

Ex. A.

Frequency Displacement Relief Application

T.V. Translator Station K57AW

Deming New Mexico

Ch. 35 zero offset .100 K.W.

Proposed Facilities

Station K57AW proposes to keep the same type antenna and the same orientation as now. The antenna array will be at the same location on the tower as the current antenna and operate on channel 35 with a zero offset. It is proposed to feed the antenna with the same transmission line of Andrew LDF7-50 with a length of 12.2 meters. The efficiency of the line is .947. There will be no change in the city of license, transmitter site or RCAMSL.

NTSC Allocation Considerations

A study has been conducted using provisions of Sections 74.705, 74.707 and 74.709 to assure that the proposal will not create prohibited interference with other existing or authorized NTSC full power or LPTV stations. Interference is predicted towards K36GA on Jack's Peak New Mexico. This short condition should cause no problems due to terrain shielding at Lordsburg New Mexico which is fed by K36GA. KOB Television the license holder for K36GA has signed a waiver letter and KRQE T.V. will take all steps to correct the problem should any interference occur. Interference is also predicted towards our displacement channel K34FU at Arrey & Derry New Mexico. Due to terrain and use of directional antennas there should be no problem. We will take all steps to correct any interference.

DTV Allocation Considerations

The proposed operation should not cause interference to any actual DTV facilities.

Environmental Considerations

The proposed K57AW facilities were evaluated in terms of potential radio frequency radiation (RFR) exposure at ground level at the base of the tower in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation. The proposal will comply with the new RF emission rules. As this is a multi-user site, procedures will be in effect to assure worker safety with respect to radio frequency radiation

Ex. A1

exposure. In addition, it appears that the existing structure is otherwise excluded from environmental processing as it complies with all the criteria for such an exclusion in section 1.136.

Ex. A₂



PH.: 505.243.2285

FAX: 505.248.1464

August 7, 2001

KOB T.V. does not object to the displacement application to channel 35 at Deming New Mexico. Interference is predicated towards KOB's site at Jack's Peak on K36GA. This should not cause interference in Lordsburg N.M. as the attached terrain profile shows. K36GA feeds its signal into Lordsburg.

If any interference should occur, KRQE will work with KOB and at KRQE's expense correct the interference.

KOB T.V. *Wayne* RF Systems Supervisor

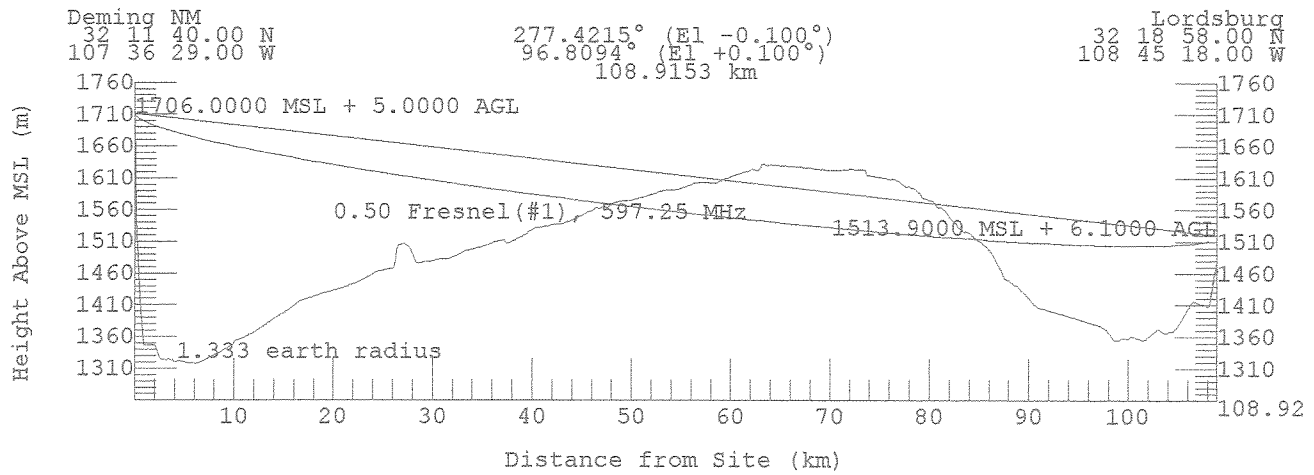
KRQE T.V. *Steve Laughlin* Engineering Manager, R.F.

