

Amendment to Minor Modification Application
Facility ID No. 155742

This amendment to the pending minor modification application of translator facility 155742, which is seeking to relocate the translator to a two bay half wave spaced ERI non-directional roto-tiller style antenna mounted on ASR 1267585 at 186 meters above ground to serve as a fill-in translator for station KQXT, is made to specify the correct antenna model. No request for a change in location, height, ERP, or channel is being made.

Below as Figure 1 is a spacing study from which it can be determined that this proposal is within the protected contour of station KSMG and is within the protected contour of both the licensed and applied for facilities of K292FF. The K292FF application is for a change of channel only.

Section 74.1204(d) states that *“The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an 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.”*

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”, as recently described in FCC 08-242 in connection with BPFT-19981001TA, allows for the use of U/D Analysis, also known as “signal strength ratio methodology” to be utilized. In this instant case the facilities of KSMG and K292FF are 2nd and 3rd adjacent and are to be afforded protection from signals 40 dB stronger.

Figure 2 is a map showing the predicted signal contours of KSMG and K292FF at the proposed transmitter location utilizing the FCC F50:50 curve. KSMG is predicted to present 86.45 dBu F50:50 signal at the translator tower location, and K292FF licensed and applied for facilities, which are to use the same power and antenna, but with a change of 1 channel from 2nd to 3rd adjacent to this proposal and thus have the same desired signal strength to be protected, is predicted to produce 65.3 dBu at the translator tower. Thus the 21.15 dB lower signal of K292FF becomes “controlling” as protection of the weaker signal of K292FF will also protect the much stronger KSMG.

Figure 3a is an image of the antenna location over which a contour of 105.3 dBu, 40 dB greater than K292FF signal of 65.3 dBu, has been projected. The projection does not take into account the vertical plane radiation pattern of the translator antenna and can be thought to exist only in the same plane as the radiating antenna. Figure 3b is the same location and contour as 3a, excepting for an inclined view angle of the projected contour. Figure 4 is a plot provided by the antenna manufacturer which was used to develop the table in Figure 5.

Figure 5 depicts the predicted signal strength from the translator both at ground level, and at receiving antenna locations up to 57 meters above ground level of the translator, the 57 meter data is identified in the table as the “artificial plane”, and as can be determined by the columns colored green, at no location from ground level to 57 meters above ground does the predicted signal exceed that of 40 dB greater than K292FF.

A careful examination of the area inside the contour depicted in Figure 3 has found 3 structures which have habitable space higher than 57 meters above ground. Two Marriott hotels and a Hyatt hotel, which

are all located north of the translator and closer to K292FF, exceed 57 meters above ground. Of these hotels the Hyatt is at the greatest distance from K292FF and is also closest to the proposed translator. This building is also of the greatest height of the 3 structures and thus becomes the “controlling structure” as if compliance can be demonstrated in this building; it is assured in the others. At a maximum reported height of 425 Ft. (130 m) the building penetrates well into the spherical area predicted to receive a signal greater than 105.3 dBu from the translator. However, at heights greater than 30 Ft. (9.1 m) the predicted 65.3 dBu receive signal of K292FF is no longer valid as the F50:50 tables used to predict the 65.3 dBu signal assumes a receive antenna height of only 30 Ft. above ground¹. The habitable locations 57 meters and higher will receive a stronger signal from K292FF than is predicted by the F50:50 curves. As receive height is increased the impacts of terrain and obstacles becomes less and the propagation path becomes increasingly a pure “Line of Sight” or “Free Space” described path. In Figure 6 a path profile is presented from the K292FF transmitter site to the Hyatt Hotel with terrain, field strength, 0.6 Fresnel zone, and line of sight path presented.

To more accurately predict the signal from K292FF that would be presented to receivers located 57 m and more above ground at the Hyatt Hotel, a propagation model that takes receive antenna height into consideration is required. The FCC has been known to accept four propagation models, the F50:50 curves, free space, Point to Point, and Longley- Rice. Only Point to Point and Longley-Rice take a variable for the receive antenna height into consideration in calculating signal strength. It is worth noting that the free space formula is not considerate to receive height and might be applicable in cases involving path profiles demonstrated free of external attenuations of ground cover and terrain along the path.

The Longley Rice propagation model as implemented in the microcomputer program “Probe 4” has been utilized to calculate the signal received at the Hyatt Hotel for an antenna located at height from 9.1, to 130 meters, the results of those calculations are presented in a table as Figure 7, with individual calculations given in Figure 8a to 8f. The geographic location used in the calculation is the corner of the Hyatt closest to the translator.

Those data refine what is observable in the profile path in Figure 6, that a “free space” propagation pathway exists and that it is free of any intervening terrain or other attenuations, and that a 69.97 dBu signal from K292FF should be expected. The value to be protected from a 40 dB greater translator signal is 109.97 dBu. Figure 9 is a profile between the translator location and the location of the Hyatt; it indicates the distance between those locations to be 350 m and there is no material change in elevation between those locations.

Utilizing the line of sight equation “ $=106.92-(20*(\text{LOG}_{10}[\text{DistMeters}]/1000)))+[\text{ERP in dBk}]$ ” which was used to develop the table in Figure 5, it has been determined that a 109.97 dBu signal is developed by 145 watts, as proposed, isotropic emitter extends only out to a distance of 268 m. As this is 82 m short of the Hyatt, 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.

