

**Interference Study**

This minor change modification specifies a new antenna location, resulting in a change in the ERP, HAAT, antenna height above ground, tower height, and 1 mV/m contour coverage.

The ERP is being increased from .700 kW (non-directional, circular) to 1.3 kW (non-directional circular), and the HAAT is changed from 954 meters to 1121 meters. Due to the increase in ERP and HAAT, the facility Class has changed from C2 to C1.

KQMC will continue to provide a minimum of 50% 1 mV/m contour coverage over the community of license, and the proposed 1 mV/m contour overlaps a portion of the existing 1 mV/m contour.

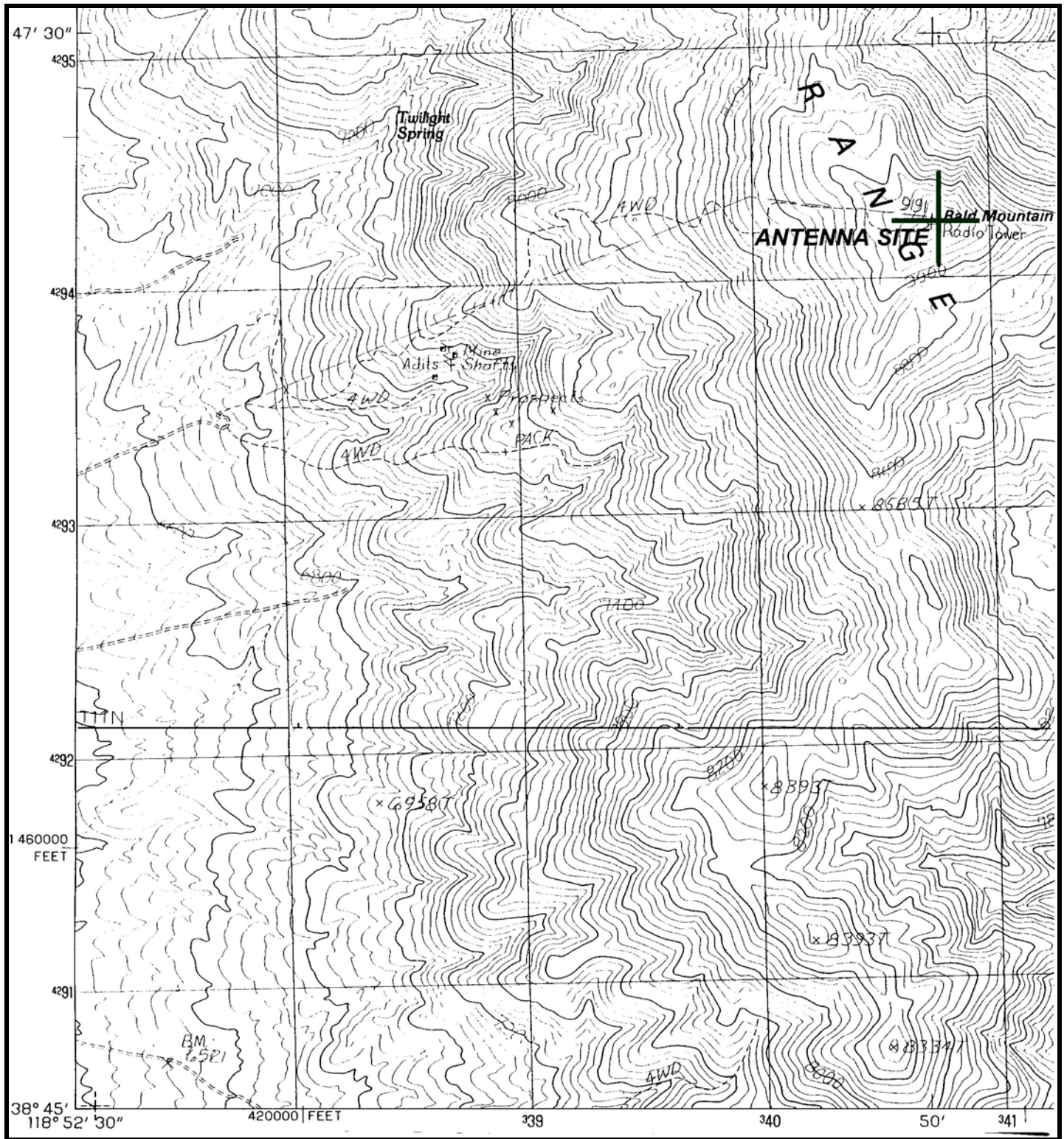
KQMC as modified meets all minimum distance separation requirements with regard to all stations that are co-channel, first, second or third adjacent channels, and those separated by 53/54 channels, in compliance with Section 73.509.

