

TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
LICENSED FACILITY
(FCC FILE NO. BLTTL-20030512AAU)
LPTV STATION KGMC-LP
FACILITY ID 23276
FRESNO, CALIFORNIA
CH 11 3 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of a displacement relief application for modification of the licensed facility for LPTV station KGMC-LP at Fresno, California (Facility ID: 23276; File No. BLTTL-20030512AAU). Specifically, this displacement relief application proposes a change in channel, a decrease in effective radiated power (ERP), and a change from the current directional antenna system (Antenna Concepts ACS24DR, Antenna ID 17756) to a Scala HDCA-5 (Antenna ID 16175) directional antenna system to be oriented at 70 degrees true. No other changes are proposed including site, radiation center above mean sea level (RCAMSL), or community of license (Fresno). As detailed below, this application is considered a "minor change" in facilities pursuant to Section 73.3572.

Displacement Relief Eligibility/Minor Change Application

Studies based on OET Bulletin No. 69 indicate that KGMC-LP's current licensed facility on channel 22 is predicted to receive significant interference (47% of the protected 74 dBu service area) from full-service first adjacent NTSC station KFTV on channel 21 at Hanford, CA (BLCT-19971110KG). Therefore, pursuant to Section 73.3572(a)(4)(i) of the FCC's rules, it is believed that KGMC-LP is eligible for displacement relief.

Figure 1 depicts the licensed and herein proposed 74 and 68 dBu contours, respectively, for KGMC-LP. As indicated, the proposed 68 dBu contour encompasses a portion of the licensed 74 dBu contour. Therefore, the proposed modification

is also considered a "minor change" in facilities pursuant to Section 73.3572.

Response to Paragraph 13(a) - TV Broadcast Analog Protection

A study has been conducted using the provisions of Section 74.705 which indicate that the proposed KGMC-LP operation will not create prohibited interference to other existing, authorized or proposed TV broadcast analog (NTSC) full-power stations, with the exception of the licensed operation of KNTV(TV) on channel 11, at San Jose, California (BLCT-20000515ADF). Therefore, waiver of Section 74.705 is requested with respect to the KNTV(TV) operation. Justification for the waiver request is provided below.

Station KNTV(TV) operates co-channel to the proposed KGMC-LP operation. Based on the provisions of the OET-69 Bulletin as permitted by FCC rules [Section 74.705(e)], it is believed that KGMC-LP's proposed operation complies with the FCC's interference criteria towards KNTV's licensed operation. Specifically, calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 2 square kilometer grid. The results of the OET Bulletin No. 69 are tabulated on Figure 2 and, as indicated, the proposal complies with the FCC's 0.5% interference threshold criteria towards KNTV(TV).¹

Response to Paragraph 13(b) - DTV Station Protection

Calculations based on OET Bulletin No. 69 indicate that the proposed KGMC-LP operation on channel 11 complies with the FCC's 0.5% interference threshold criteria to all allotted, proposed or actual DTV operating facilities on channels 10, 11, and 12. The results are tabulated in Figure 2.

¹ The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed. An Alpha based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin 69.

Response to Paragraph 13(c) - LPTV/TV Translator, Class A
Station Protection

A study has been conducted which indicates that the KGMC-LP proposal will not create prohibited interference to other existing, authorized or proposed LPTV, TV Translator and Class A stations, with the exception of the licensed co-channel LPTV operations K11KD at Mammoth Lakes, California (BLTTV-4235) and K11FU at Springville, California (BLTTV-4209). However, based on the provisions of the OET-69 Bulletin as permitted by FCC rules [Section 74.707(e)] it is believed that KGMC-LP's proposed operation complies with the FCC's interference criteria towards these operations. Specifically, calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 2 square kilometer grid. The results of the OET Bulletin No. 69 are tabulated on Figure 2 and, as indicated, the KGMC-LP proposal complies with the FCC's 0.5% interference threshold criteria towards K11KD and K11FU.

Environmental Considerations

The proposed KGMC-LP television facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". The calculated power density at the base of the tower was calculated using the appropriate equation of the Bulletin.