Processing with a waiver of 74.1233(a)(1) as afforded “Cromwell” in DA 11-1495 is requested.

¹ Repot No. R-6602; Development of VHF and UHF Propagation Curves for TV and FM Broadcasting” September 7, 1966

The proposed facilities are mutually exclusive with the existing facilities, as demonstrated by the overlap of the 40 dBu F.1 and the 60 dBu F.5 contours as shown in Figure 6.

Also on Figure 10 are the 60 dBu F.5 of the proposal and of KQXT, demonstrating this proposal qualifies for "fill-in" status of an FM station.

Initially licensed in August 2007 just 1 km from the present location, the facility has not engaged in "hopping".

The proposed facility will not preclude a LPFM facility.

The present facility is located in the same Arbitron market as the proposed facility.

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 an ERI brand EPA type 3 "Rototiller", 2 bay antenna half wave element spaced, which has been evaluated using the program "FM Model, mounted with its center of radiation 12.9 meters vertically above the closest point to the antenna within any "uncontrolled" area, and will operate with an effective radiated power of 0.145 Kilowatts in both the horizontal and vertical planes. At 2 meters above the surface, at 22 meters from the closest point of approach, this proposal will contribute worst case, 7.25 microwatts per square centimeter, or 0.73 percent of the allowable ANSI limit for controlled exposure, and 3.65 percent of the allowable limit for uncontrolled exposure. This figure is less than 5% 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.

Figure 1. Spacing Study

K289BN at TOA Carlos Lopez											
REFERENCE CH# 289D - 105.7 MHZ, Pwr= 0.145 kw, HAAT= 0.0 M, COR= 384 M										DISPLAY DATES	
29 25 06.5 N.										DATA 02-29-12	
98 29 01.0 W.										SEARCH 03-05-12	
Average Protected F(50-50)= 6.19 km Omni-directional											
CH	CALL	TYPE	ANT	AZI	DIST	LAT	PWR(kw)	INT(km)	PRO(km)	*IN*	*OUT*
CITY	STATE			<--	FILE #	LNG	HAAT(M)	COR(M)	LICENSEE	(Overlap	in km)
289D	K289BN	APP _C_		0.0	0.0	29 25 06.5	0.145	46.4	14.0	-60.4*	-60.4*
	San Antonio	TX		0.0	BPFT20120127AJL	98 29 01.0		384	Carlos Lopez		
287C	KSMG	LIC _C_		126.9	26.6	29 16 29.0	100.000	12.2	83.7	-1.8	-58.0*
	Seguin	TX		307.0	BLH20060427AFC	98 15 52.0	453	611	Cox Radio, Inc.		
289C3	KNAF-FM	LIC ZCX		338.6	112.7	30 21 49.0	9.100	109.4	43.4	-10.5	23.5
	Fredericksburg	TX		158.4	BLH20041217AXT	98 54 47.0	164	754	Hill Country Broadcasting,		
289C3	AL9235	RSV-A _		334.7	119.8	30 23 37.0	25.000	116.5	41.5	-10.2	33.1
	Fredericksburg	TX		154.5	RM10629	99 01 05.0	100	701			
289D	K289BN	LIC _C_		179.0	49.6	28 58 15.0	0.075	17.6	5.4	15.6	-8.6
	San Antonio	TX		359.0	BLFT20120126AAB	98 28 30.0		167	Carlos Lopez		
291D	K292FF	APP DV_		58.5	8.7	29 27 34.0	0.150	0.9	11.9	-7.0*	-4.0*
	Terrell wells	TX		238.6	BPFT20120120ABI	98 24 24.0		310	Calvary Chapel of Twin Fal		
292D	K292FF	LIC DV_		58.5	8.7	29 27 34.0	0.150	0.9	11.9	-7.0*	-4.0*
	Terrell wells	TX		238.6	BLFT20070329ADQ	98 24 24.0		97	Calvary Chapel of Twin Fal		
289C3	KTKO	LIC _CN		148.0	123.8	28 28 16.0	25.000	110.5	35.9	-2.9	35.6
	Beeville	TX		328.3	BLH19960314KB	97 48 39.0	100	188	Beeville Investments, LLC		
From channel 285A Per D89-510											
290D	K290BO	LIC DC_		283.3	31.2	29 28 57.0	0.099	10.8	7.5	5.8	1.6
	Lackland City	TX		103.1	BLFT20100914AAE	98 47 48.0	38	335	Multimedeos Radio ola		
290A	KAHL-FM	LIC _CX		261.5	76.9	29 18 49.0	6.000	46.3	30.0	15.6	24.2
	Hondo	TX		81.1	BLH20090303AAF	99 15 59.0	100	375	San Antonio Radioworks, L1		
236C1	KG5X	LIC NCX		308.2	38.8	29 38 03.0	100.000	80.8	68.0	22.0R	16.8M
	Comfort	TX		128.1	BLH20071121AGJ	98 47 57.8	201	616	Univision Radio License Co		
290C2	KFMK	LIC NCY		33.1	120.1	30 19 23.0	4.500	69.4	46.4	36.4	52.2
	Round Rock	TX		213.4	BLH19980818KB	97 47 58.0	397	615	Crista Ministries		
289A	NEW	CP NCX		213.2	139.9	28 21 42.6	6.000	83.5	25.7	40.6	62.6
	Cotulla	TX		32.9	BNPH20110630AIV	99 16 08.8	75	211	Panther Communications LLC		
292C3	KMLR	LIC _C_		68.8	83.6	29 41 17.0	15.000	3.7	36.7	64.9	46.1
	Gonzales	TX		249.2	BMLED20060111AAT	97 40 39.0	129	257	Educational Media Foundati		
291A	KKVR	LIC NCX		316.3	95.9	30 02 27.0	6.000	3.5	36.7	79.3	58.3
	Kerrville	TX		136.0	BLH20070911ADB	99 10 19.0	100	657	Radio Ranch, Ltd		

Terrain database is 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= , 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.