The following information is included in this Exhibit:

|           |  |
|-----------|--|
| Page 2    | 7.5 topographic map showing antenna location                       |
| Page 3    | Tabulation of ERP/HAAT/60 dBu distance in 45 degree increments     |
| Page 4    | 1 mV/m contour coverage map including area and population          |
| Page 5    | Proposed and existing 1 mV/m contour coverage                      |
| Page 6    | Allocation Study showing relationship of KQMC to other stations    |
| Pages 7-9 | Detailed information on contour protection of KKTO, Tahoe City, CA |

The Applicant certifies that it will comply with all applicable FCC rules and regulations in the operation of KQMC, including those not specifically addressed in this minor change.

**7.5 Topographic map showing antenna location**



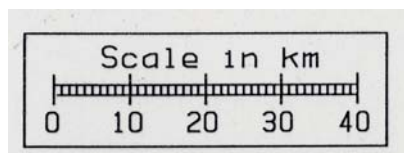
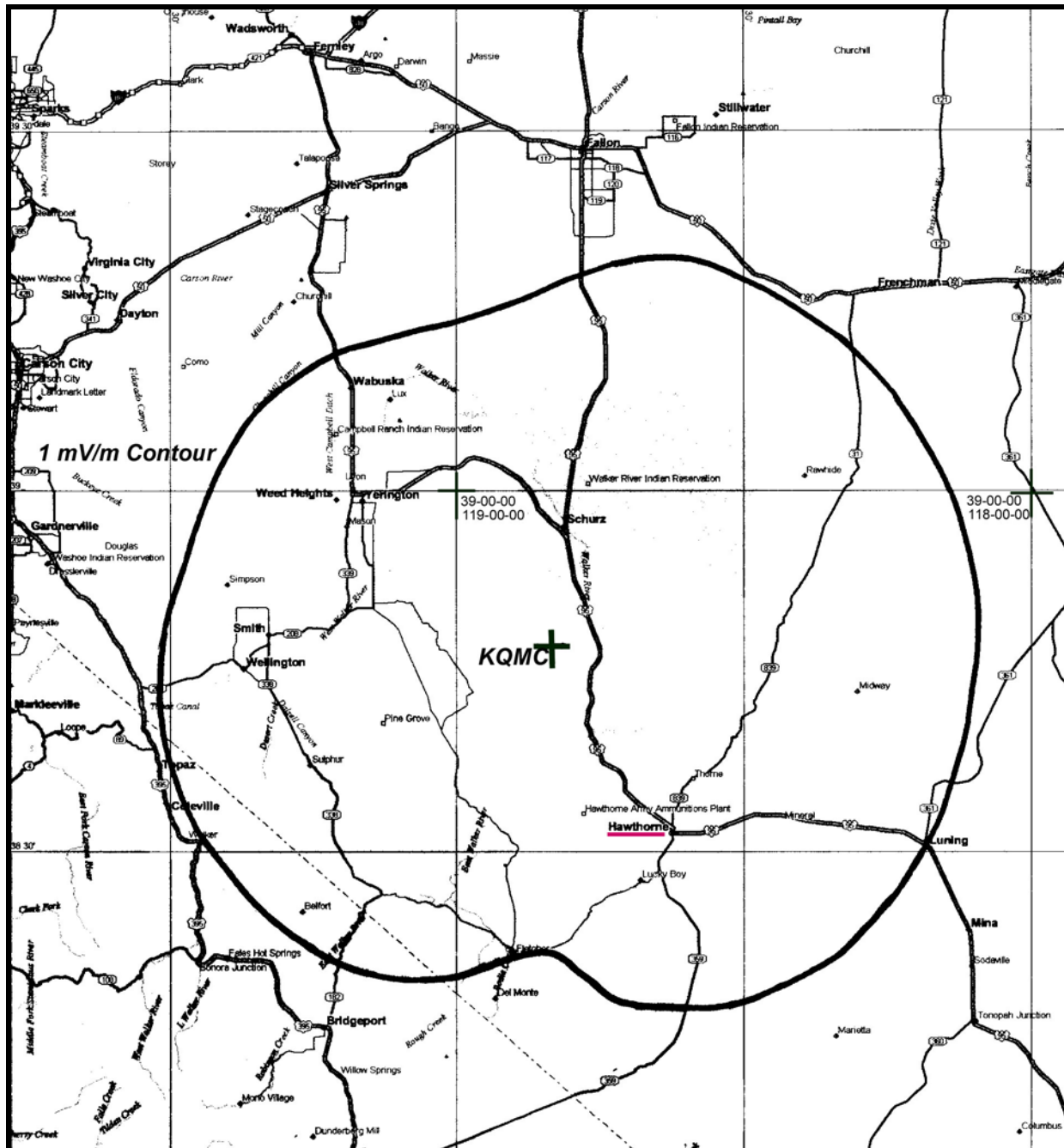
**Tabulation of ERP/HAAT/60 dBu distance in 45 degree increments**

