K276EL Comprehensive Engineering Exhibit
June 2011

K276EL is seeking relocation to a tower identified by ASR 1013180, where it is proposed to utilize a custom directional antenna at a location 335 meters above ground level.

The facility will be utilized as a "fill-in" translator for primary station KVET(AM). The 60 dBu service contour of the proposed facility is within the 25 mile limit and the 2 mV/m contour of the primary station, as demonstrated in Figure 1.

The 60 dBu contour of the facility as proposed overlaps that of the existing facility, as is required for filing a minor modification application, and is demonstrated in Figure 1.

Attached as Figure 2 is an allocation spacing report wherein it can be seen that the proposed location is within the protected contour of closely located 2nd adjacent K274AX, and the more distant 2nd adjacent KBPA.

In Figure 3 it can be seen that KBPA presents a 82.0 dBu contour in the area of the proposed location, which will require a signal of 122.0 dBu to create interference. From Figure 4 it can be determined that the signal produced by this proposal will not reach that level near the surface and does not reach any habitable locations, thus this proposal complies with "Living Way", and a request for waiver as needed is hereby made.

As this proposal and 2nd adjacent K274AX are located on adjacent towers less than 200 meters apart, and the proposed antenna location is higher than the current or proposed antenna for K274AX, the proposed signal will not create prohibited interference as Figures 5 and 6 demonstrate. Thus this proposal complies with "Living Way", and a request for waiver as needed is hereby made.

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 Scala vertical polarity composite antenna array located 335 meters above ground. For purposes of this analysis the FM Model program has been set to calculate values for a "worst case" Ring-Stub antenna element, operated with an effective radiated power of 0.250 Kilowatts in the vertical plane. At 2 meters above the surface, at 182 meters from the base of the tower, this proposal will contribute worst case, 0.07 microwatts per square centimeter, or 0.007 percent of the allowable ANSI limit for controlled exposure, and 0.035 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.

