

Exhibit 6 - Statement A  
**NATURE OF THE PROPOSAL**  
**ALLOCATION CONSIDERATIONS**  
prepared for  
**Ramar Communications II, Ltd.**  
KTEL-LP Albuquerque, New Mexico  
Facility ID 55059  
Ch. 39 150 kW (DA-MAX)

*Ramar Communications II, Ltd.* (“Ramar”) is the licensee of Low Power Television (“LPTV”) station KTEL-LP, Channel 53, Albuquerque, New Mexico, Facility ID 55059 (BLTTL-19990203JB). The instant proposal would change KTEL-LP’s channel of operation, increase effective radiated power (“ERP”), and specify a new directional antenna pattern. No change in transmitter site is proposed, however revised site and antenna elevation data are included herein to correspond to that which has recently become available. The instant application qualifies as a “displacement” application per §73.3572(a)(4)(ii) of the Commission’s Rules, as KTEL-LP’s licensed operation on Channel 53 is between Channels 52 and 69.

The instant proposal specifies use of additional electrical beamtilt, involving a carefully specified vertical plane (elevation) antenna pattern, to permit a maximum effective radiated power (“ERP”) of 150 kW (towards the nearby populated areas of Albuquerque, well below the radio horizon), while limiting the ERP towards the radio horizon.

Specifically, the proposed KTEL-LP facility will employ an antenna system having 4 degrees of electrical beamtilt. A maximum ERP (at any horizontal and vertical angle) of 150 kW is proposed. Towards the radio horizon, the maximum ERP at any azimuth is 64.7 kW.

The proposed antenna is a Kathrein model 4X2 K723147 panel array. A summary of the horizontal plane pattern, effective antenna height, calculated depression angles<sup>1</sup> to the radio horizon, derivation of the effective (radio horizon) horizontal plane pattern, and the distances to the 74 dBμ contour are provided in **Exhibit 6 - Table 1**. **Exhibit 6 - Figure 1** supplies a plot of the antenna’s horizontal plane pattern within the main lobe (prior to considering radiation towards the radio horizon). A plot of the antenna’s horizontal plane radiation pattern towards the radio horizon is

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<sup>1</sup>The derivation of the depression angle to the radio horizon was made per §73.684(c)(1).

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supplied as **Exhibit 6 - Figure 2**. The maximum ERP towards the radio horizon at any azimuth is 64.7 kW. The directional antenna pattern as supplied in the “Tech Box” of the accompanying FCC Form 346 corresponds to the ERP towards the radio horizon (as expressed in **Exhibit 6 - Figure 2**).

The proposed transmitting antenna will side-mount on an existing tower structure, presently employed by the Channel 56 KTEL-LP facility. No change in overall structure height (24 meters AGL) is proposed. According to the Commission’s “TOWAIR” computer program, there are no landing areas within 8 km, so registration of the existing structure is not believed to be necessary.

**Allocation Details**

Due to the congested nature of the television spectrum in the Albuquerque, no channels are available which comply with all standard Commission allocation requirements. However, a search of the television spectrum has yielded Channel 39 as a suitable alternative channel, premised on the grant of a waiver of certain allocation requirements as discussed fully below.

In particular, the instant proposal complies with the standard requirements of §§74.705 - 74.708 of the FCC Rules with respect to all other facilities, except for the following:

<u>Call</u>	<u>Status</u>	<u>Ch.</u>	<u>File Number</u>	<u>City, State</u>
KTEL(TV)	PRM	25	BPRM-20030818AFN	Moriarty, NM
K17DD	APP	38	BPTTL-20030829ANU	Albuquerque, NM
K39EJ	Lic	39	BLTT-19970507JU	Espanola, NM
K39FY	Lic	39	BLTT-20020320ADH	Zuni, NM
K39EW	Lic	39	BLTT-20020422AAL	Gallup, NM
KSCE-DT	CP	39	BPEDT-20000426AAL	El Paso, TX
KLUZ-TV	Lic	41	BLCT-19980714KE	Albuquerque, NM

**OET Bulletin 69 Analysis**

Regarding interference protection to all facilities listed above, except for K39EJ, a detailed interference study was conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission’s Office of Engineering and Technology Bulletin

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number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, July 2, 1997 (“OET-69”)<sup>2</sup>. The interference study examined the change in interference as experienced by these stations that would result from the proposed facility. The results, summarized in the attached **Exhibit 6 - Table 2**, showed that the proposed operation will not cause any new interference to any of these stations in excess of the Commission’s 0.5 percent rounding tolerance.