38 – 47 – 04 / 118 – 49 – 59 (NAD 27)  
1.3 kW ERP non-directional, circular  
Antenna COR AGL – 15.0 meters  
Antenna COR AMSL – 2816.0 meters  
HAAT – 1121.0 meters

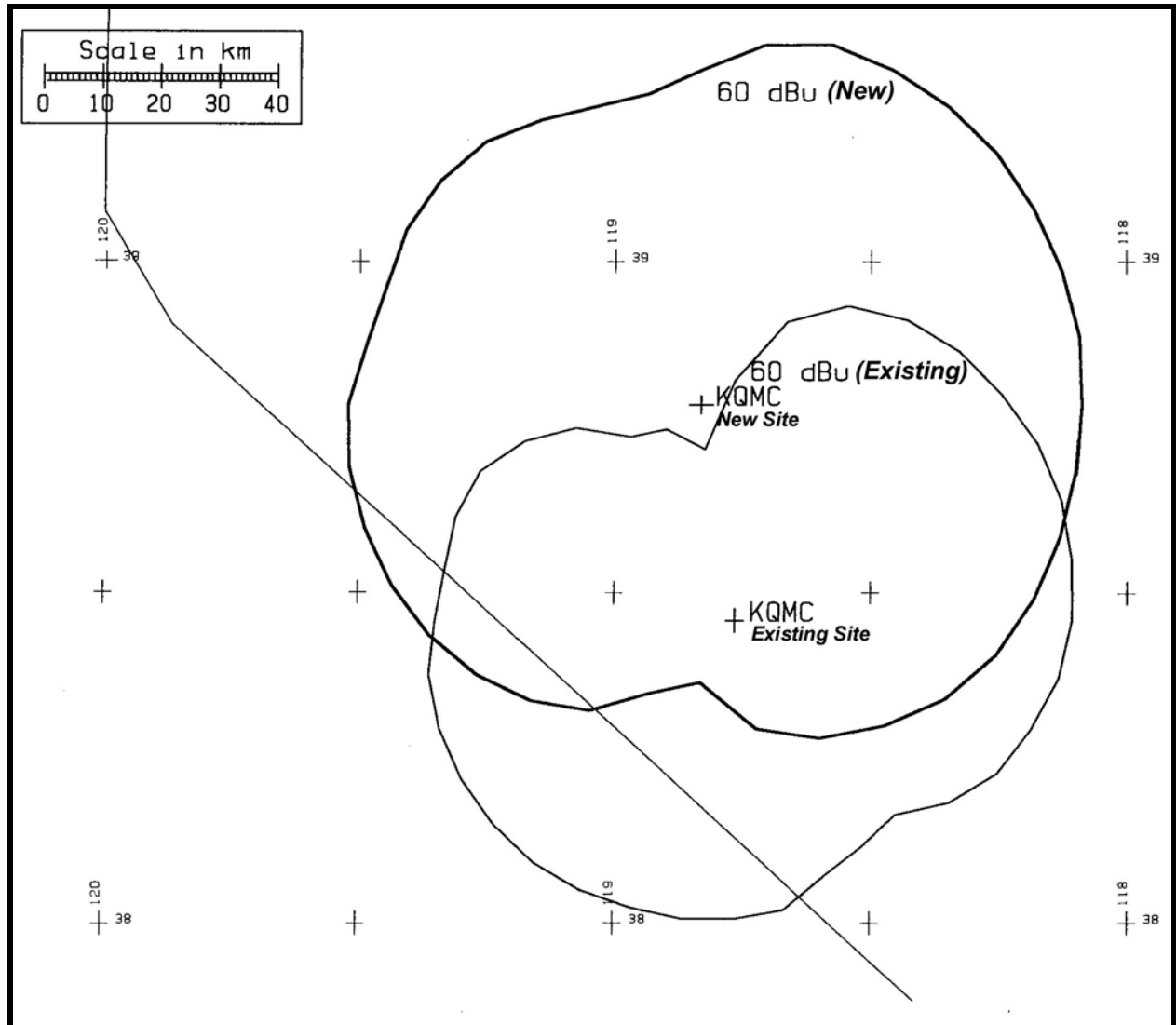
| Azimuth | HAAT (m) | 60 dBu (km) |
|---------|----------|-------------|
| 0       | 889.3    | 56.0        |
| 45      | 1447.9   | 65.2        |
| 90      | 1403.8   | 64.6        |
| 135     | 1450.0   | 65.2        |
| 180     | 593.0    | 46.8        |
| 225     | 1092.0   | 59.9        |
| 270     | 1106.0   | 60.1        |
| 315     | 984.0    | 57.9        |