K R Q E - T V

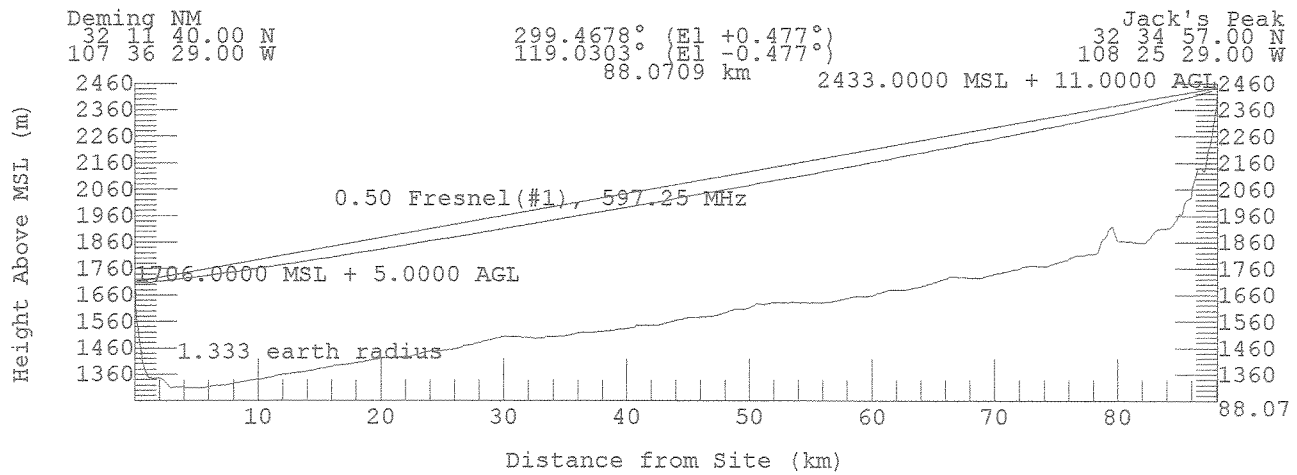
13 BROADCAST PLAZA SW
ALBUQUERQUE, NM 87104

SPIRIT OF THE SOUTHWEST

Ex. A3



Ex. A4



Ex. B



PH.: 505.243.2285

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The following antenna tabulations and calculated E.R.P.'s toward the Mexican border showing azimuths 110 to 250 degrees, with the directional antenna 4DR-16S On the 300 degree azimuth.