**Protection to K17DD (App)**

Despite proposing a site within the protected contour of first-adjacent station LPTV station K17DD(App), the proposal does not exceed the undesired-to-desired protection criteria of §74.707(d)(4). Specifically, the proposed KTEL-LP facility’s ERP towards the radio horizon is less than 15 dB higher than that of K17DD(App) at any azimuth. The relationship between the ERP proposed herein and that of K17DD(App) (considering both facilities’ directional antenna patterns) is depicted in the attached **Exhibit 6 - Table 3**. Additionally, **Exhibit 6 - Figure 1** is a pattern plot which demonstrates compliance with the 15 dB undesired-to-desired criteria of §74.707. It is evident that the pattern proposed by *Ramar* is entirely encompassed within the undesired-to-desired limit to K17DD(App).

The KTEL-LP site is located only 0.03 km distant from K17DD(App). This virtual co-location, in combination with the proposed KTEL-LP directional antenna pattern, assures that the Commission’s undesired-to-desired limit will not be exceeded along any azimuth. Additionally, as shown in **Exhibit 6 - Table 2**, the OET Bulletin 69 detailed interference analysis shows that interference to K17DD (App) will not exceed the Commission’s 0.5 percent rounding tolerance.

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<sup>2</sup>The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A cell size of 1 km was employed. Comparisons of various results of this computer program (run on a Sun processor) to the Commission’s implementation of OET-69 show excellent correlation.

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**Protection to KLUZ-TV**

The KTEL-LP site is within 32 km of KLUZ-TV (Ch. 41, Albuquerque, NM) . The KLUZ-TV analog Channel 41 facility represents a “N-2” taboo relationship, and §74.705 requires that such stations be separated by a minimum of 32 km, owing to the proposed KTEL-LP ERP being greater than 50 kW. In this case, KLUZ-TV is 0.3 km from the proposed KTEL-LP, and will be essentially co-located.

The KLUZ-TV Channel 41 facility is two channels removed from that of the proposed Channel 39 KTEL-LP operation, and the minimum distance separation requirement of 32 km is primarily intended to avoid intermodulation interference. Any resulting intermodulation problem from the “N+/-2” relationship would be expected to affect reception of an NTSC station with the assignment of 2A minus B, where “A” represents either the KTEL-LP or KLUZ-TV channel number, and “B” would be the other station’s channel. Such interference (which occurs in an NTSC television receiver and is not emitted over the air) would be present only when both channel “A” and “B” signal levels are very high, and would occur in areas nearby the transmitter site.

In this case, N+/-2 intermodulation interference could impair reception of NTSC stations on Channels 37 and/or 43, only within the immediate area of Albuquerque. A search of the Commission’s database showed that there are no NTSC full service stations on either of these channels within 500 km. Thus, there are no potential “victim” stations to this intermodulation combination which provide useable service to the area near KTEL-LP. Additionally, as shown in **Exhibit 6 - Table 2**, the OET Bulletin 69 detailed interference analysis shows that no “crossmodulation” interference to KLUZ-TV will result.

**Protection to K39EJ**

K39EJ is licensed to operate with an offset of “none,” which requires use of the more restrictive -45 dB U/D as listed in §74.707(d)(1). *Ramar* intends to make the necessary arrangements with the licensee of K39EJ to change that station’s operation to include offset frequency operation.

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Once K39EJ's frequency is offset (either "minus" or "zero"), the standard -28 dB U/D requirement as specified in §74.707(d)(1) for offset facilities will be met by the instant proposal.

**Conclusion**

If a waiver of §§74.704 - 74.708 is required, then one is requested for the reasons described above on behalf of the applicant. Thus, as described above, interference protection as required will be provided to primary TV, digital TV, Low Power TV, TV translator stations, and Class A television stations.

