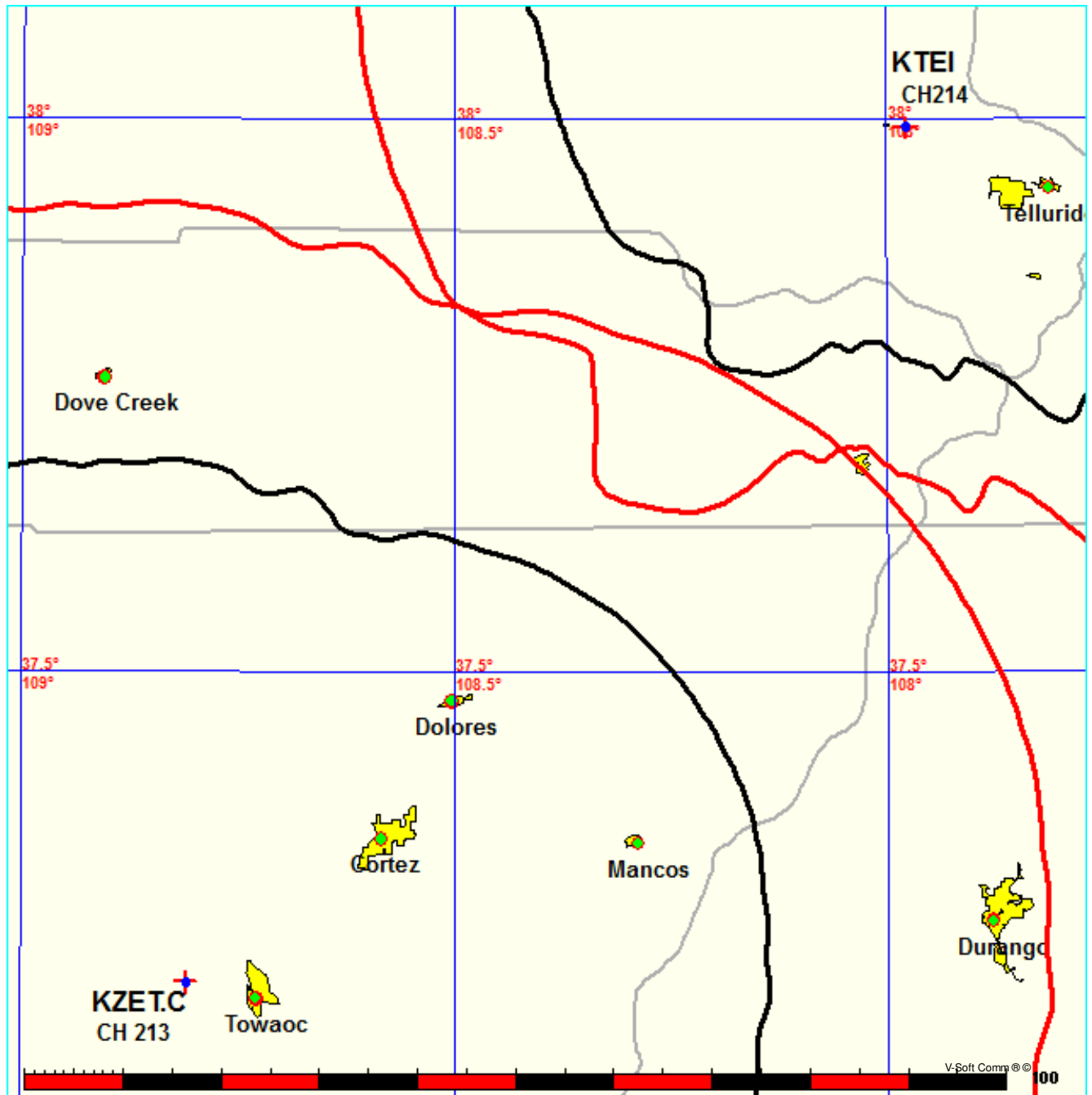
FMCommander Single Allocation Study - 06-20-2012 - FCC NGDC 30 Sec  
KZET.C's Overlaps (In= 9.95 km, Out= 0.77 km)

KZET.C CH 213 C1

Lat= 37 13 13.0, Lng= 108 48 24.0  
2.0 kW 873.1 M HAAT, 2726 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