K R Q E - T V

13 BROADCAST PLAZA SW
ALBUQUERQUE NM 87104

SPIRIT OF THE SOUTHWEST

Ex. B₁

Antenna: 4DR-16Sarray

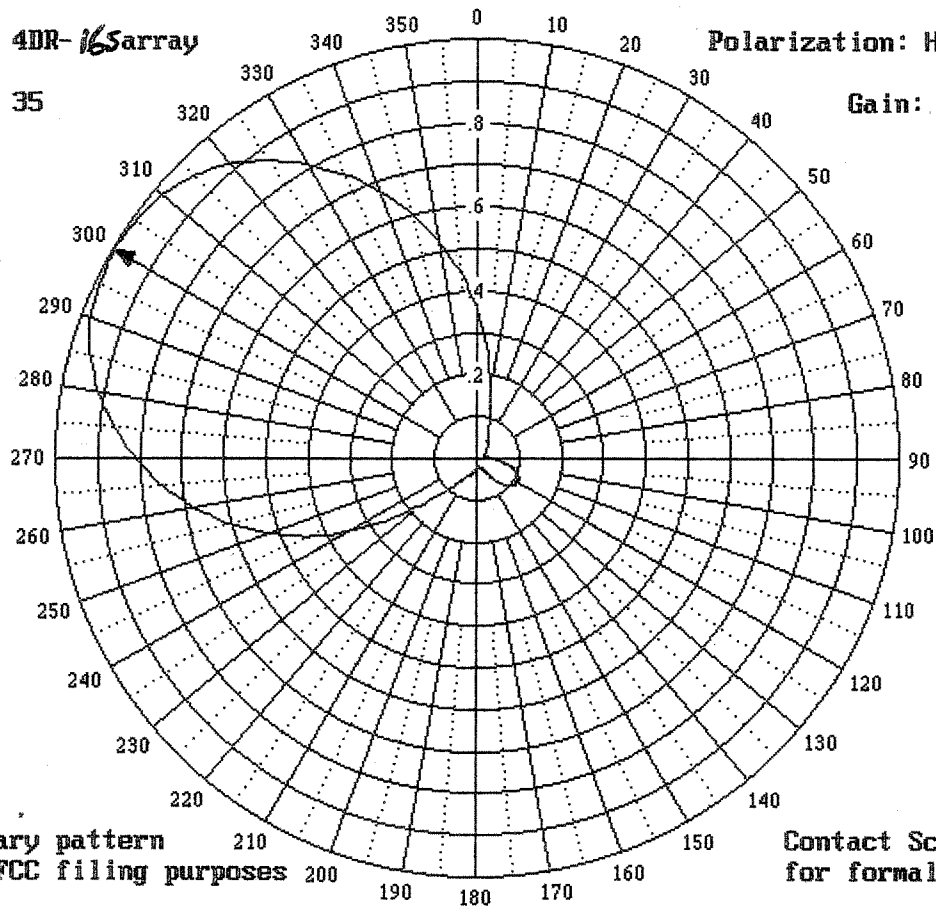
Channel: 35

Polarization: Horizontal

Gain: 14.5 dBd

Markers

300
300
300
300



Preliminary pattern
Not for FCC filing purposes

Contact Scala
for formal document

Ex. B₂

Antenna: 4DR-16S array

08-02-2001

Channel: 35

Polarization: Horizontal

Azimuth	Field	Rel.dB	dBd	Pwr Gain
0	0.350	-9.1	5.4	3.467
5	0.262	-11.6	2.9	1.950
10	0.175	-15.1	-0.7	0.851
15	0.123	-18.2	-3.8	0.417
20	0.087	-21.2	-6.7	0.214
25	0.065	-23.7	-9.3	0.117
30	0.050	-26.0	-11.6	0.069
35	0.045	-26.9	-12.5	0.056
40	0.043	-27.4	-13.0	0.050
45	0.035	-29.1	-14.6	0.035
50	0.030	-30.5	-16.0	0.025
55	0.027	-31.2	-16.7	0.021
60	0.025	-32.0	-17.6	0.017
65	0.020	-34.0	-19.5	0.011
70	0.020	-34.0	-19.5	0.011
75	0.020	-34.0	-19.5	0.011
80	0.025	-32.0	-17.6	0.017
85	0.027	-31.2	-16.7	0.021
90	0.035	-29.1	-14.6	0.035
95	0.047	-26.5	-12.0	0.063
100	0.067	-23.4	-8.9	0.129
105	0.087	-21.2	-6.7	0.214
110	0.102	-19.8	-5.3	0.295
115	0.110	-19.2	-4.7	0.339
120	0.110	-19.2	-4.7	0.339
125	0.110	-19.2	-4.7	0.339
130	0.102	-19.8	-5.3	0.295
135	0.087	-21.2	-6.7	0.214
140	0.067	-23.4	-8.9	0.129
145	0.047	-26.5	-12.0	0.063
150	0.035	-29.1	-14.6	0.035
155	0.027	-31.2	-16.7	0.021
160	0.025	-32.0	-17.6	0.017
165	0.020	-34.0	-19.5	0.011
170	0.020	-34.0	-19.5	0.011
175	0.020	-34.0	-19.5	0.011
180	0.025	-32.0	-17.6	0.017
185	0.027	-31.2	-16.7	0.021
190	0.030	-30.5	-16.0	0.025
195	0.035	-29.1	-14.6	0.035
200	0.043	-27.4	-13.0	0.050
205	0.045	-26.9	-12.5	0.056
210	0.050	-26.0	-11.6	0.069
215	0.065	-23.7	-9.3	0.117
220	0.087	-21.2	-6.7	0.214
225	0.123	-18.2	-3.8	0.417
230	0.175	-15.1	-0.7	0.851
235	0.262	-11.6	2.9	1.950
240	0.350	-9.1	5.4	3.467
245	0.440	-7.1	7.3	5.370