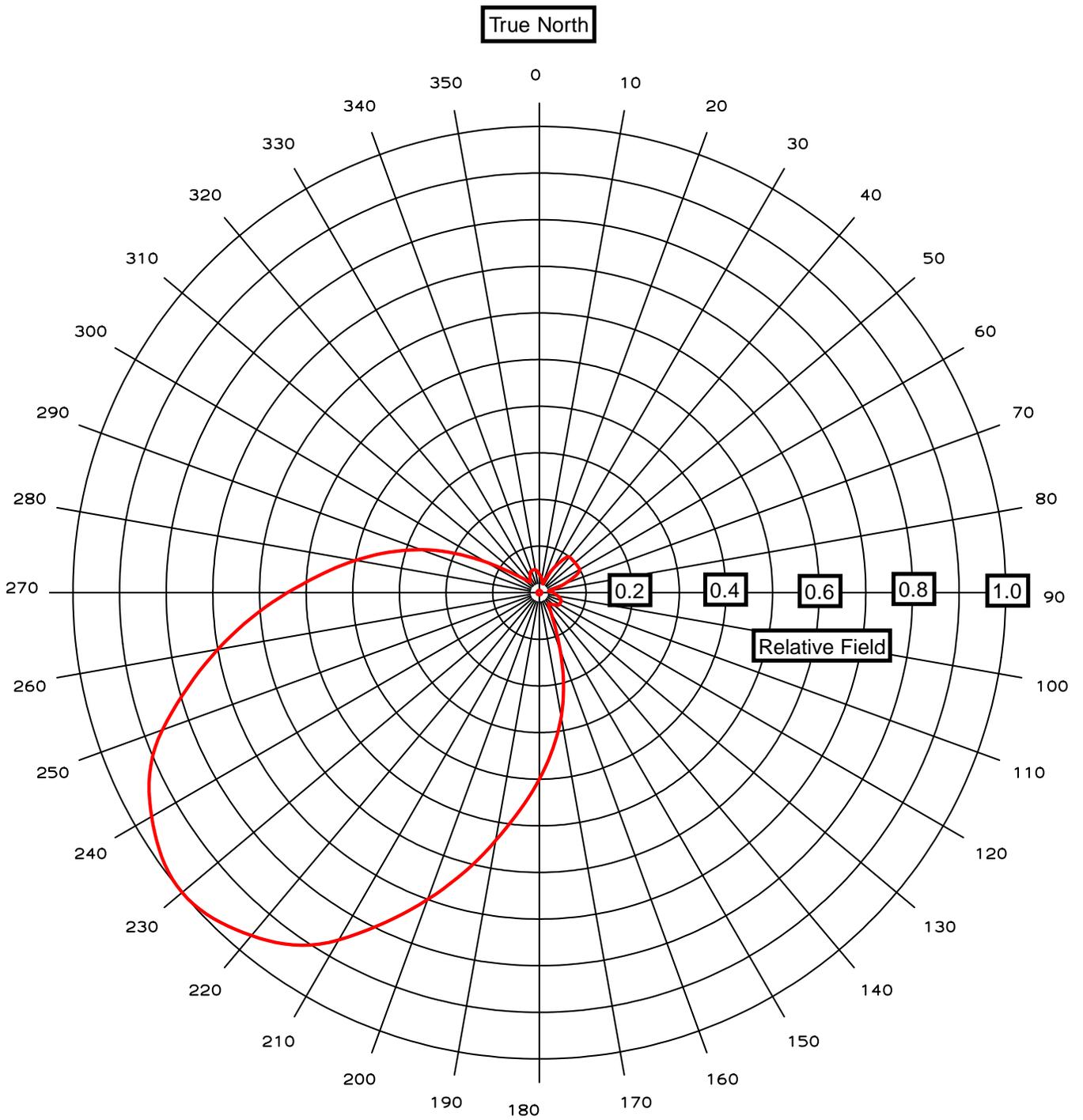
Exhibit 6 - Table 1  
**PROPOSED ANTENNA PATTERN AND DISTANCE TO CONTOUR**  
 prepared for  
**Ramar Communications II, Ltd.**  
 KTEL-LP Albuquerque, New Mexico  
 Facility ID 55059  
 Ch. 39 150 kW (DA-MAX)

Transmitter Location (NAD-27):           35-12-51 N-Lat  
   106-27-02 W-Lon  
 Antenna C/R Elevation:                    3241.3 m AMSL  
 Maximum ERP (towards radio horizon):   64.7 kW  
 Maximum ERP (at any angle):            150 kW