1 mV/m contour coverage map including area and population

Area – 11,375.4 sq. km  
Population (2000 Census) – 14,941



**Proposed and existing 1 mV/m contour coverage**



**American Educational Broadcasting**  
**KQMC, Hawthorne, NV, CP Modification**  
**EXHIBIT 15, MAY 2003**

**Allocation Study showing relationship of KQMC to other stations**

CH 211C1 - 90.1 MHz, 1.3 kW, HAAT=1121.0M, COR= 2816 M

38 47 04 N  
118 49 59 W

| CH CITY   | CALL   | TYPE STATE | AZI. <--       | DIST FILE #              | LAT. LNG.             | Pwr(kW) HAAT(M) | COR(M) INT(km) | PRO(km) LICENSEE                          | *IN* (Overlap in km) | *OUT*  |
|---|--------|------------|----------------|--------------------------|-----------------------|-----------------|----------------|---|----------------------|--------|
| 208B East Sonora  | KEKL.C | CP DVX CA  | 237.4<br>57.4  | 147.09<br>BPED19980619MD | 38 03 49<br>120 14 47 | 1.400<br>484    | 1520<br>2.5    | 42.5<br>Educational Media Foundation      | 84.24                | 102.12 |
| 208A Reno   | 951127 | APP DCN NV | 316.8<br>136.8 | 120.81<br>BPED19951127MA | 39 34 20<br>119 47 51 | 5.000<br>-1     | 1557<br>1.6    | 15.0<br>Bd Of Regents / Un Of Nv -        | 58.81                | 103.31 |
| 209C2 Tahoe City  | 950718 | APP CN CA  | 303.1<br>123.1 | 108.09<br>BPED19950718MA | 39 18 38<br>119 53 01 | 0.600<br>893    | 2977<br>1.7    | 48.7<br>Thomas Aquinas School             | 46.02                | 56.94  |
| 209C Reno   | 951113 | APP DCN NV | 309.7<br>129.7 | 93.55<br>BPED19951113MB  | 39 19 08<br>119 40 07 | 13.000<br>716   | 2395<br>6.8    | 74.8<br>Stockton Chistian Life College    | 26.32                | 16.21  |
| 210B Le Grand   | KEFR   | LIC CN CA  | 217.3<br>37.3  | 174.05<br>BLED19910610KB | 37 32 01<br>120 01 50 | 1.800<br>653    | 1330<br>78.1   | 52.2<br>Family Stations, Inc.             | 35.58                | 31.88  |
| 210A Camino   | 970626 | APP DVN CA | 268.8<br>88.8  | 162.59<br>BPED19970626MC | 38 44 18<br>120 42 10 | 1.000<br>155    | 930<br>34.2    | 22.9<br>Christian Companion Network       | 67.96                | 49.73  |
| 210A Pollock Pines  | 970626 | APP DCX CA | 268.8<br>88.8  | 162.59<br>BPED19970626MD | 38 44 18<br>120 42 10 | 0.100<br>147    | 924<br>18.5    | 12.4<br>Howell Mountain Broadcasting      | 83.73                | 60.23  |
| 210A Placerville  | 970626 | APP VN CA  | 268.8<br>88.8  | 162.50<br>BPED19970626MA | 38 44 18<br>120 42 06 | 0.100<br>159    | 937<br>19.4    | 13.0<br>American Family Association       | 82.71                | 59.60  |