Ex. B3

Antenna: 4DR-165 array

08-02-2001

Channel: 35

Polarization: Horizontal

Azimuth	Field	Rel.dB	dBd	Pwr Gain
250	0.520	-5.7	8.8	7.586
255	0.603	-4.4	10.1	10.233
260	0.680	-3.3	11.1	12.882
265	0.750	-2.5	12.0	15.849
270	0.812	-1.8	12.7	18.621
275	0.867	-1.2	13.2	20.893
280	0.916	-0.8	13.7	23.442
285	0.952	-0.4	14.0	25.119
290	0.980	-0.2	14.3	26.915
295	0.990	-0.1	14.4	27.542
300	1.000	0.0	14.5	28.184
305	0.990	-0.1	14.4	27.542
310	0.980	-0.2	14.3	26.915
315	0.952	-0.4	14.0	25.119
320	0.916	-0.8	13.7	23.442
325	0.867	-1.2	13.2	20.893
330	0.812	-1.8	12.7	18.621
335	0.750	-2.5	12.0	15.849
340	0.680	-3.3	11.1	12.882
345	0.603	-4.4	10.1	10.233
350	0.520	-5.7	8.8	7.586
355	0.440	-7.1	7.3	5.370

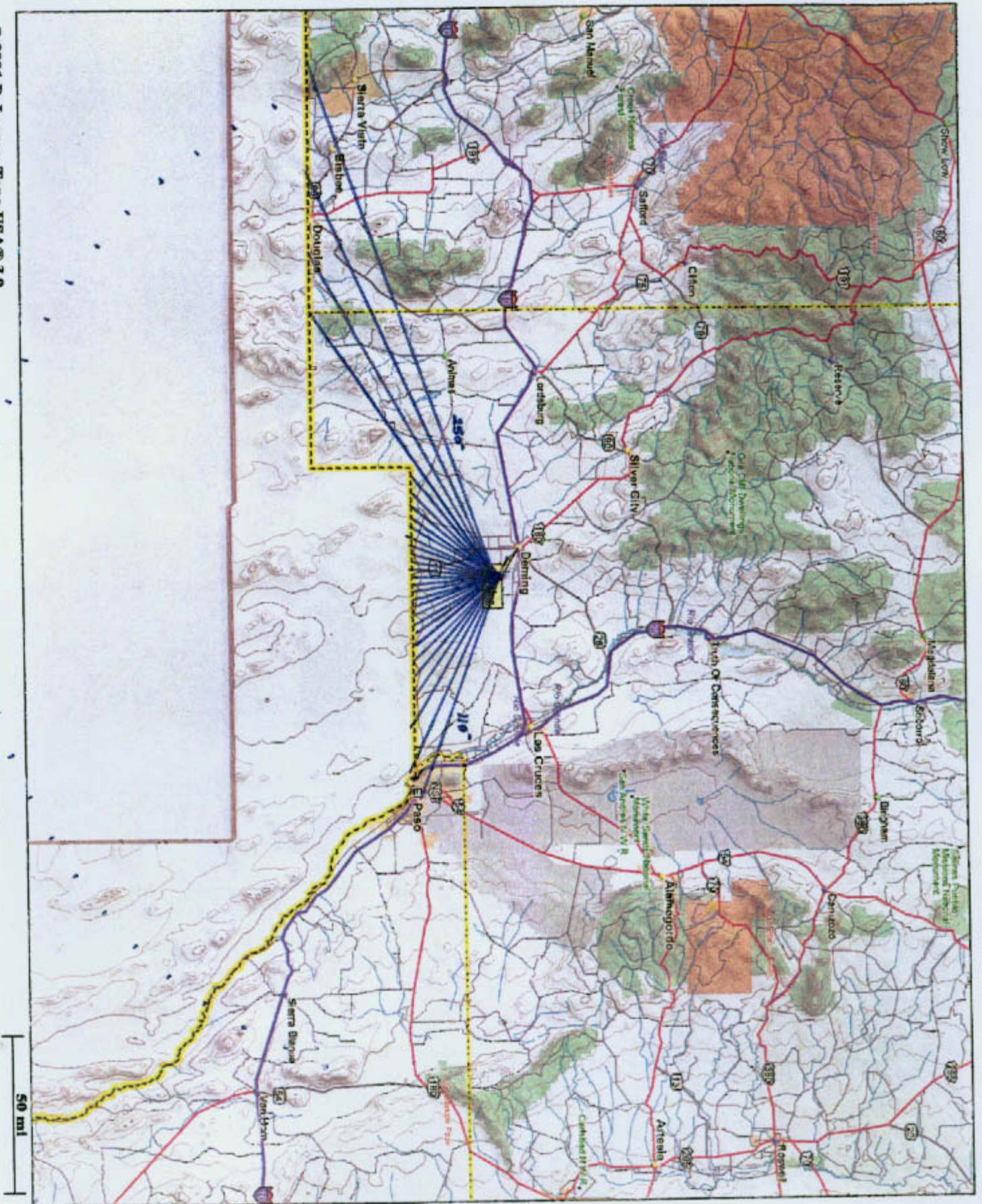
Ex. B₄

E.R.P. towards the border with Mexico on azimuths 110 degree to 250 degree. Antenna type 4DR-16S on the 300 degree azimuth.