Using a worst-case vertical relative field value of 0.25 towards the tower base (see vertical plane relative field pattern attached as Figure 3), a maximum visual effective radiated power of 3 kilowatts and 10 percent aural power, the calculated power density at 2 meters above ground level at the base of the tower is 0.0024 milliwatts per square centimeter (mW/cm^2), or 1.2% percent of the Commission's recommended limit applicable to general population/uncontrolled exposure areas ($0.2 \text{ mW}/\text{cm}^2$ for TV channel 11). Therefore, based on the responsibility threshold of 5%, the KGMC-LP proposal will comply with the new RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, an agreement will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

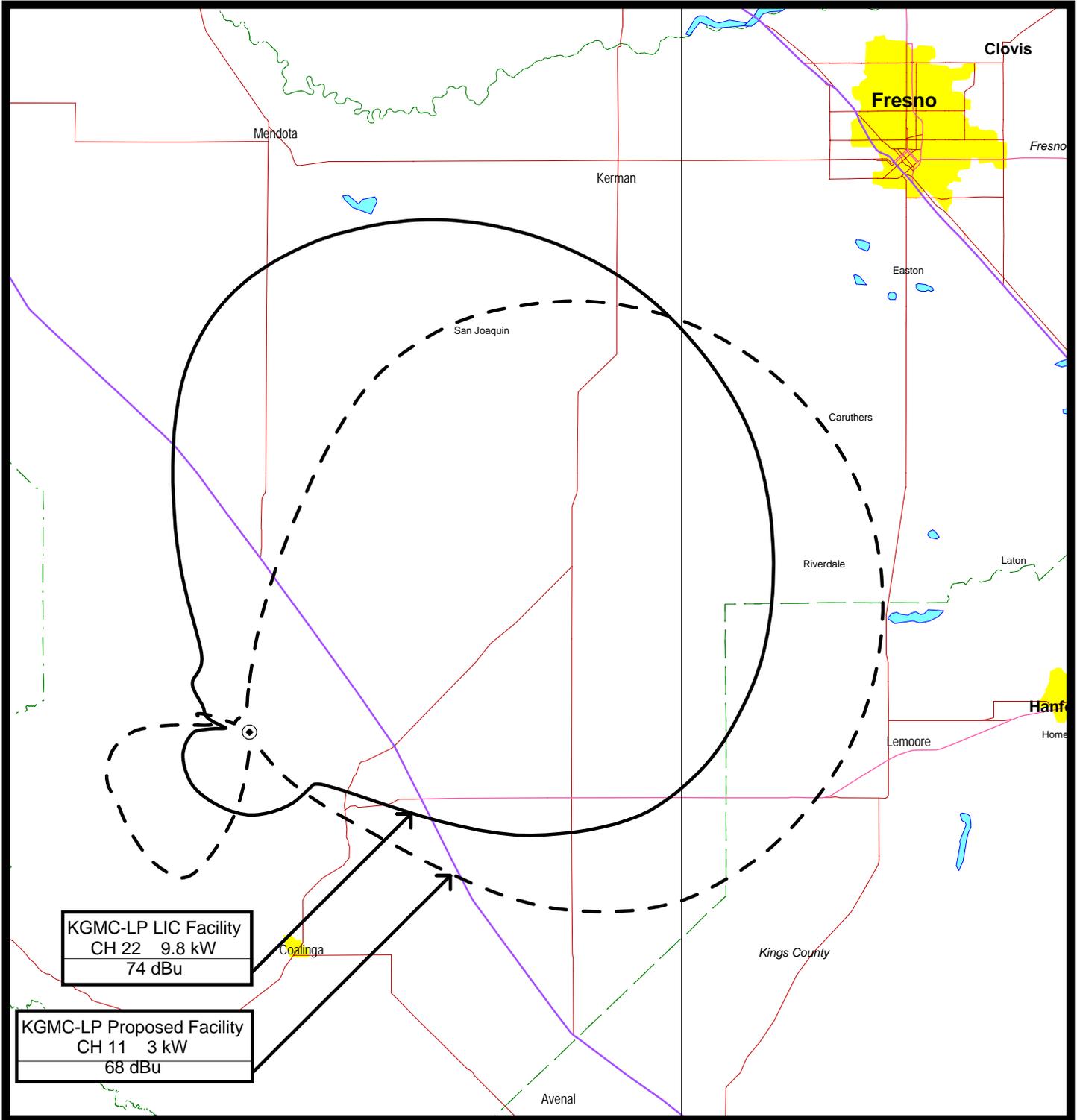
In addition, it appears that the existing tower is otherwise excluded from environmental processing as it complies with all the criteria for such exclusion in Section 1.1306.