| 210A Pollock Pines  | 960118 | APP DVN CA | 268.8<br>88.8  | 163.08<br>BPED19960118MM | 38 44 18<br>120 42 30 | 0.980<br>171    | 931<br>35.7    | 23.9<br>American Educational Broadcasting | 66.95                | 49.28  |
| 211B Stockton   | KYCC.A | APP DCX CA | 247.5<br>67.5  | 232.83<br>BPED19971007IG | 37 57 30<br>121 16 55 | 26.000<br>98    | 105<br>114.2   | 39.1<br>Your Christian Companion Network  | 58.22                | 55.84  |
| 211B Stockton   | KYCC   | LIC DCN CA | 247.4<br>67.4  | 233.43<br>BLED19840319AD | 37 57 10<br>121 17 11 | 26.000<br>55    | 61<br>106.2    | 30.1<br>Your Christian Companion Network  | 66.82                | 65.39  |
| 211B Stockton   | KYCC.A | APP DVN CA | 247.5<br>67.5  | 232.83<br>BPED19971007IG | 37 57 30<br>121 16 55 | 50.000<br>93    | 100<br>129.4   | 43.5<br>Your Chiristian Companion Network | 43.04                | 51.41  |
| 211B1 Chico   | KZFR   | LIC CN CA  | 296.2<br>116.2 | 266.37<br>BLED19900713KD | 39 48 25<br>121 37 35 | 6.300<br>179    | 731<br>98.9    | 37.5<br>Golden Valley Community Br        | 107.08               | 90.93  |
| 211B Stockton   | KCJH.A | APP DCN CA | 247.5<br>67.5  | 232.83<br>BPED19971007IG | 37 57 30<br>121 16 55 | 26.000<br>98    | 105<br>114.2   | 39.1<br>Your Christian Companion Network  | 58.22                | 55.84  |
| 212B Fresno   | KFNO.A | APP DCX CA | 195.6<br>15.6  | 197.04<br>BPED19981110IA | 37 04 25<br>119 25 52 | 2.200<br>594    | 1424<br>77.8   | 52.0<br>Family Stations, Inc.             | 58.81                | 55.07  |
| 212B Fresno   | KFNO.A | APP DCN CA | 195.6<br>15.6  | 197.01<br>BPED19981110IA | 37 04 26<br>119 25 52 | 2.200<br>594    | 1424<br>77.8   | 52.0<br>Family Stations, Inc.             | 58.78                | 55.04  |
| 212B Fresno   | KFNO   | LIC DCN CA | 195.6<br>15.6  | 197.01<br>BLED19920123KA | 37 04 26<br>119 25 52 | 1.350<br>601    | 1424<br>71.7   | 47.5<br>Family Stations, Inc.             | 64.95                | 59.58  |
| 213C Tahoe City   | *KKTO  | LIC VN CA  | 303.1<br>123.1 | 108.09<br>BLED19970902KB | 39 18 38<br>119 53 01 | 38.000<br>1361  | 2977<br>12.2   | 100.6<br>California State University      | 37.58                | 5.05   |
| > Reference HAAT at 303.1°= 1007.8 M, Pwr= 001.3 kW, Pro. Dist. = 58.34 km, Int Dist. = 2.48 km |        |            |                |                          |                       |                 |                |   |                      |        |
| 06Z2E Sacramento  | KVIE   | LI HN CA   | 257.1<br>77.1  | 239.85<br>BLET19861201L1 | 38 16 18<br>121 30 18 | 100.000<br>567  | 570<br>0.0     | 125.8<br>Kvie, Inc.                       | 114.0R               | 125.8M |