110 deg.	25.1 watts	
115 deg.	32.1 watts	
120 deg.	32.1 watts	
125 deg.	32.1 watts	
130 deg.	25.1 watts	
135 deg.	20.3 watts	
140 deg.	12.2 watts	
145 deg.	6.0 watts	
150 deg.	3.3 watts	
155 deg.	2.0 watts	
160 deg.	1.6 watts	
165 deg.	1.0 watts	
170 deg.	1.0 watts	
175 deg.	1.0 watts	
180 deg.	1.6 watts	
185 deg.	2.0 watts	
190 deg.	2.4 watts	
195 deg.	3.3 watts	
200 deg.	4.7 watts	
205 deg.	5.3 watts	
210 deg.	6.5 watts	
215 deg.	11.1 watts	
220 deg.	20.3 watts	
225 deg.	39.5 watts	
230 deg.	80.6 watts	On this azimuth it is 40 miles to the border. 65km
235 deg.	184.7 watts	On this azimuth it is 100 miles to the border. 162.1km
240 deg.	328.3 watts	On this azimuth it is 115 miles to the border. 186.4km
245 deg.	508.5 watts	On this azimuth it is 137.6 miles to the border. 223km
250 deg.	718.4 watts	On this azimuth it is 170 miles to the border. 275km

Ex.B5

© 2001 DeLorme, Topo USA® 3.0
Scale: 1 : 2,600,000 Zoom Level: 6-3 Datum: WGS84 Map Rotation: 0° Magnetic Declination: 10.4°E



Ex. C



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The following contour plots and Longley Rice plot show the very low signal level at the border with Mexico and back towards Juarez. These levels are not useable and the potential for interference virtually non-existent.

K R Q E - T V

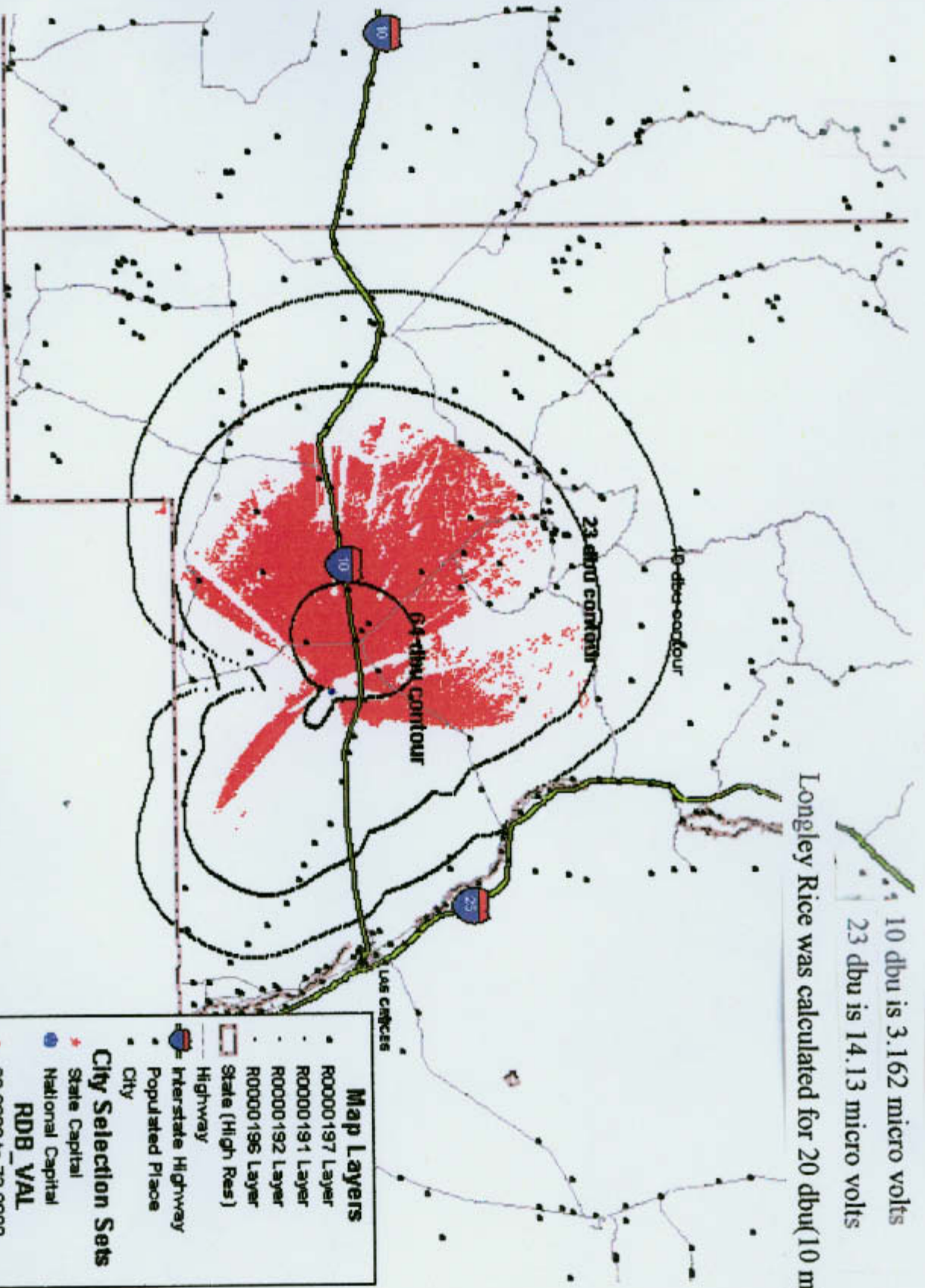
13 BROADCAST PLAZA SW
ALBUQUERQUE NM 87104