Figure 2. Contour Map

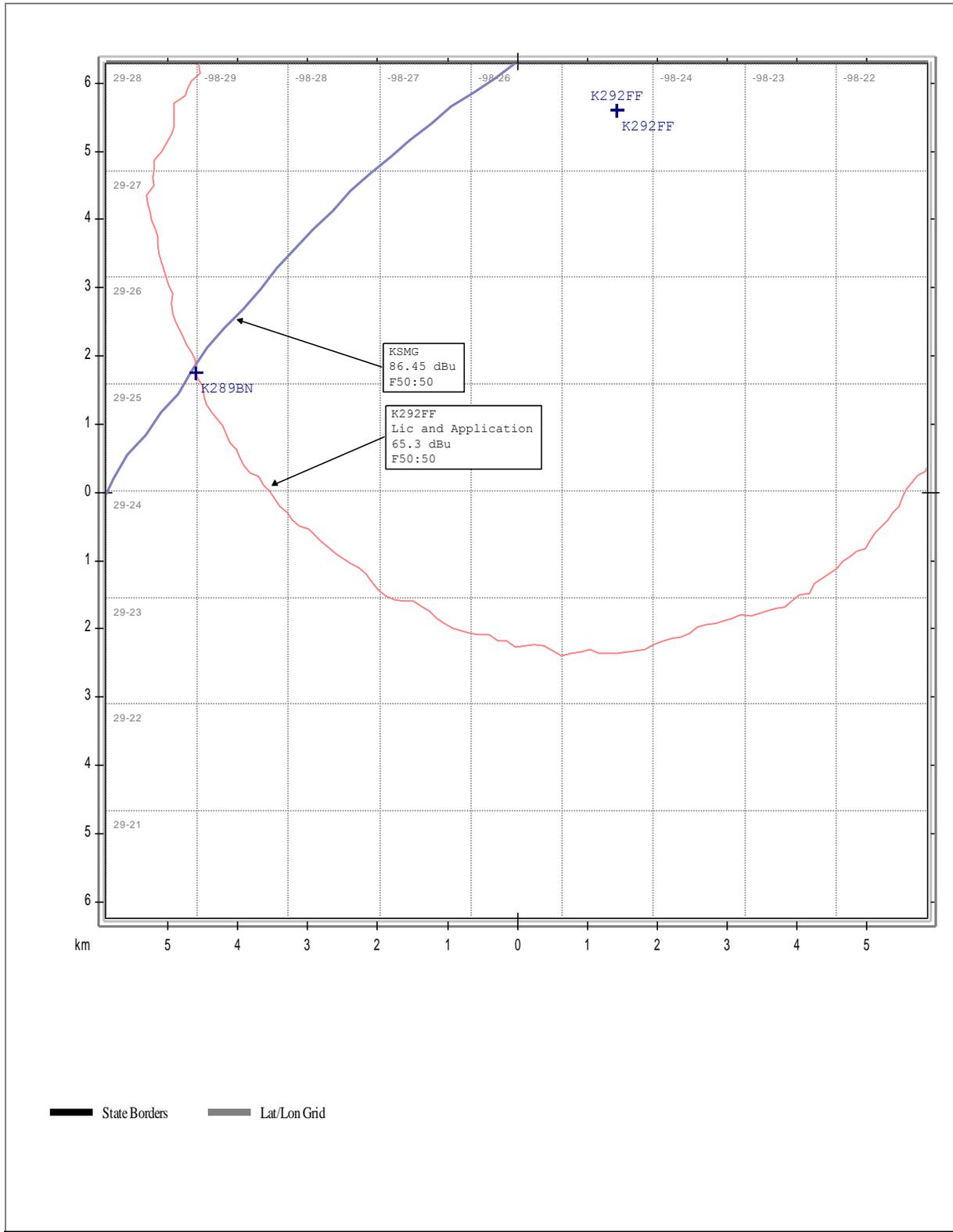


Figure 3a. Aerial View With Contour.