\* = ERP and HAAT on direct line to and from reference station.



**Contour protection of KKTO (LIC), Tahoe City, CA (BLED-19970902KB)**

| KQMC<br>Channel= 211<br>Max ERP = 1.3 kW<br>RCAMSL = 2816 M<br>N. Lat = 384704<br>W. Lng = 1184959 |             |             |              | KKTO - BLED970902KB<br>Channel = 213<br>Max ERP = 38 kW<br>RCAMSL = 2977 M<br>N. Lat = 391838<br>W. Lng = 1195301 |             |             |              |                 |
|--|-------------|-------------|--------------|---|-------------|-------------|--------------|-----------------|
| Protected<br>60 dBu  |             |             |              | Interfering<br>100 dBu  |             |             |              |                 |
| Azimuth<br>(degrees)   | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Azimuth<br>(degrees)  | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Actual<br>(dBu) |
| 0.0  | 1.300       | 889.3       | 56.0         | 91.5  | 38.000      | 1270.8      | 90.7         | 69.6            |
| 10.0   | 1.300       | 1167.2      | 61.2         | 89.0  | 38.000      | 1264.5      | 101.2        | 66.4            |
| 20.0   | 1.300       | 1377.1      | 64.2         | 89.0  | 38.000      | 1264.5      | 112.6        | 63.1            |
| 30.0   | 1.300       | 1405.7      | 64.6         | 91.1  | 38.000      | 1268.2      | 123.0        | 59.9            |
| 40.0   | 1.300       | 1432.0      | 65.0         | 93.7  | 38.000      | 1283.7      | 132.7        | 57.1            |
| 50.0   | 1.300       | 1453.2      | 65.3         | 96.7  | 38.000      | 1299.9      | 141.7        | 54.9            |
| 60.0   | 1.300       | 1438.9      | 65.1         | 100.0   | 38.000      | 1317.7      | 149.4        | 53.1            |
| 70.0   | 1.300       | 1441.4      | 65.1         | 103.4   | 38.000      | 1322.5      | 156.3        | 51.4            |
| 80.0   | 1.300       | 1448.5      | 65.2         | 106.9   | 38.000      | 1299.8      | 162.1        | 49.9            |
| 90.0   | 1.300       | 1403.8      | 64.6         | 110.6   | 38.000      | 1300.6      | 166.2        | 48.9            |
| 100.0  | 1.300       | 1412.1      | 64.7         | 114.2   | 38.000      | 1317.4      | 169.7        | 48.1            |
| 110.0  | 1.300       | 1433.3      | 65.0         | 117.9   | 38.000      | 1340.4      | 172.2        | 47.7            |
| 120.0  | 1.300       | 1462.2      | 65.4         | 121.6   | 38.000      | 1357.4      | 173.6        | 47.5            |
| 130.0  | 1.300       | 1474.2      | 65.5         | 125.4   | 38.000      | 1369.5      | 173.5        | 47.6            |