SPIRIT OF THE SOUTHWEST

Ex. C1

10 dbu is 3.162 micro volts
23 dbu is 14.13 micro volts

Longley Rice was calculated for 20 dbu(10 micro volts)



- R0000197 Layer
- R0000191 Layer
- R0000192 Layer
- R0000196 Layer
- State (High Res)

Map Layers

- Highway
- Interstate Highway
- Populated Place
- City

City Selection Sets

- State Capital
- National Capital

RDB_VAL

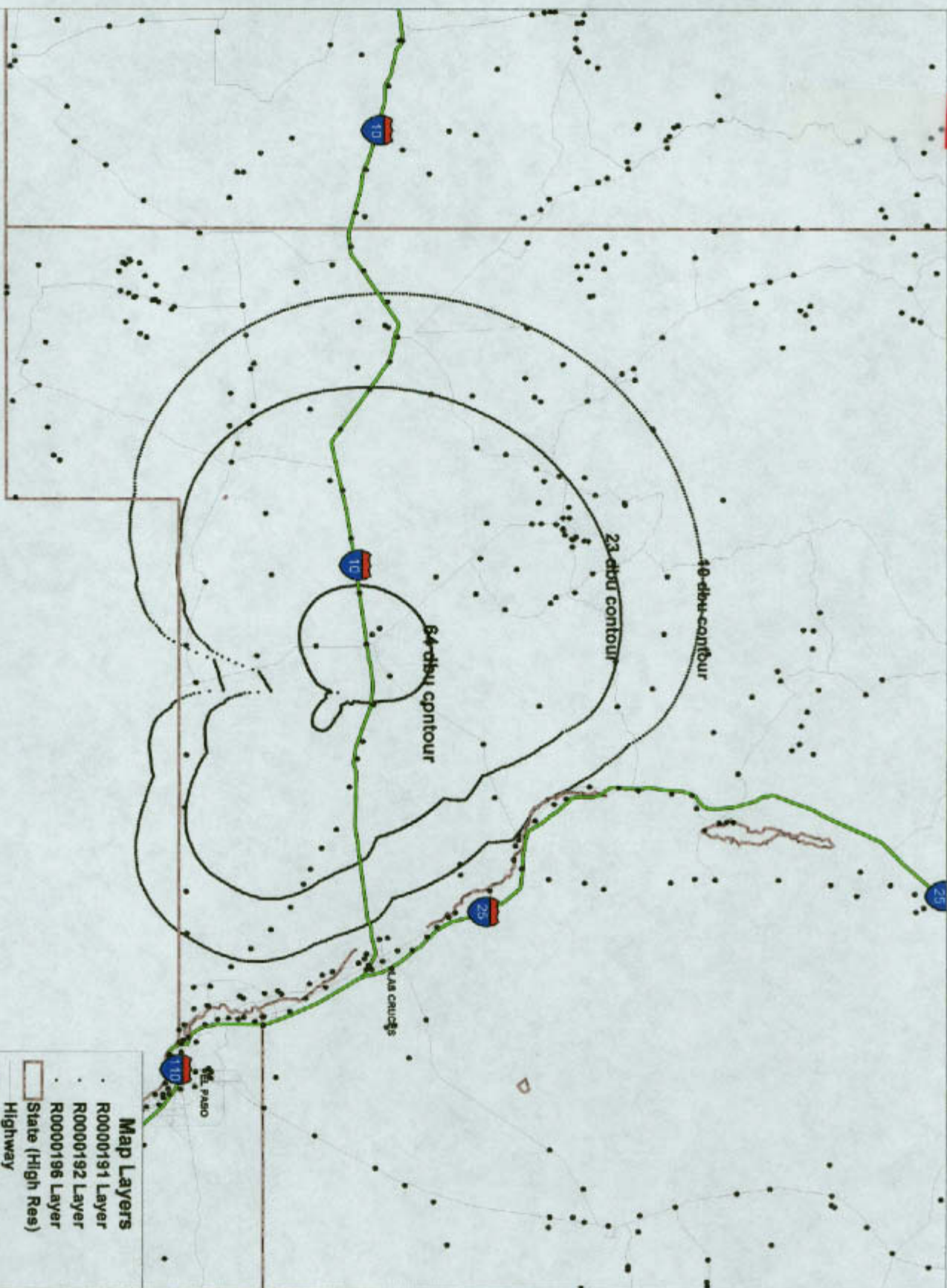
- 20,000 to 73,000
- Other

RDB_VAL