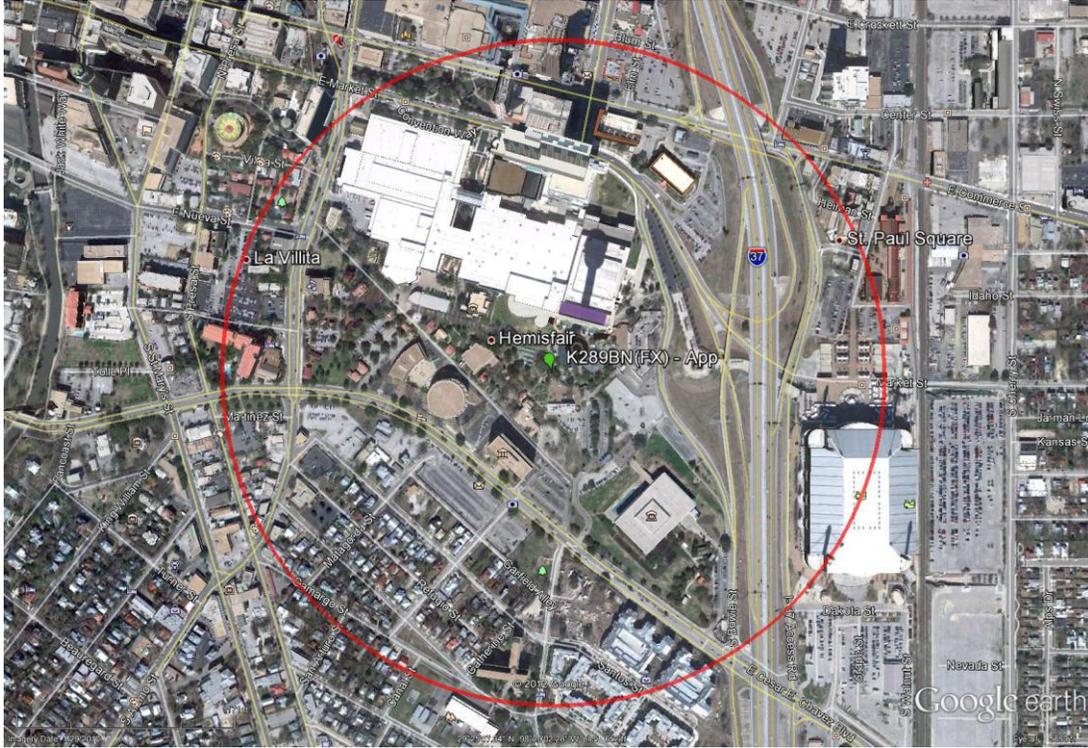


Figure 3b. Aerial View With Contour from 3a, Except With Inclined View.

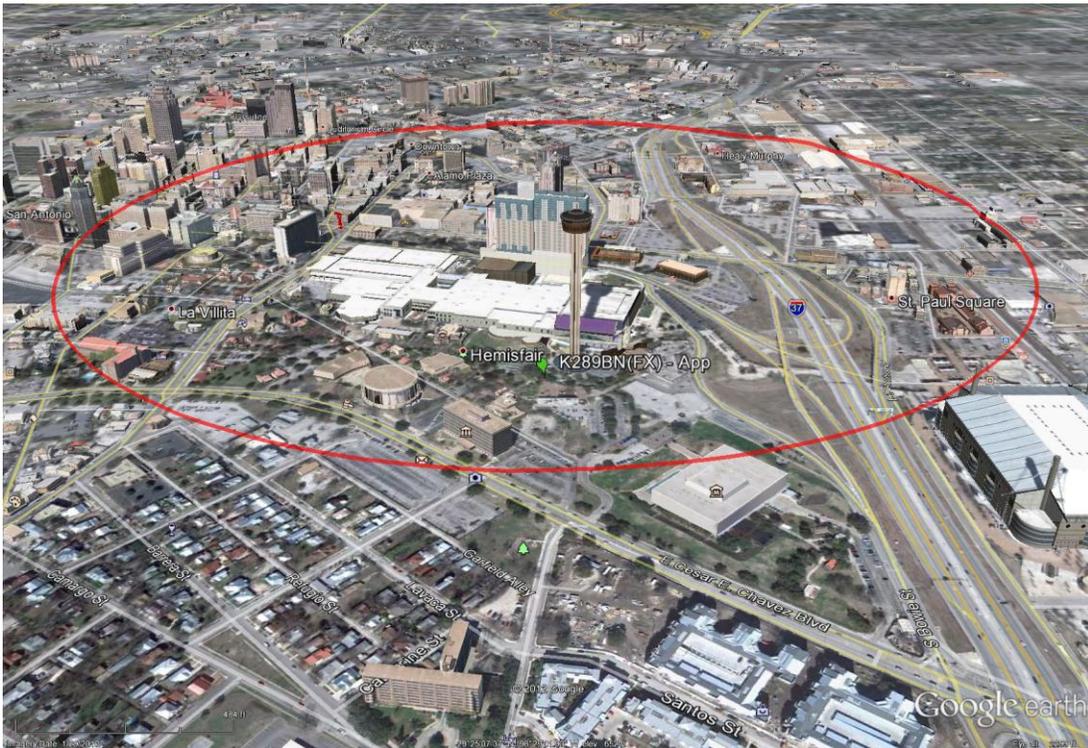
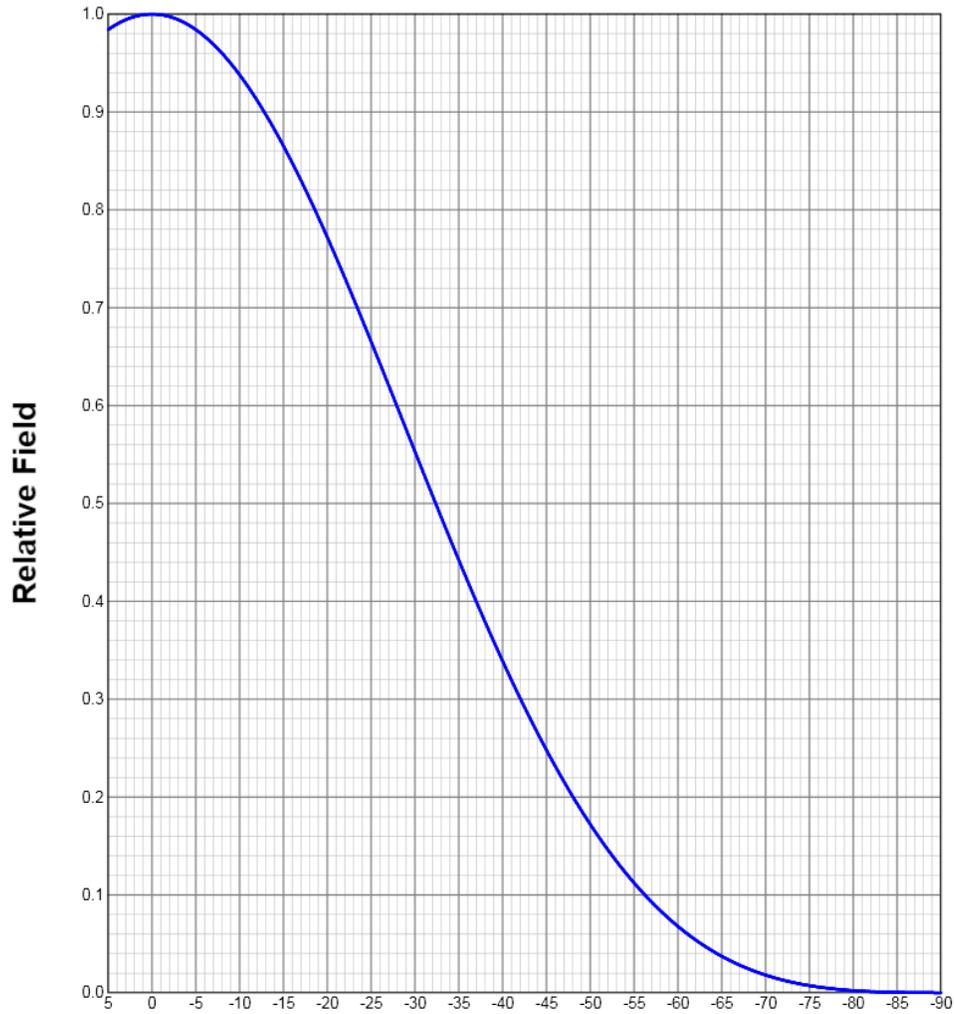