<u>Azimuth</u> (degrees T)	<u>Average</u> <u>Elevation</u> (m AMSL)	<u>Antenna</u> <u>Effective</u> <u>Height</u> (m)	<u>Antenna</u> <u>Main Lobe</u> <u>Horizontal</u> <u>Plane</u> <u>Relative Field</u>	<u>Depression</u> <u>Angle</u> <u>to Radio</u> <u>Horizon</u> (degrees)	<u>Vertical</u> <u>Plane</u> <u>Relative Field</u> <u>at Radio</u> <u>Horizon</u>	<u>ERP</u> <u>at Radio</u> <u>Horizon</u> (kw)	<u>Net</u> <u>Relative Field</u> <u>at Radio</u> <u>Horizon</u>	<u>Distance to</u> <u>74 dBu Contour</u> (km)
0	2066.3	1175.0	0.040	0.95	0.628	0.095	0.038	11.52
10	2106.0	1135.3	0.030	0.93	0.626	0.053	0.029	9.13
20	2089.2	1152.1	0.020	0.94	0.628	0.024	0.019	6.20
30	2087.5	1153.8	0.060	0.94	0.628	0.213	0.057	15.57
40	2015.6	1225.7	0.100	0.97	0.632	0.599	0.096	22.33
50	2047.3	1194.0	0.100	0.96	0.630	0.595	0.096	22.20
60	2080.3	1161.0	0.100	0.94	0.628	0.592	0.096	22.06
70	2073.2	1168.1	0.060	0.95	0.628	0.213	0.057	15.60
80	2125.4	1116.0	0.020	0.93	0.624	0.023	0.019	6.17
90	2145.8	1095.5	0.030	0.92	0.622	0.052	0.028	8.77
100	2186.4	1054.9	0.040	0.90	0.618	0.092	0.038	11.27
110	2248.6	992.7	0.050	0.87	0.614	0.141	0.047	13.05
120	2258.6	982.7	0.050	0.87	0.612	0.140	0.047	13.02
130	2317.8	923.5	0.040	0.84	0.608	0.089	0.037	10.63
140	2374.0	867.4	0.030	0.82	0.602	0.049	0.028	7.97

Exhibit 6 - Table 1  
**PROPOSED ANTENNA PATTERN AND DISTANCE TO CONTOUR**  
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<u>Azimuth</u> <u>(degrees T)</u>	<u>Average</u> <u>Elevation</u> <u>(m AMSL)</u>	<u>Antenna</u> <u>Effective</u> <u>Height</u> <u>(m)</u>	<u>Antenna</u> <u>Main Lobe</u> <u>Horizontal</u> <u>Plane</u> <u>Relative Field</u>	<u>Depression</u> <u>Angle</u> <u>to Radio</u> <u>Horizon</u> <u>(degrees)</u>	<u>Vertical</u> <u>Plane</u> <u>Relative Field</u> <u>at Radio</u> <u>Horizon</u>	<u>ERP</u> <u>at Radio</u> <u>Horizon</u> <u>(kw)</u>	<u>Net</u> <u>Relative Field</u> <u>at Radio</u> <u>Horizon</u>	<u>Distance to</u> <u>74 dBu Contour</u> <u>(km)</u>
150	2397.6	843.7	0.050	0.80	0.600	0.135	0.046	12.14
160	2421.6	819.7	0.130	0.79	0.598	0.907	0.118	22.03
170	2457.4	783.9	0.270	0.78	0.594	3.858	0.244	30.42
180	2262.6	978.7	0.400	0.87	0.612	8.989	0.373	39.06
190	2069.0	1172.4	0.540	0.95	0.628	17.250	0.516	46.25
200	1878.6	1362.8	0.700	1.02	0.645	30.578	0.687	52.96
210	1815.2	1426.1	0.860	1.05	0.650	46.872	0.851	57.12
220	1775.1	1466.2	0.960	1.06	0.655	59.308	0.957	59.48
230	1740.5	1500.8	1.000	1.07	0.657	64.747	1.000	60.57
240	1712.1	1529.2	0.960	1.08	0.660	60.217	0.964	60.23
250	1694.5	1546.8	0.860	1.09	0.660	48.325	0.864	58.57
260	1683.8	1557.5	0.700	1.09	0.662	32.211	0.705	55.33
270	1683.5	1557.8	0.540	1.09	0.662	19.169	0.544	51.07
280	1686.1	1555.2	0.400	1.09	0.662	10.518	0.403	46.12
290	1700.1	1541.2	0.270	1.09	0.660	4.763	0.271	39.54
300	1736.8	1504.5	0.130	1.07	0.657	1.094	0.130	27.70
310	1768.5	1472.8	0.050	1.06	0.655	0.161	0.050	14.73
320	1802.6	1438.7	0.030	1.05	0.653	0.058	0.030	9.71
330	1845.3	1396.0	0.040	1.03	0.648	0.101	0.039	12.04
340	1857.4	1383.9	0.050	1.03	0.648	0.157	0.049	14.36
350	1929.3	1312.0	0.050	1.00	0.640	0.154	0.049	14.23