- 20,000 to 73,000
- Other

0 10 20 30 Miles

Ex.C2



Ex. D



PH.: 505.243.2285

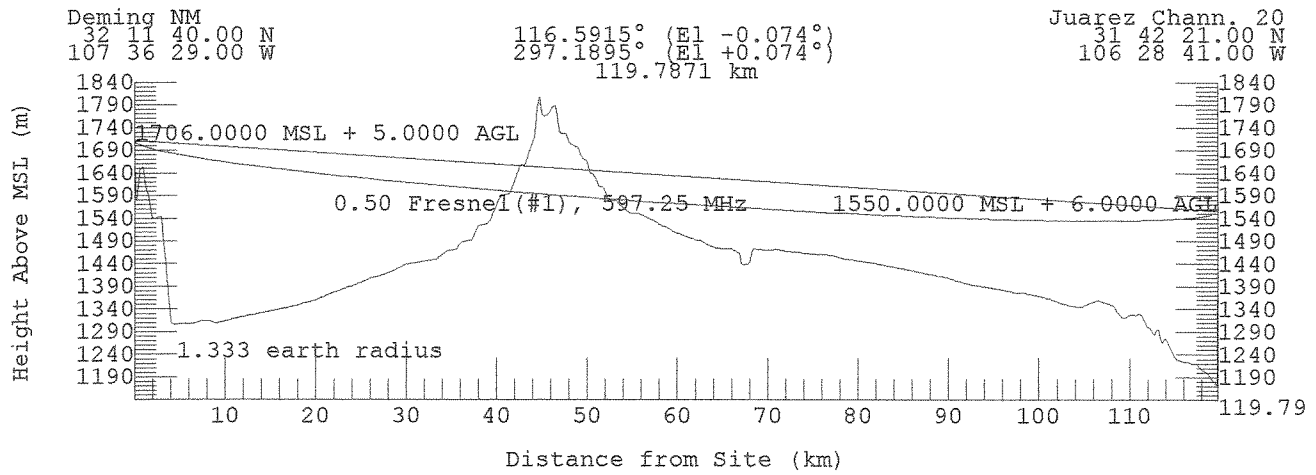
FAX: 505.248.1464

The following is a profile from the Deming K57AW site to towards Juarez Mexico. The tap program stops at the border. We did enter the Latitude and Longitude and estimated height of channel 20 in Juarez Mexico. This shows the blockage by the West Potrillo Mountains between the Deming site and Juarez Mexico.