Figure 4. K292FF Licensed Site Living Way

ELEVATION PATTERN

Type:	LPX2H		Channel:	289
Directivity:	Numeric	dBd	Location:	Tower of Americas
Main Lobe:	0.70	-1.54	Beam Tilt:	0.00
Horizontal:	0.70	-1.54	Polarization:	Circular



Preliminary, subject to final design and review.

Figure 5 Distance to Contour With Antenna Vertical Pattern

Proposed Antenna:		ERI LPX 2 bay half wave							
Proposed Power:		0.145	kW					Fill in "yellow" cells	
Antenna Height AGL:		186	meters						
Interference Contour:		105.3	dBu f(50:10)						
Artificial Rcv Antenna Height:		57	meters						
Distance (Free Space) Equation:		$=(10^{((106.92-[desired\ dBu]+[ERP\ in\ dBk])/20)}) * 1000$							
Field Strength (dBu) Equation:		$"=106.92-(20*(LOG10[DistMeters]/1000)))+[ERP\ in\ dBk]$							
Depression				Distance					
Angle	Antenna			from Ant.	Distance	Field Strength	Distance	Field Strength	
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	0.145	-8.39	458.86 m	infinite	---	infinite	---	
-5°	0.984	0.140	-8.53	451.52 m	1480.11 m	94.99 dBu	2134.11 m	91.81 dBu	
-10°	0.938	0.128	-8.94	430.41 m	742.88 m	100.56 dBu	1071.13 m	97.38 dBu	
-15°	0.865	0.108	-9.65	396.92 m	498.42 m	103.32 dBu	718.65 m	100.14 dBu	
-20°	0.772	0.086	-10.63	354.24 m	377.17 m	104.76 dBu	543.83 m	101.58 dBu	
-25°	0.665	0.064	-11.93	305.14 m	305.24 m	105.30 dBu	440.11 m	102.12 dBu	
-30°	0.553	0.044	-13.53	253.75 m	258.00 m	105.16 dBu	372.00 m	101.98 dBu	
-35°	0.431	0.027	-15.70	197.77 m	224.90 m	104.18 dBu	324.28 m	101.00 dBu	
-40°	0.339	0.017	-17.78	155.55 m	200.69 m	103.09 dBu	289.36 m	99.91 dBu	
-45°	0.248	0.009	-20.50	113.80 m	182.43 m	101.20 dBu	263.04 m	98.02 dBu	
-50°	0.172	0.004	-23.68	78.92 m	168.40 m	98.72 dBu	242.81 m	95.54 dBu	
-55°	0.112	0.002	-27.40	51.39 m	157.48 m	95.57 dBu	227.06 m	92.40 dBu	
-60°	0.068	0.001	-31.74	31.20 m	148.96 m	91.72 dBu	214.77 m	88.54 dBu	
-65°	0.037	0.000	-37.02	16.98 m	142.34 m	86.83 dBu	205.23 m	83.65 dBu	
-70°	0.018	0.000	-43.28	8.26 m	137.28 m	80.89 dBu	197.94 m	77.71 dBu	
-75°	0.007	0.000	-51.48	3.21 m	133.55 m	72.92 dBu	192.56 m	69.74 dBu	
-80°	0.002	0.000	-62.37	0.92 m	130.99 m	62.21 dBu	188.87 m	59.03 dBu	
-85°	0.001	0.000	-68.39	0.46 m	129.49 m	56.29 dBu	186.71 m	53.11 dBu	
-90°	0.000	0.000	-88.39	0.05 m	129.00 m	36.32 dBu	186.00 m	33.14 dBu	