| 140.0  | 1.300       | 1411.5      | 64.7         | 129.1   | 38.000      | 1375.2      | 171.2        | 48.2            |
| 150.0  | 1.300       | 1254.5      | 62.5         | 132.6   | 38.000      | 1367.1      | 166.3        | 49.3            |
| 160.0  | 1.300       | 1085.2      | 59.8         | 135.7   | 38.000      | 1356.5      | 160.0        | 50.7            |
| 170.0  | 1.300       | 866.7       | 55.4         | 138.2   | 38.000      | 1361.5      | 151.5        | 52.9            |
| 180.0  | 1.300       | 593.0       | 46.8         | 139.1   | 38.000      | 1364.3      | 139.3        | 56.0            |
| 190.0  | 1.300       | 661.4       | 49.4         | 142.3   | 38.000      | 1366.3      | 135.2        | 57.0            |
| 200.0  | 1.300       | 846.1       | 54.9         | 146.6   | 38.000      | 1345.7      | 131.7        | 57.8            |
| 210.0  | 1.300       | 974.3       | 57.7         | 150.1   | 38.000      | 1305.1      | 125.1        | 59.5            |
| 220.0  | 1.300       | 1062.5      | 59.4         | 152.9   | 38.000      | 1259.6      | 116.7        | 61.8            |
| 230.0  | 1.300       | 1121.6      | 60.4         | 155.2   | 38.000      | 1209.4      | 107.1        | 64.3            |
| 240.0  | 1.300       | 1148.7      | 60.9         | 156.6   | 38.000      | 1177.9      | 96.8         | 67.1            |
| 250.0  | 1.300       | 1155.2      | 61.0         | 156.9   | 38.000      | 1171.6      | 86.2         | 70.1            |
| 260.0  | 1.300       | 1149.8      | 60.9         | 155.7   | 38.000      | 1198.0      | 75.7         | 73.4            |
| 270.0  | 1.300       | 1106.0      | 60.1         | 152.2   | 38.000      | 1273.8      | 66.1         | 77.0            |
| 280.0  | 1.300       | 984.2       | 57.9         | 145.0   | 38.000      | 1357.9      | 59.1         | 79.9            |
| 290.0  | 1.300       | 946.2       | 57.1         | 136.3   | 38.000      | 1356.5      | 53.8         | 81.7            |
| 300.0  | 1.300       | 1000.2      | 58.2         | 126.0   | 38.000      | 1371.0      | 49.9         | 83.2            |
| 310.0  | 1.300       | 995.3       | 58.1         | 114.5   | 38.000      | 1318.6      | 50.8         | 82.5            |
| 320.0  | 1.300       | 953.4       | 57.3         | 105.1   | 38.000      | 1312.5      | 55.8         | 80.7            |
| 330.0  | 1.300       | 841.5       | 54.8         | 99.8  | 38.000      | 1316.8      | 64.2         | 77.9            |
| 340.0  | 1.300       | 772.3       | 52.9         | 96.8  | 38.000      | 1300.7      | 73.1         | 75.0            |
| 350.0  | 1.300       | 763.6       | 52.7         | 94.6  | 38.000      | 1288.1      | 81.8         | 72.2            |