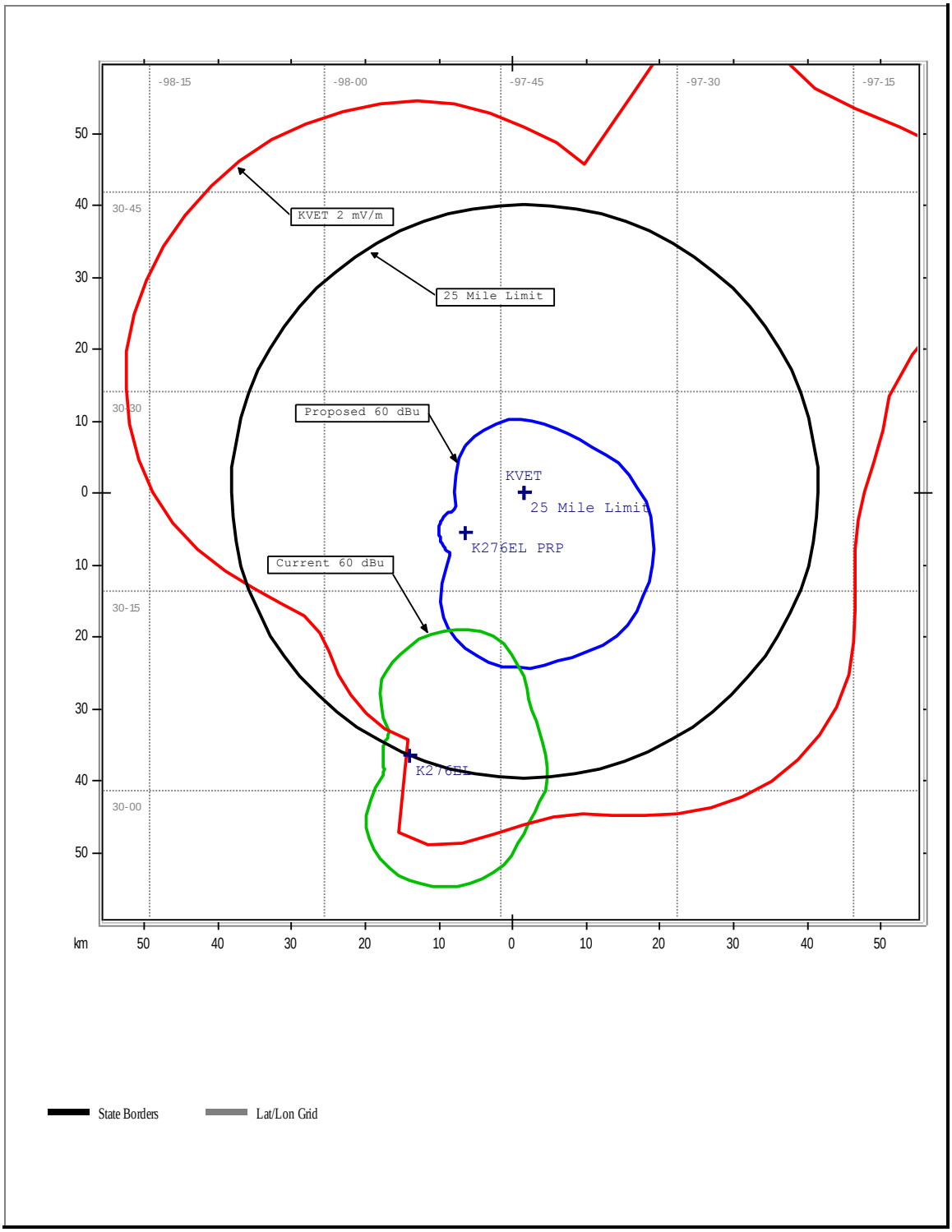

-98-15
-98-00
-97-45
-97-30
-97-15
30-45
30-30
30-15
30-00
KVET 2 mV/m
25 Mile Limit
Proposed 60 dBu
Current 60 dBu
KVET
25 Mile Limit
K276EL PRP
K276EL
km
50
40
30
20
10
0
10
20
30
40
50
State Borders
Lat/Lon Grid

Figure 2. Spacing Study

ComStudy 2.2 search of channel 276 (103.1 MHz Class D) at 30-19-23.1 N, 97-47-58.5 W.								
Callsign	Chanl	ERP_w	Cls	Status	Dist_km	Sep	Clr	Notes
K274AX	274	250	D	CP MOD	0.15	0	-60.90 dB	Living Way
K274AX	274	240	D	APP	0.15	0	-60.72 dB	Living Way
K274AX	274	75	D	LIC	0.2	0	-55.63 dB	Living Way
KBPA	278	96000	C0	LIC	31.8	0	-22.30 dB	Living Way
KXXS	223	3000	A	APP	0.01	10	-10	Not yet Authorized
KSSM	276	8600	C3	LIC	85.69	0	0.34 dB	Clear
NEW	222	3	D	APP	0.2	0	0.2	Clear
KXXS	223	0	A	RSV	9.76	10	-0.2	Not yet Authorized
NEW	222	150	D	APP	3.06	0	3.1	Clear
DK274BB	275	170	D	APP	59	0	2.64 dB	Clear
KDRP-LP	276	5	LP100	LIC	30	24	5.17 dB	Clear
NEW	223	20	D	APP	6.19	0	6.2	Clear
KVJM	276	5000	A	LIC	136.76	0	11.51 dB	Clear
KHHL	276	34000	C2	LIC	145.8	0	9.47 dB	Clear
NEW	222	125	D	APP	12.81	0	12.8	Clear
NEW	223	10	D	APP	13.29	0	13.3	Clear
NEW	222	250	D	APP	14.15	0	14.2	Clear