Figure 6. Path Profile of K292FF to Area of Hyatt Hotel

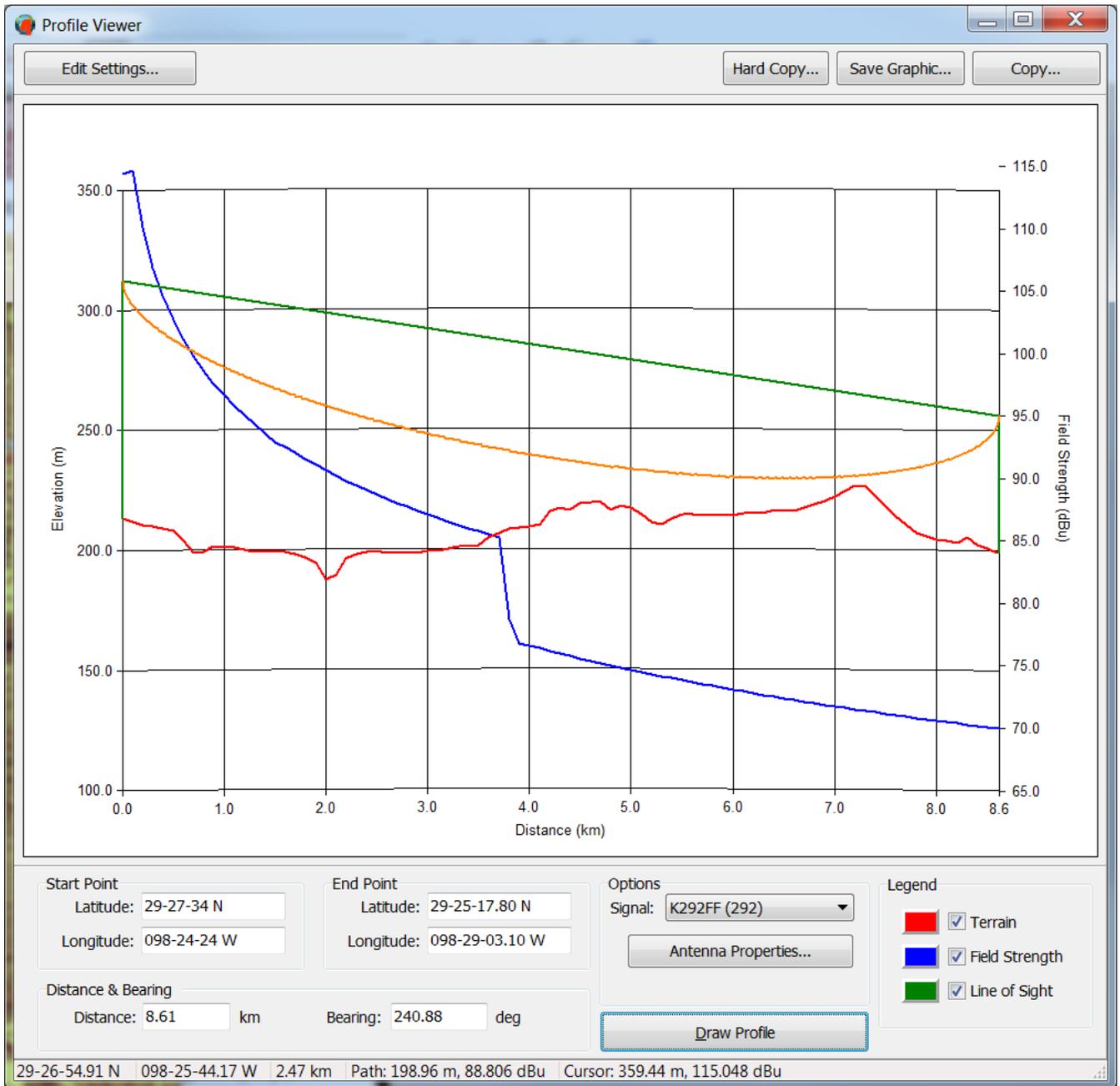


Figure 7.

Longley-Rice	
Receiver Height AG: m	Signal Strength: dBu
9.1	63.38
12	65.43
25	69.97
50	69.97
100	69.97
130	69.97

Figure 8a

9.1 Meter Signal Value Calculation

Point Information Report

Latitude: 29-25-17.80 N
Longitude: 098-29-03.10 W
Signal Strength: 63.376 dBu
Elevation: 199.0 m
Distance From Transmitter: 8.612 km
Azimuth From Transmitter: 240.88 degrees
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No

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Study Information:

Coverage Study
Signal Resolution: 0.1 km
Land cover attenuation was used.
Study Date: 3/6/2012
FM Data Date: 2/29/2012
TV Data Date: 11/4/2010
Land Cover Attenuations
Database: Global 1km Land Cover Data
Unknown: 0.0 dB
Open Land: 2.0 dB
Agricultural: 2.5 dB
Water Body: 0.0 dB
Forest: 5.5 dB
Wetland: 2.0 dB
Urban: 10.0 dB
Snow/Ice: 0.0 dB
Primary Terrain: NED 30 Meter Terrain
Secondary Terrain: NED 3 Second US Terrain
Coordinate System: NAD27