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Figure 1



KGMC-LP LIC Facility
CH 22 9.8 kW
74 dBu

KGMC-LP Proposed Facility
CH 11 3 kW
68 dBu

10 0 10 20 30 40
Kilometers

PREDICTED COVERAGE CONTOURS

STATION KGMC-LP
FRESNO, CALIFORNIA
CH 11 3 KW (MAX-DA)

OET-69 DTV, FULL-SERVICE NTSC AND LPTV INTERFERENCE CAUSED STUDY

CELL SIZE : 2.00
Using offset in determining thresholds

K11FU 36-09-08 118-46-50 11(N) 0.008 kw 920 m DA 50.0% 68.0 dBu
SPRINGVILLE, CA

LIC BLTTV-4209

0.85 0.70 0.52 0.40 0.28 0.25 0.24 0.26 0.29 0.30 0.31 0.29
0.27 0.26 0.27 0.28 0.30 0.31 0.40 0.47 0.56 0.63 0.70 0.77
0.80 0.78 0.72 0.65 0.61 0.65 0.70 0.80 0.88 0.97 1.00 0.96
(225.0 0.74)(235.0 0.79)(335.0 0.99)(345.0 0.98)

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	48.028267	1017
not affected by terrain losses	44.025909	1017

KGMC-LP 36-18-17 120-24-08 11(-) 3.0 kw 1147.1 m DA 10.0% 68.0 dBu
FRESNO, CA

PROPOSED

1.00 0.94 0.81 0.64 0.46 0.27 0.10 0.04 0.01 0.01 0.01 0.01
0.05 0.10 0.12 0.12 0.12 0.12 0.14 0.16 0.16 0.12 0.06 0.01
0.01 0.01 0.01 0.01 0.01 0.03 0.12 0.29 0.46 0.64 0.81 0.94

Ref Az: 70.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 45.00

	Area	Pop
Interference	0	0

K11KD 37-37-39 119-01-45 11(N) 0.008 kw 3348 m DA 50.0% 68.0 dBu
MAMMOTH LAKES, CA

LIC BLTTV-4235

1.00 0.94 0.81 0.67 0.43 0.28 0.26 0.20 0.20 0.22 0.23 0.23
0.22 0.24 0.26 0.30 0.25 0.27 0.31 0.27 0.28 0.30 0.26 0.25
0.29 0.29 0.24 0.22 0.20 0.18 0.20 0.28 0.43 0.67 0.81 0.94

Ref Az: 72.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	28.165171	4284
not affected by terrain losses	28.165171	4284

KGMC-LP 36-18-17 120-24-08 11(-) 3.0 kw 1147.1 m DA 10.0% 68.0 dBu
FRESNO, CA

PROPOSED

1.00 0.94 0.81 0.64 0.46 0.27 0.10 0.04 0.01 0.01 0.01 0.01
0.05 0.10 0.12 0.12 0.12 0.12 0.14 0.16 0.16 0.12 0.06 0.01
0.01 0.01 0.01 0.01 0.01 0.03 0.12 0.29 0.46 0.64 0.81 0.94

Ref Az: 70.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 45.00

	Area	Pop
Interference	0	0

KNTV 37-06-40 121-50-34 11(+) 182.0 kw 1235 m 50.0% 56.0 dBu
SAN JOSE, CA 29472 4933 FCC NTSC BL: 6861557 FCC IX POP%: 0.0
LIC BLCT-20000515ADF

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	47150.5	6861557
not affected by terrain losses	36970.5	5535575

KGMC-LP 36-18-17 120-24-08 11(-) 3.0 kw 1147.1 m DA 10.0% 68.0 dBu
FRESNO, CA
PROPOSED

1.00	0.94	0.81	0.64	0.46	0.27	0.10	0.04	0.01	0.01	0.01	0.01
0.05	0.10	0.12	0.12	0.12	0.12	0.14	0.16	0.16	0.12	0.06	0.01
0.01	0.01	0.01	0.01	0.01	0.03	0.12	0.29	0.46	0.64	0.81	0.94

