

# Minor Modification of Application

## BNPFT-20030314BMT-Facility ID No. 138467

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This exhibit is for the Long Form of translator applications BNPFT-20030314BMT-Facility ID No. 138467.

### **BNPFT-20030314BMT-Facility ID No. 138467**

The proposed antenna is to be located on an existing tower identified by registration number 1239881, with recently corrected coordinates, at 53 meters above ground. Below as **Figure 1** is an overlap and spacing study from which it can be determined that this proposal is within the protected contour of **second** adjacent channel station K276BT and **third** adjacent primary KAZX.

**Concerning second adjacent K276BT;** we will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called “Living Way”, allows for the use of D/U Analysis, also known as “signal strength ratio methodology” to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents in the location of the proposed translator antenna location.

In **Figure 2** a map showing the predicted 115 dBu signal contour of the protected facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 155.0 dBu in a habitable/populated area. Utilizing the line of sight equation shown in **Figure 3** which considers the vertical elevation pattern of the proposed antenna, it has been determined that a 155.0 dBu signal developed by 250 watts, as proposed, emitted by the proposed antenna mounted 53 meters above ground, will not reach ground level. With examination of the image(s) in **Figure 4** it can be determined that no habitable space extends above this height within the confines of this contour. Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

**Concerning third adjacent KAZX:** Because this facility is the primary, interference is not allowed in the principal community. **Figure 5** is a map demonstrating that the proposed 100 dBu does not enter the community.

## RF Radiation Statement

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

The proposed antenna system is a composite **RFS CPF500-1 (1) element; full-wave spaced** antenna mounted 53 meters above ground. As this element type is not modeled in any current computer program, for purposes of this analysis the FM Model program has been set to calculate values for a "worst case" type of antenna element array, "Ring Stub", operated with an effective radiated power of 0.25 Kilowatts in the vertical plane. At 2 meters above the surface, at 14.0 meters from the base of the tower, this proposal will contribute worst case, 3.8 microwatts per square centimeter, or 0.4 percent of the allowable ANSI limit for controlled exposure, and 2.0 percent of the allowable limit for uncontrolled exposure. This figure is less than 5.0% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

138467 At Corrected Short Form Location												
Capstar Tx Limited Partnership												
CH# 277D - 103.3 MHz, Pwr= 0.25 kw, HAAT= 122.3 M, COR= 2399 M												
Average Protected F(50-50)= 14.2 km												
omni-directional												
DISPLAY DATES												
DATA 08-30-13												
SEARCH 08-30-13												
REFERENCE	CH#	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kw)	INT(km)	PRO(km)	*IN*	*OUT*
37 15 41.4 N.	277D		STATE		<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap	in km)
107 54 11.2 W.												
277D 628837	APP	C_	284.4	0.19	37 15 43.0	0.250	64.7	21.3	-71.6*	-44.8*		
Durango	CO		104.4	BNPFT20030314BMT	107 54 19.0	122	2373	Capstar	Tx Limited Partner			
275C0 KAZX	LIC	_CX	178.9	49.62	36 48 52.0	100.000	9.8	70.7	14.7	-22.2*		
Kirtland	NM		358.9	BLH20060309ABN	107 53 32.0	303	2129	Capstar	Tx LLC			
279D K279BT	CP	C_	284.4	0.19	37 15 43.0	0.120	0.8	17.7	-7.7*	-18.6*		
Durango	CO		104.4	BNPFT20130325AJF	107 54 19.0		2373	Capstar	Tx Limited Partner			
278D K278AD	LIC	DH_	298.0	24.47	37 21 52.0	0.010	3.0	1.5	14.4	12.8		
Mancos	CO		117.9	BLFT20120925ADL	108 08 50.0		3135	Proclaiming Christ's Love				
277C2 KPRU	LIC	C_	351.2	181.61	38 52 40.0	12.000	158.5	71.9	16.0	85.9		
Delta	CO		171.0	BLE020010411AAF	108 13 32.0	301	2316	Public Broadcasting Of Col				
223A KKDG	LIC	NHX	96.8	28.30	37 13 51.0	0.100	0.0	0.0	10.0R	18.3M		
Bayfield	CO		277.0	BLH20080317ABA	107 35 11.0	-83	2142	winton Road Broadcasting C				
280D K280FL	LIC	DV_	178.9	49.59	36 48 53.0	0.250	0.8	18.1	23.7	30.4		
Aztec	NM		358.9	BLFT20110916ABW	107 53 31.0		2130	Voice Ministries of Farmin				
276D 1569807	APP	_V_	18.7	64.60	37 48 44.0	0.250	10.1	7.1	33.7	26.7		
Silverton	CO		198.9	BNPFT20130829ABR	107 39 59.0		2840	Vocie Ministries of Farmin				
276D 1563979	APP	_V_	18.7	64.60	37 48 44.0	0.250	10.1	7.1	33.7	26.7		
Silverton	CO		198.9	BNPFT20030317JOV	107 39 59.0		2840	Vocie Ministries of Farmin				
277C KDRF	LIC	C_	149.8	262.06	35 12 50.0	20.000	202.2	94.5	35.2	93.8		
Albuquerque	NM		330.6	BLH20020425ABH	106 27 01.0	1293	3314	Radio License Holding cbc,				
278C2 R11000	ADD	___	253.7	137.19	36 54 23.0	50.000	82.6	55.8	41.2	61.2		
Teec Nos Pos	AZ		72.8		109 22 52.0	150	1835	Smoke & Mirrors, LLC Et. A				
Counterproposal in MB Doc. No. 05-263												
278C2 R10991	ADD	___	253.7	137.19	36 54 23.0	50.000	82.6	55.8	41.2	61.2		
Teec Nos Pos	AZ		72.8		109 22 52.0	150	1835	Sanpete County Broad'g Co.				
Counterproposal in MB Doc. No. 05-263												
278C3 KPAU	CP	_CX	65.4	127.35	37 43 47.0	0.880	65.2	42.7	46.3	61.0		
Center	CO		246.2	BPH20130524ADT	106 35 18.0	504	3365	Cochise Media Licenses LLC				
One Step Application												