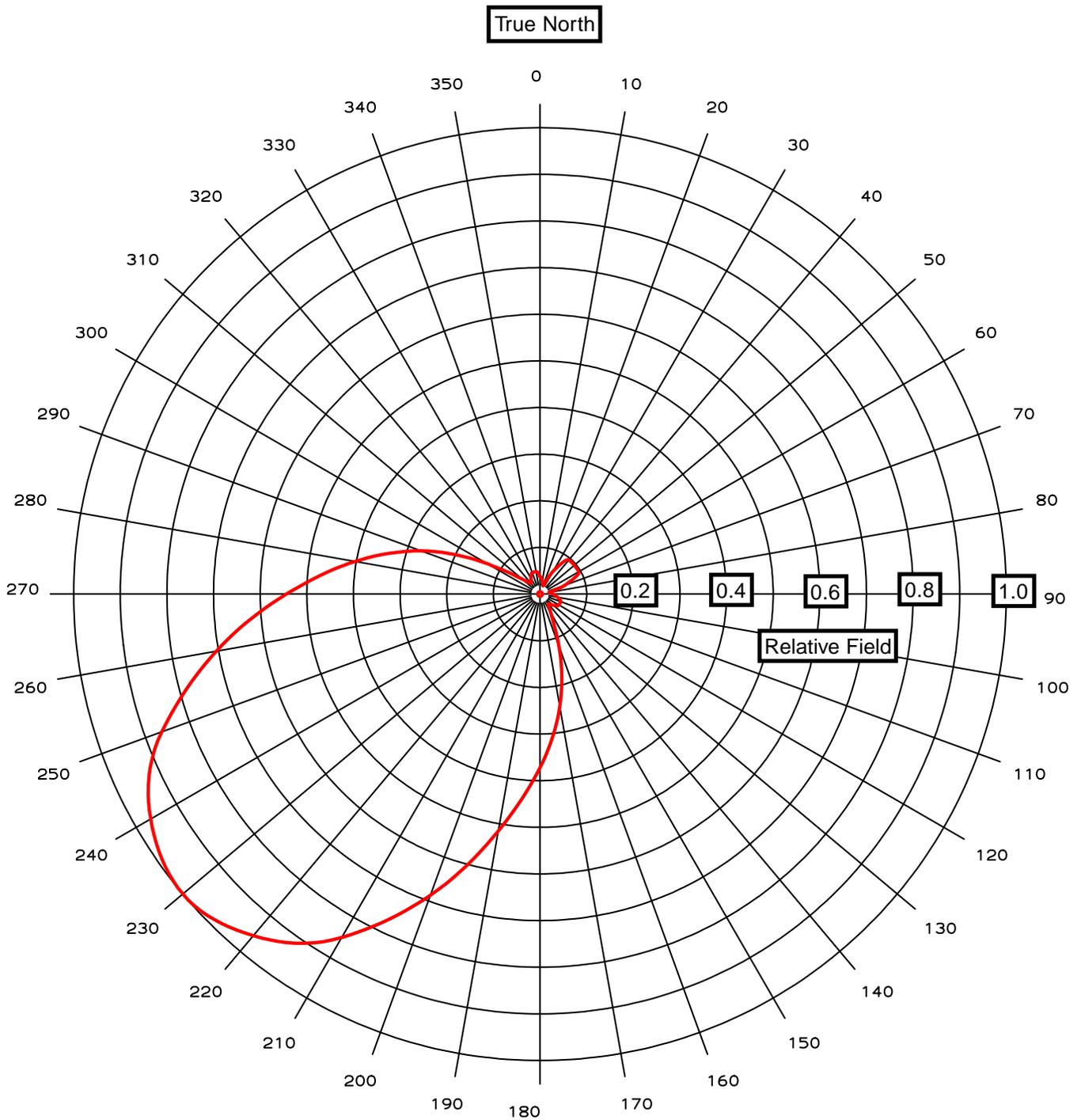
**FIGURE 1**  
**ANTENNA RADIATION PATTERN IN MAIN LOBE**

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prepared September 2003 for  
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**Cavell, Mertz & Davis, Inc.**  
 Manassas, Virginia