K R Q E - T V

13 BROADCAST PLAZA SW
ALBUQUERQUE NM 87104

Ex.D1



Ex. E



PH.: 505.243.2285

FAX: 505.248.1464

This is a list of channels at the Deming site and I have included a list of El Paso and Juarez Mexico stations.

Deming. K51DS

K55BT

K60EH will be displaced to K43FU

K68DX will be displaced to K41FM

K57AW

To my knowledge there has been no case of interference to Juarez or El Paso stations from the translators at Deming. I believe this is due to the terrain and use of directional antennas at Deming.

K R Q E - T V

13 BROADCAST PLAZA SW
ALBUQUERQUE NM 87104

SPIRIT OF THE SOUTHWEST

EL PASO TX - LAS CRUCES NM - JUAREZ MEXICO TV STATION

2	54	60	NTSC	XEPM-TV 2 (TELEVISA) CD JUAREZ	37	608	614	NOT FOR TELEVISION BROADCASTING USE
3	60	66			38	614	620	NTSC KSCE-TV 38 (REG) EL PASO TX
4	66	72	NTSC	KDBC-TV 4 (CBS) EL PASO TX	39	620	626	DTV KSCE-TV 38 (REG) EL PASO TX
					40	626	632	
5	76	82	NTSC	XEJ-TV 5 CD JUAREZ	41	632	638	
6	82	88			42	638	644	
					43	644	650	
7	174	180	NTSC	KVIA-TV 7 (ABC) EL PASO TX	44	650	656	NTSC XHJ-TV 44 (IND) CD JUAREZ
8	180	186			45	656	662	DTV ?? XHJ-TV 44 CD JUAREZ
9	186	192	NTSC	KTSM-TV 9 (NBC) EL PASO TX	46	662	668	
10	192	198			47	668	674	DTV KMAZ-TV 48 EL PASO / LAS CRUCES
11	198	204	NTSC	XHCJE-TV 11 (AZTECA) CD JUAREZ	48	674	680	NTSC KMAZ-TV 48 (TELMUN) EL PASO TX
12	204	210			49	680	686	
13	210	216	NTSC	KCOS-TV 13 (PBS) EL PASO TX	50	686	692	DTV ?? XHJCI-TV 32 CD JUAREZ
					51	692	698	DTV KKBW-TV 65 (WB) EL PASO TX
14	470	476	NTSC	KFOX-TV 14 (FOX) EL PASO TX	52	698	704	
15	476	482	DTV	KFOX-TV 14 (FOX) EL PASO TX	53	704	710	
16	482	488	DTV	KTSM-TV 9 (NBC) EL PASO TX	54	710	716	
17	488	494	DTV	KVIA-TV 7 (ABC) EL PASO TX	55	716	722	
18	494	500	DTV	KDBC-TV 4 (CBS) EL PASO TX	56	722	728	NTSC XHJUB-TV 56 (???) CD JUAREZ
19	500	506			57	728	734	DTV ?? XHJUB-TV 56 CD JUAREZ
20	506	512	NTSC	XHCJH-TV 20 (AZTECA) CD JUAREZ	58	734	740	DTV ?? XHCJH-TV 20 CD JUAREZ
21	512	518			59	740	746	
22	518	524	NTSC	KRWG-TV 22 (PBS) LAS CRUCES NM	60	746	752	
23	524	530	DTV	KRWG-TV 22 (PBS) LAS CRUCES NM	61	752	758	
24	530	536			62	758	764	
25	536	542	DTV	KINT-TV 26 (UNI) EL PASO TX	63	764	770	
26	542	548	NTSC	KINT-TV 26 (UNIVISION) EL PASO TX	64	770	776	
27	548	554			65	776	782	NTSC KKWB-TV 65 (WB) EL PASO TX
28	554	560			66	782	788	
29	560	566	DTV	?? XEPM-TV 2 CD JUAREZ	67	788	764	
30	566	572	DTV	KCOS-TV 13 (PBS) EL PASO TX	68	764	800	
31	572	578			69	800	806	NTSC NEW K69IB SARA DIAZ WARREN
32	578	584	NTSC	XHJCI-TV 32 (TELEVISA) CD JUAREZ				
33	584	590						
34	590	596	DTV	?? XEJ-TV 5 CD JUAREZ				
35	596	602						
36	602	608	DTV	?? XHCJE-TV 11 CD JUAREZ				

ARROW INDICATES DEMING TRANSLATOR CHANNEL.