Figure 2. Contour Map

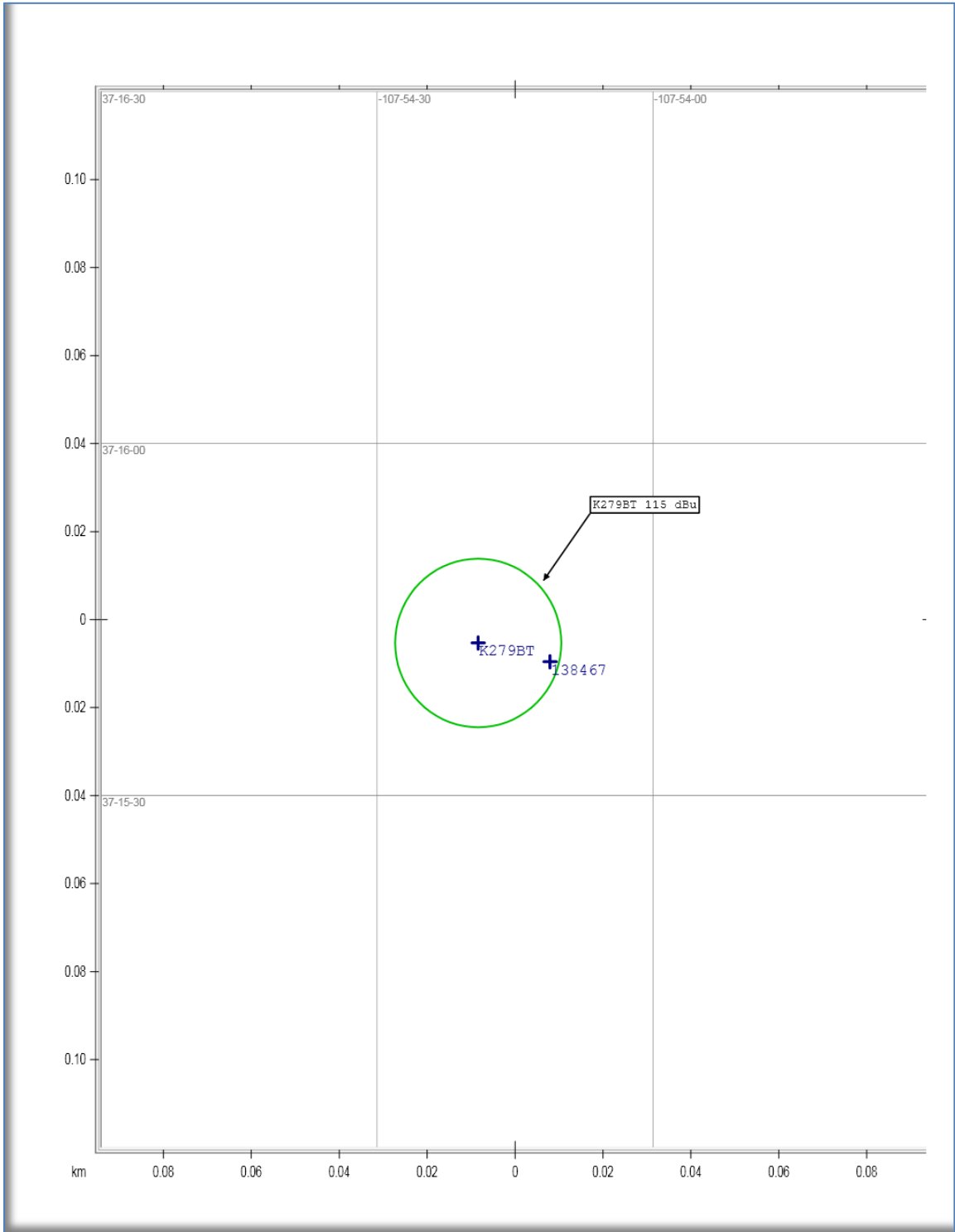


Figure 3. Signal Level at and Near Ground Level

<b>Proposed Antenna: RFS CPF500-1</b> <b>Proposed Power:</b> 0.25 kW <b>Antenna Height AGL:</b> 53 meters <b>Interference Contour:</b> 155 dBu <b>Artificial Rcv Antenna Height:</b> 2 meters <b>Distance (Free Space) Equation:</b> $= (10^{((106.92 - [\text{desired dBu}] + [\text{ERP in dBk}]) / 20)}) * 1000$ <b>Field Strength (dBu) Equation:</b> $= 106.92 - (20 * (\text{LOG10}[\text{DistMeters} / 1000])) + [\text{ERP in dBk}]$								
<div>Fill in "yellow" cells</div>								
Depression				Distance				
Angle	Antenna			from Ant.	Distance	Field Stren	Distance	eld Strengt
Below	Relative	ERP	ERP	to Interf	from Ant. to	in dBu @	from Ant.	in dBu @
Horizon	Field	in kW	in dBk	Contour	Artificial Plane	Artificial Plane	to Ground Level	Ground Level
0°	1.000	0.250	-6.02	1.97 m	infinite	---	infinite	---
-5°	0.949	0.225	-6.48	1.87 m	585.16 m	105.10 dBu	608.11 m	104.76 dBu
-10°	0.805	0.162	-7.91	1.59 m	293.70 m	109.66 dBu	305.21 m	109.32 dBu
-15°	0.594	0.088	-10.55	1.17 m	197.05 m	110.48 dBu	204.78 m	110.15 dBu