**FIGURE 2**  
**ANTENNA RADIATION PATTERN TO RADIO HORIZON**

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**Cavell, Mertz & Davis, Inc.**  
 Manassas, Virginia

Exhibit 6 - Table 2  
**INTERFERENCE ANALYSIS RESULTS SUMMARY**  
 prepared for  
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 Ch. 39 150 kW (DA-MAX)

<u>Stations Considered</u>	<u>City, State Channel</u>	<u>Distance (km)</u>	<u>Baseline Population</u> (1)	<u>Service Population</u> (2)	<i>---- Unique Interference ---- from proposal</i>	
					<u>Population</u> (3)	<u>Percentage</u> (4)
KTEL(TV) (PRM)	Moriarty, NM 25	106.8	257,407	41,276	0	0.00
K17DD (App)	Albuquerque, NM 38	0.0	181,155	178,757	513	0.28
K39FY (Lic)	Zuni, NM 39	208.4	1,353	1,353	0	0.00
K39EW (Lic)	Gallup, NM 39	211.2	15,343	15,343	0	0.00
KSCE-DT (CP)	El Paso, TX 39	376.9	628,000	719,430	0	0.00
KLUZ-TV (Lic)	Albuquerque, NM 41	0.3	740,700	719,712	0	0.00

Notes:

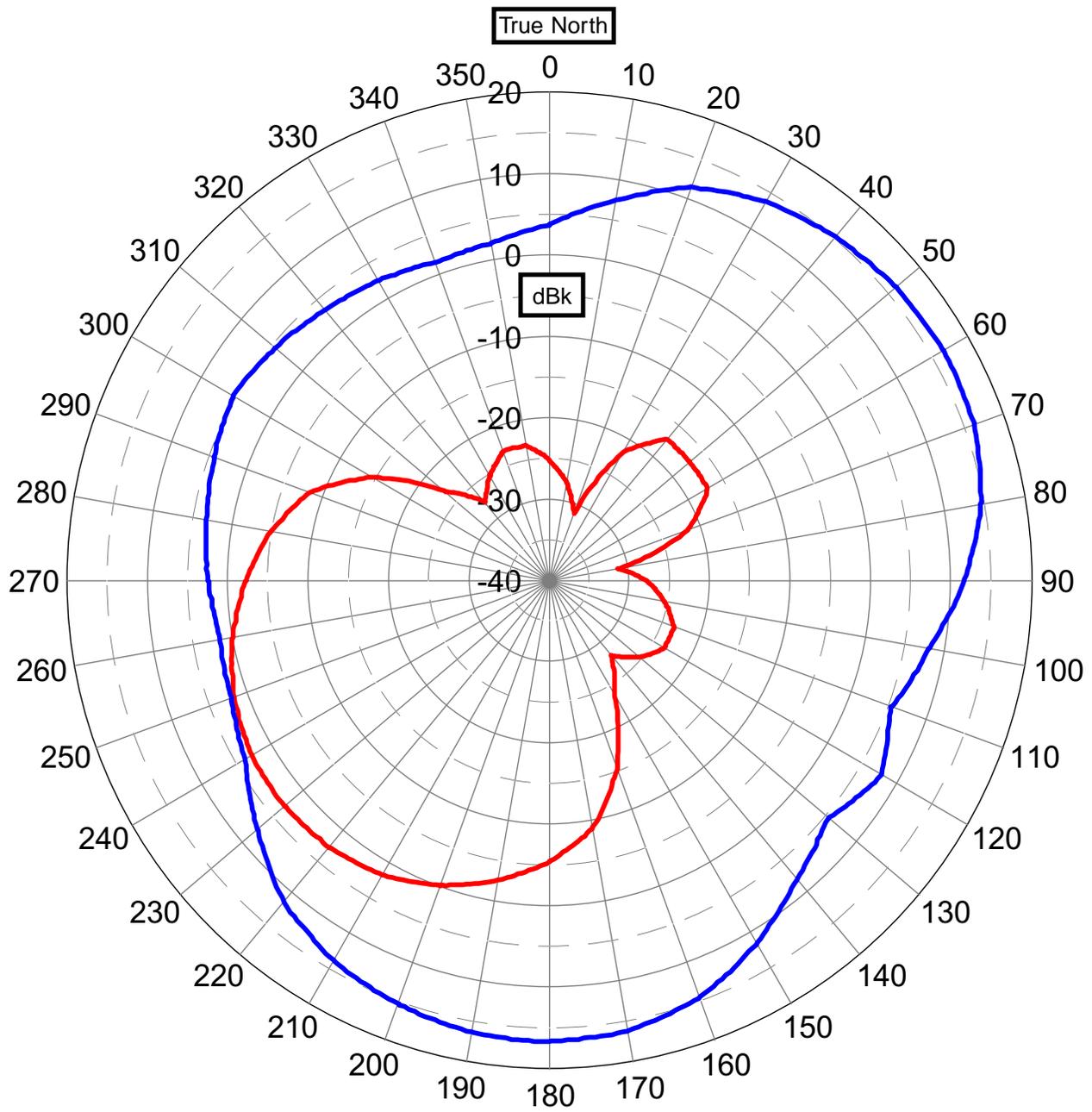
- (1) For DTV Stations: Greater of NTSC or DTV Service Population, from FCC Table  
 For NTSC Stations: Population within noise-limited contour  
 For LPTV & Class A Stations: Population within 74 dBμ contour (with dipole factor)
- (2) Interference-free service population per OET-69 before consideration of proposal
- (3) Net change in population receiving interference resulting from proposal
- (4) Proposal's impact in terms of percentage, equals (3)/(1) times 100 percent: not to exceed zero when rounded to the nearest whole percent