Figure 3. Contour From Antenna

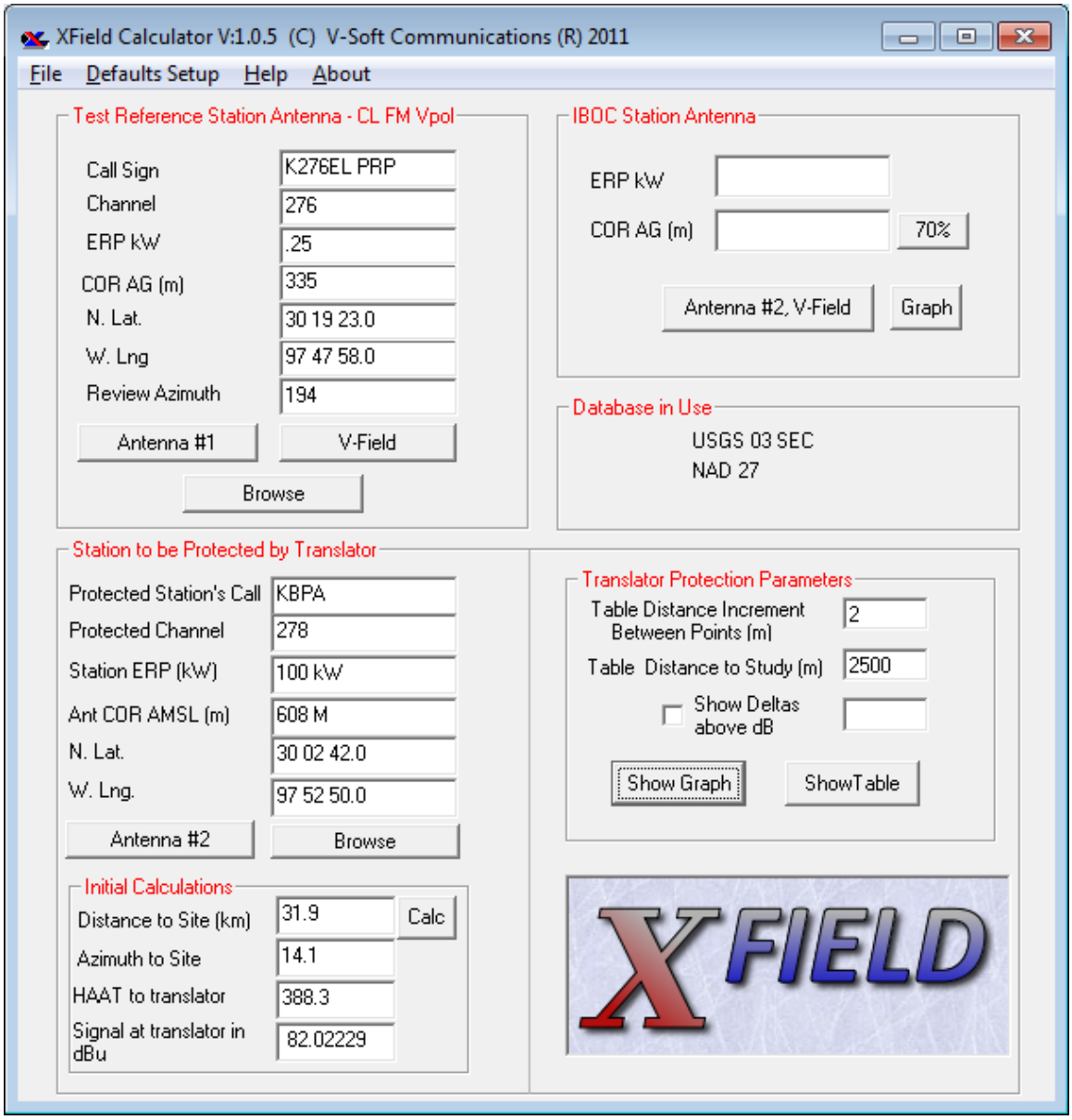


Figure 6. Signal Level Comparison

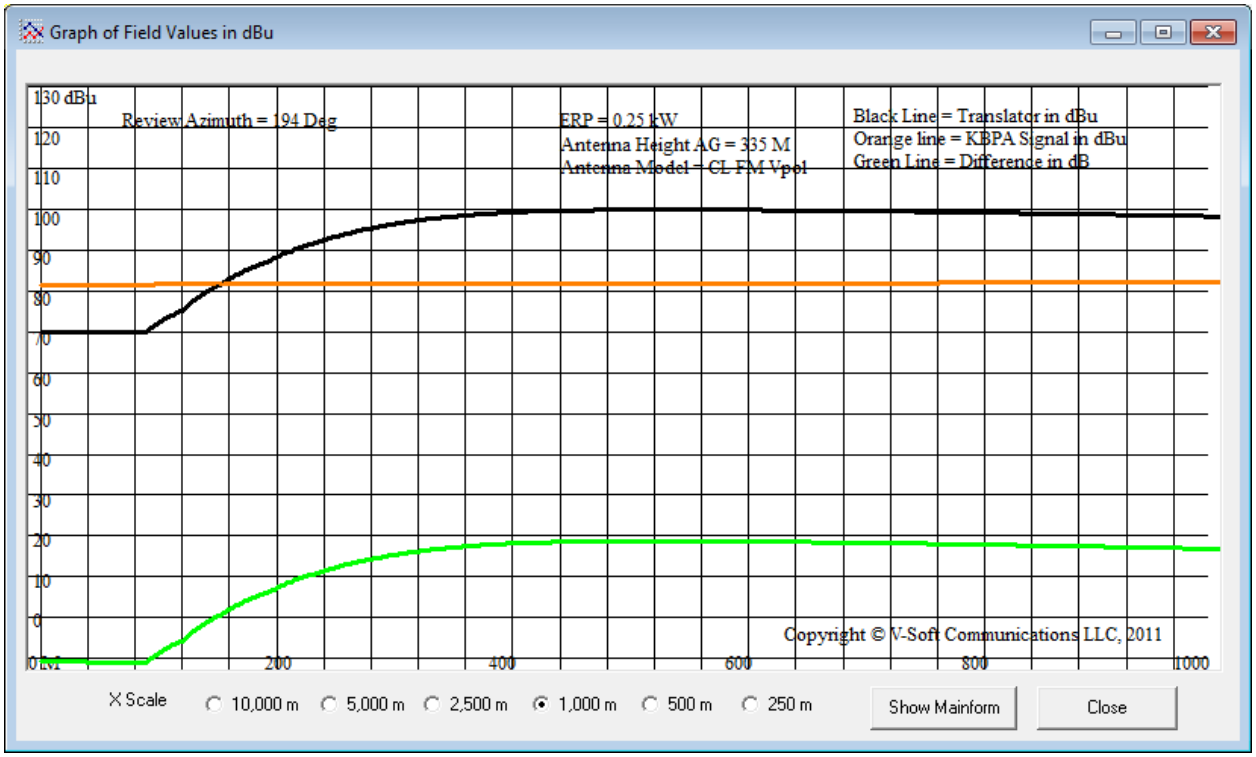