-20°	0.353	0.031	-15.06	0.70 m	149.11 m	108.39 dBu	154.96 m	108.05 dBu
-25°	0.123	0.004	-24.24	0.24 m	120.68 m	101.05 dBu	125.41 m	100.72 dBu
-30°	0.062	0.001	-30.21	0.12 m	102.00 m	96.53 dBu	106.00 m	96.20 dBu
-35°	0.178	0.008	-21.04	0.35 m	88.92 m	106.90 dBu	92.40 m	106.57 dBu
-40°	0.217	0.012	-19.28	0.43 m	79.34 m	109.65 dBu	82.45 m	109.31 dBu
-45°	0.189	0.009	-20.47	0.37 m	72.12 m	109.29 dBu	74.95 m	108.95 dBu
-50°	0.115	0.003	-24.78	0.23 m	66.58 m	105.68 dBu	69.19 m	105.34 dBu
-55°	0.023	0.000	-38.79	0.05 m	62.26 m	92.25 dBu	64.70 m	91.92 dBu
-60°	0.060	0.001	-30.40	0.12 m	58.89 m	101.12 dBu	61.20 m	100.79 dBu
-65°	0.114	0.003	-24.88	0.22 m	56.27 m	107.03 dBu	58.48 m	106.70 dBu
-70°	0.128	0.004	-23.89	0.25 m	54.27 m	108.34 dBu	56.40 m	108.00 dBu
-75°	0.104	0.003	-25.71	0.20 m	52.80 m	106.75 dBu	54.87 m	106.42 dBu
-80°	0.012	0.000	-44.44	0.02 m	51.79 m	88.20 dBu	53.82 m	87.86 dBu
-85°	0.007	0.000	-49.12	0.01 m	51.19 m	83.62 dBu	53.20 m	83.28 dBu
-90°	0.058	0.001	-30.72	0.11 m	51.00 m	102.05 dBu	53.00 m	101.71 dBu

Figure 4. Aerial Image of Area Near Proposed Support Tower



Figure 5. Contour Map