The determination of stations for consideration and the determination of baseline population and interference percentages were made as described in the Commission's August 10, 1998 Public Notice "Additional Application Processing Guidelines for Digital Television"

Exhibit 6 - Table 3  
**COMPARISON OF POWER TOWARDS RADIO HORIZON**  
 prepared for  
**Ramar Communications II, Ltd.**  
 KTEL-LP Albuquerque, New Mexico  
 Facility ID 55059  
 Ch. 39 150 kW (DA-MAX)

Azimuth (°T)	K17DD (App) Ch 38 (dBk)	Proposed KTEL-LP Ch 39 (dBk)	U/D (dB)	Azimuth (°T)	K17DD (App) Ch 38 (dBk)	Proposed KTEL-LP Ch 39 (dBk)	U/D (dB)
	0	3.81	-10.24		-14.04	180	16.57
10	7.43	-12.77	-20.19	190	16.21	12.37	-3.84
20	11.53	-16.26	-27.79	200	15.25	14.85	-0.40
30	13.83	-6.72	-20.54	210	13.83	16.71	2.88
40	15.25	-2.22	-17.48	220	11.53	17.73	6.20
50	16.21	-2.25	-18.46	230	7.43	18.12	10.69
60	16.57	-2.28	-18.85	240	3.81	17.80	13.99
70	16.12	-6.72	-22.83	250	2.15	16.84	14.70
80	14.52	-16.31	-30.84	260	1.63	15.09	13.46
90	11.53	-12.82	-24.36	270	2.59	12.83	10.24
100	7.91	-10.38	-18.29	280	3.42	10.23	6.81
110	5.20	-8.50	-13.69	290	4.53	6.78	2.25
120	7.67	-8.52	-16.20	300	5.51	0.40	-5.12
130	5.20	-10.52	-15.72	310	4.53	-7.93	-12.46
140	7.91	-13.10	-21.02	320	3.42	-12.41	-15.82
150	11.53	-8.70	-20.23	330	2.59	-9.97	-12.56
160	14.52	-0.43	-14.95	340	1.63	-8.03	-9.66
170	16.12	5.86	-10.25	350	2.15	-8.14	-10.28

Note: As shown in the U/D column, the proposed KTEL-LP ERP towards the radio horizon does not exceed that of K17DD by more than 15 dB along any azimuth, thus complying with §74.705(d)(4).



— Proposed KTEL-LP less 15 dB  
— K17DD (App.)

Note: ERP for Proposed KTEL-LP is decreased by 15 dB as plotted. Proposed KTEL-LP ERP less 15 dB does not exceed K17DD(App.) ERP at any azimuth.

**EXHIBIT 6 - FIGURE 3**  
**COMPARISON PLOT OF ERP**  
**TOWARDS RADIO HORIZON**

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