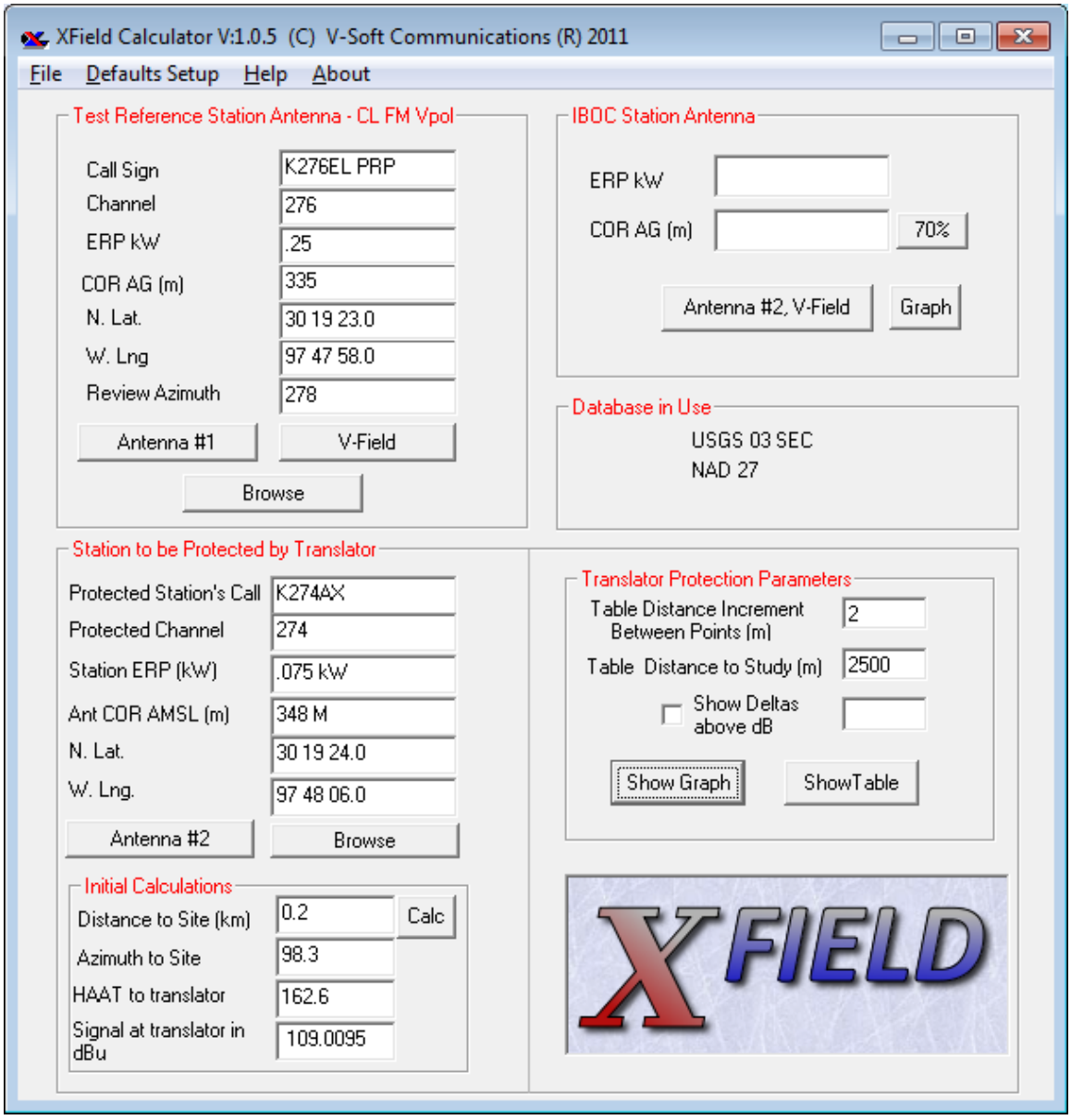


Figure 5. Contour From Antenna



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