Ref Az: 70.0

Using DEFAULT vertical antenna pattern

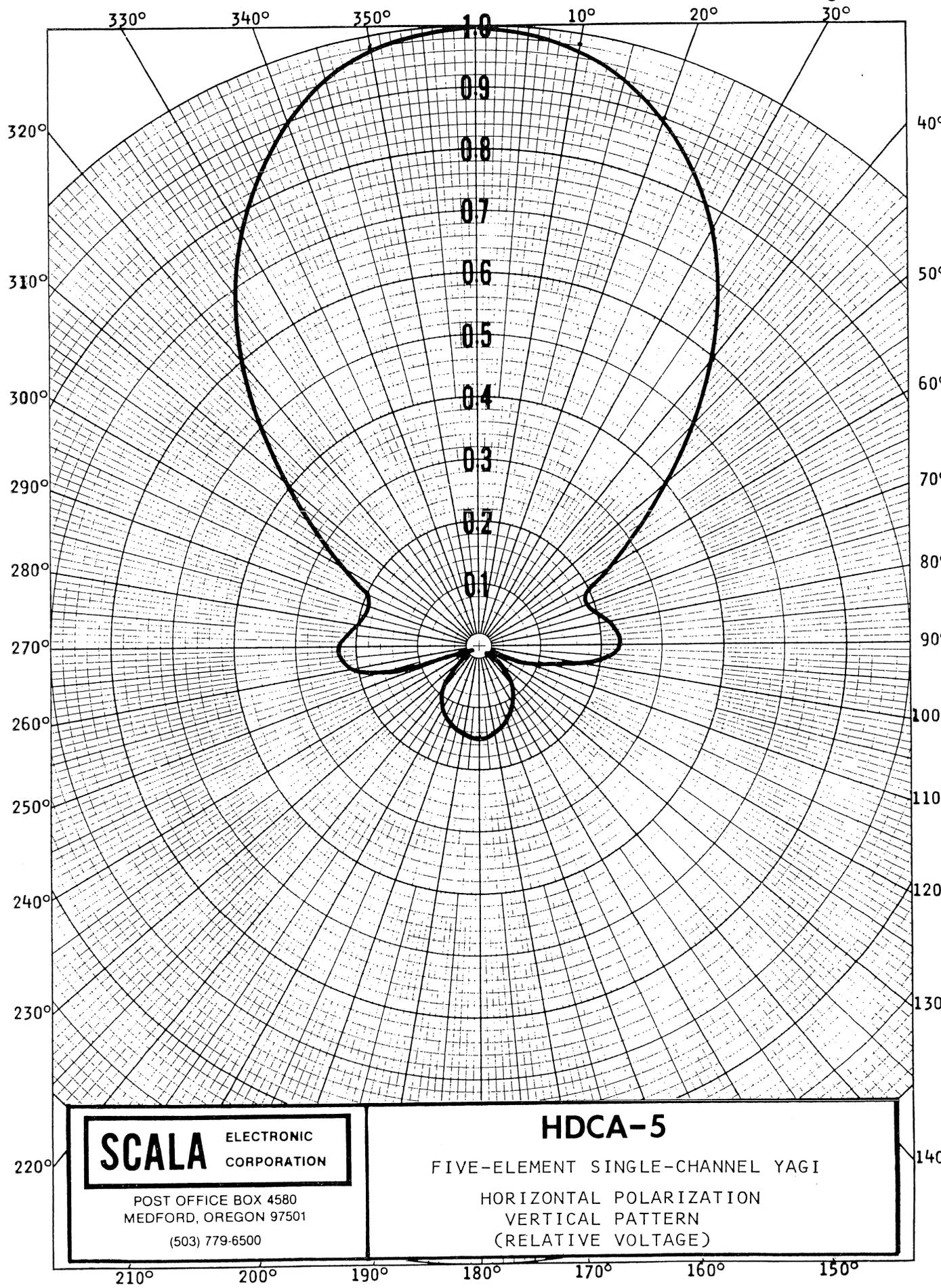
D/U Baseline: 28.00

	Area	Pop
Interference	164.0	1006 (0.015%)

Summary of Calculations

Facility	Channel	Type	Baseline	Permissible	IX	%Base
K11FU, SPRINGVILLE, CA	11	TV	1017	0.5	0	0.00
K11KD, MAMMOTH LAKES, CA	11	TV	4284	0.5	0	0.00
KNTV, SAN JOSE, CA	11	TV	6861557	0.5	1006	0.02

Figure 3



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HDCA-5

FIVE-ELEMENT SINGLE-CHANNEL YAGI
HORIZONTAL POLARIZATION
VERTICAL PATTERN
(RELATIVE VOLTAGE)