Call Sign Area Of Calculation

K292FF (292) Circle: R = 15 km

Transmitters:
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No
Propagation Model: Longley/Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Figure 8b

12 Meter Signal Value Calculation

Point Information Report

Latitude: 29-25-17.80 N
Longitude: 098-29-03.10 W
Signal Strength: 65.427 dBu
Elevation: 199.0 m
Distance From Transmitter: 8.612 km
Azimuth From Transmitter: 240.88 degrees
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No

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Study Information:

Coverage Study
Signal Resolution: 0.1 km
Land cover attenuation was used.
Study Date: 3/6/2012
FM Data Date: 2/29/2012
TV Data Date: 11/4/2010
Land Cover Attenuations
Database: Global 1km Land Cover Data
Unknown: 0.0 dB
Open Land: 2.0 dB
Agricultural: 2.5 dB
Water Body: 0.0 dB
Forest: 5.5 dB
Wetland: 2.0 dB
Urban: 10.0 dB
Snow/Ice: 0.0 dB
Primary Terrain: NED 30 Meter Terrain
Secondary Terrain: NED 3 Second US Terrain
Coordinate System: NAD27

Call Sign Area Of Calculation

K292FF (292) Circle: R = 15 km

Transmitters:
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No
Propagation Model: Longley/Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 12.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Figure 8c

25 Meter Signal Value Calculation

Point Information Report

Latitude: 29-25-17.80 N
Longitude: 098-29-03.10 W
Signal Strength: 69.971 dBu
Elevation: 199.0 m
Distance From Transmitter: 8.612 km
Azimuth From Transmitter: 240.88 degrees
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No

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Study Information:

Coverage Study
Signal Resolution: 0.1 km
Land cover attenuation was used.
Study Date: 3/6/2012
FM Data Date: 2/29/2012
TV Data Date: 11/4/2010
Land Cover Attenuations
Database: Global 1km Land Cover Data
Unknown: 0.0 dB
Open Land: 2.0 dB
Agricultural: 2.5 dB
Water Body: 0.0 dB
Forest: 5.5 dB
Wetland: 2.0 dB
Urban: 10.0 dB
Snow/Ice: 0.0 dB
Primary Terrain: NED 30 Meter Terrain
Secondary Terrain: NED 3 Second US Terrain
Coordinate System: NAD27

Call Sign Area Of Calculation

K292FF (292) Circle: R = 15 km

Transmitters:
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No
Propagation Model: Longley/Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 25.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Figure 8d

50 Meter Signal Value Calculation

Point Information Report

Latitude: 29-25-17.80 N
Longitude: 098-29-03.10 W
Signal Strength: 69.97 dBu
Elevation: 199.0 m
Distance From Transmitter: 8.612 km
Azimuth From Transmitter: 240.88 degrees
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No

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Study Information:

Coverage Study
Signal Resolution: 0.1 km
Land cover attenuation was used.
Study Date: 3/6/2012
FM Data Date: 2/29/2012
TV Data Date: 11/4/2010
Land Cover Attenuations
Database: Global 1km Land Cover Data
Unknown: 0.0 dB
Open Land: 2.0 dB
Agricultural: 2.5 dB
Water Body: 0.0 dB
Forest: 5.5 dB
Wetland: 2.0 dB
Urban: 10.0 dB
Snow/Ice: 0.0 dB
Primary Terrain: NED 30 Meter Terrain
Secondary Terrain: NED 3 Second US Terrain
Coordinate System: NAD27
Call Sign Area Of Calculation

K292FF (292) Circle: R = 15 km

Transmitter Information:

Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No
Propagation Model: Longley/Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 50.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Figure 8e

100 Meter Signal Value Calculation

Point Information Report

Latitude: 29-25-17.80 N
Longitude: 098-29-03.10 W
Signal Strength: 69.97 dBu
Elevation: 199.0 m
Distance From Transmitter: 8.612 km
Azimuth From Transmitter: 240.88 degrees
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No

+++++

Study Information:

Coverage Study
Signal Resolution: 0.1 km
Land cover attenuation was used.
Study Date: 3/6/2012
FM Data Date: 2/29/2012
TV Data Date: 11/4/2010
Land Cover Attenuations
Database: Global 1km Land Cover Data
Unknown: 0.0 dB
Open Land: 2.0 dB
Agricultural: 2.5 dB
Water Body: 0.0 dB
Forest: 5.5 dB
Wetland: 2.0 dB
Urban: 10.0 dB
Snow/Ice: 0.0 dB
Primary Terrain: NED 30 Meter Terrain
Secondary Terrain: NED 3 Second US Terrain
Coordinate System: NAD27
Call Sign Area Of Calculation

K292FF (292) Circle: R = 15 km

Transmitter Information:
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No
Propagation Model: Longley/Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 100.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Figure 8f

130 Meter Signal Value Calculation

Point Information Report

Latitude: 29-25-17.80 N
Longitude: 098-29-03.10 W
Signal Strength: 69.97 dBu
Elevation: 199.0 m
Distance From Transmitter: 8.612 km
Azimuth From Transmitter: 240.88 degrees
Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No

+++++

Study Information:

Coverage Study
Signal Resolution: 0.1 km
Land cover attenuation was used.
Study Date: 3/6/2012
FM Data Date: 2/29/2012
TV Data Date: 11/4/2010
Land Cover Attenuations
Database: Global 1km Land Cover Data
Unknown: 0.0 dB
Open Land: 2.0 dB
Agricultural: 2.5 dB
Water Body: 0.0 dB
Forest: 5.5 dB
Wetland: 2.0 dB
Urban: 10.0 dB
Snow/Ice: 0.0 dB
Primary Terrain: NED 30 Meter Terrain
Secondary Terrain: NED 3 Second US Terrain
Coordinate System: NAD27
Call Sign Area Of Calculation

K292FF (292) Circle: R = 15 km

Transmitter Information:

Call Letters: K292FF
File Number: BLFT20070329ADQ
Latitude: 29-27-34 N
Longitude: 098-24-24 W
ERP: 0.15 kW
Channel: 292
Frequency: 106.3 MHz
AMSL Height: 310.0 m
Elevation: 211.0 m
HAAT: 96.6 m
Horiz. Antenna Pattern: Directional
Vert. Elevation Pattern: No
Propagation Model: Longley/Rice
Climate: Continental temperate
Conductivity: 0.0050
Dielectric Constant: 15.0
Refractivity: 311.0
Receiver Height AG: 130.0 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Situation Variability: 50.0%
ITM Mode: Broadcast

Figure 9 Translator to Hyatt

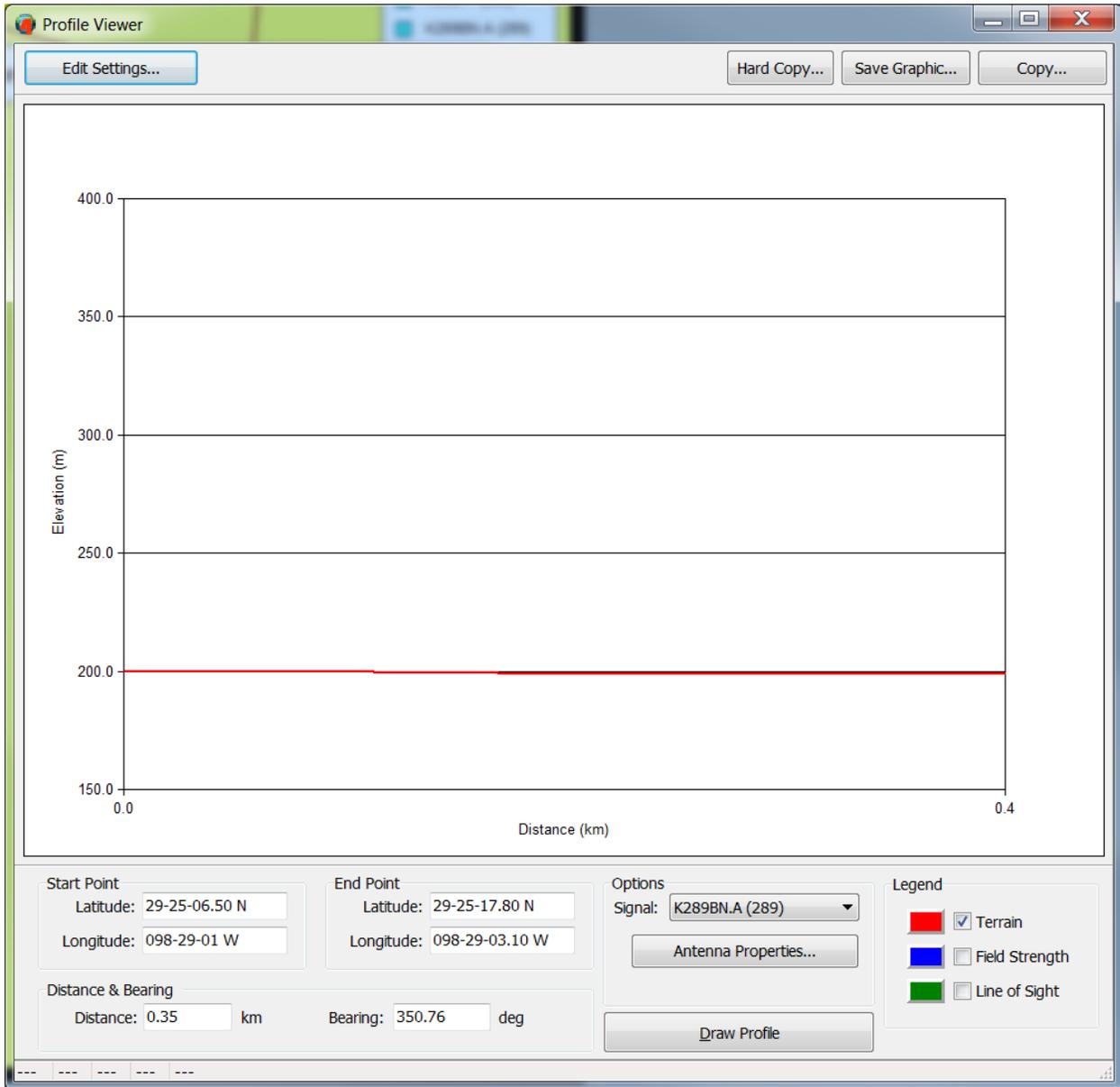


Figure 10. Contour and County Map