KTEI CH 214 A BLED20071012AOD

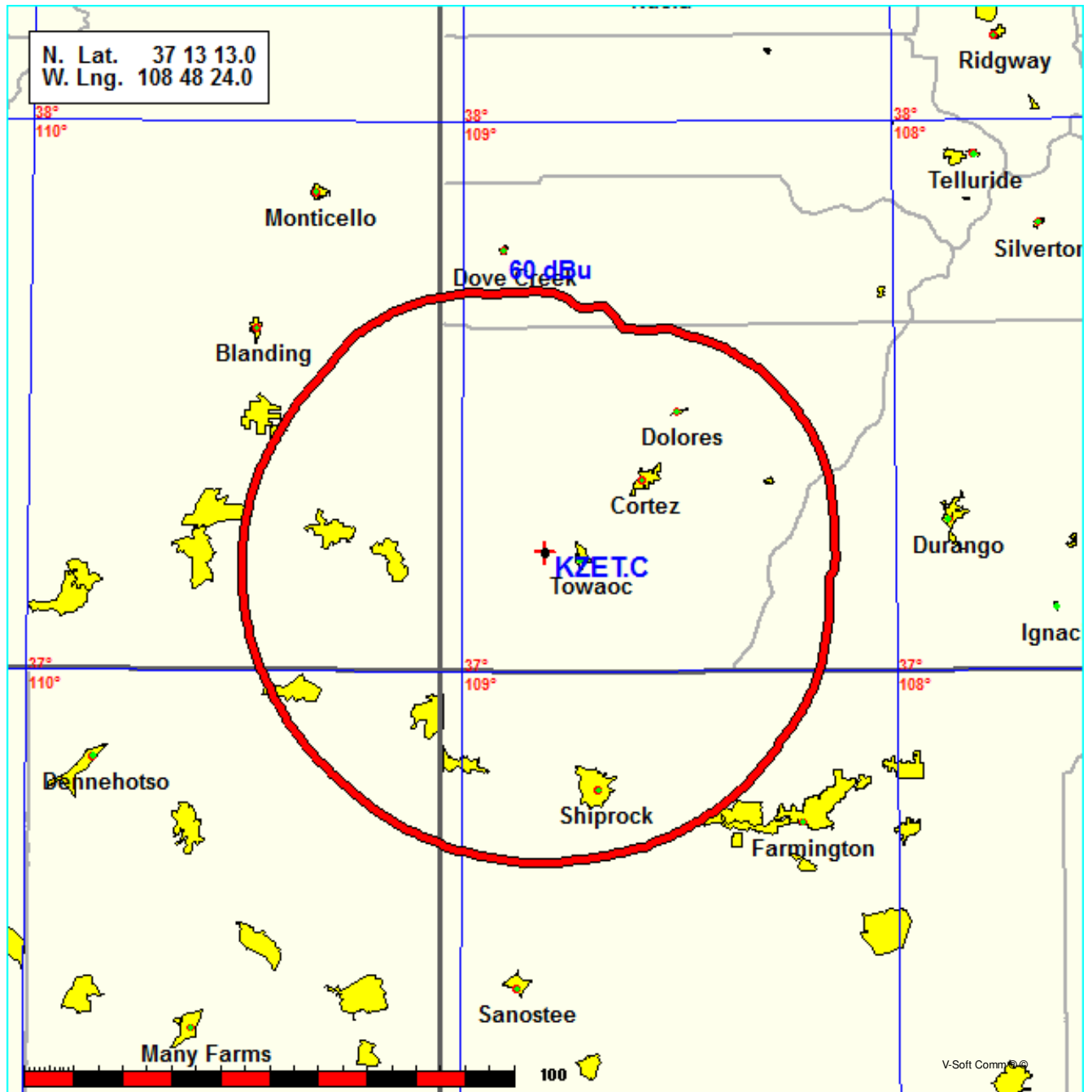
Lat= 37 59 30.0, Lng= 107 58 21.0  
0.25 kW 449.3 M HAAT, 3359 M COR  
Prot.= 60 dBu, Intef.= 54 dBu



KZET Proposed 60 dbu contour  
Community Radio Project

Coverage Study - FCC NGDC 30 Sec  
06-20-2012

KZET-C CH213 C1, 2.0 kW, 873.1M HAAT, 2726.0M COR AMSL  
Service Contour = 60 dBu. Population = 43,502



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