Contour protection of KKTO (LIC), Tahoe City, CA (BLED-19970902KB)

|                      |             |             |              |                      |             |             |              |                 |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| KKTO - BLED970902KB  |             |             |              | KQMC                 |             |             |              |                 |
| Channel= 213         |             |             |              | Channel = 211        |             |             |              |                 |
| Max ERP = 38 kW      |             |             |              | Max ERP = 1.3 kW     |             |             |              |                 |
| RCAMSL = 2977 M      |             |             |              | RCAMSL = 2816 M      |             |             |              |                 |
| N. Lat = 391838      |             |             |              | N. Lat = 384704      |             |             |              |                 |
| W. Lng = 1195301     |             |             |              | W. Lng = 1184959     |             |             |              |                 |
| Protected            |             |             |              | Interfering          |             |             |              |                 |
| 60 dBu               |             |             |              | 100 dBu              |             |             |              |                 |
| Azimuth<br>(degrees) | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Azimuth<br>(degrees) | ERP<br>(kW) | HAAT<br>(m) | Dist<br>(km) | Actual<br>(dBu) |
| 0.0                  | 38.000      | 661.0       | 84.3         | 327.6                | 1.300       | 867.1       | 168.9        | 30.1            |
| 10.0                 | 38.000      | 870.3       | 91.0         | 333.3                | 1.300       | 796.5       | 165.8        | 30.1            |
| 20.0                 | 38.000      | 1087.4      | 96.1         | 338.8                | 1.300       | 775.1       | 159.4        | 31.4            |
| 30.0                 | 38.000      | 1203.9      | 98.2         | 343.9                | 1.300       | 758.7       | 149.3        | 33.8            |
| 40.0                 | 38.000      | 1261.5      | 99.1         | 348.7                | 1.300       | 746.9       | 137.0        | 36.9            |
| 50.0                 | 38.000      | 1285.8      | 99.5         | 353.3                | 1.300       | 815.1       | 123.2        | 41.5            |
| 60.0                 | 38.000      | 1348.0      | 100.4        | 358.1                | 1.300       | 860.5       | 108.7        | 45.9            |
| 70.0                 | 38.000      | 1323.8      | 100.1        | 2.1                  | 1.300       | 948.9       | 92.7         | 51.7            |
| 80.0                 | 38.000      | 1271.9      | 99.3         | 5.3                  | 1.300       | 1036.3      | 76.0         | 57.4            |
| 90.0                 | 38.000      | 1265.7      | 99.2         | 8.1                  | 1.300       | 1112.4      | 59.0         | 63.5            |
| 100.0                | 38.000      | 1317.7      | 100.0        | 10.4                 | 1.300       | 1179.2      | 41.7         | 70.4            |
| 110.0                | 38.000      | 1298.3      | 99.7         | 6.2                  | 1.300       | 1061.6      | 24.5         | 77.6            |
| 120.0                | 38.000      | 1353.3      | 100.5        | 333.1                | 1.300       | 799.1       | 9.2          | 87.1            |
| 130.0                | 38.000      | 1374.9      | 100.7        | 245.7                | 1.300       | 1154.0      | 15.4         | 83.2            |
| 140.0                | 38.000      | 1366.3      | 100.6        | 235.0                | 1.300       | 1142.4      | 32.5         | 74.2            |
| 150.0                | 38.000      | 1306.3      | 99.8         | 236.0                | 1.300       | 1145.0      | 50.1         | 66.9            |
| 160.0                | 38.000      | 1101.0      | 96.3         | 241.2                | 1.300       | 1148.5      | 66.8         | 61.3            |
| 170.0                | 38.000      | 803.9       | 89.1         | 248.9                | 1.300       | 1153.4      | 81.4         | 56.7            |
| 180.0                | 38.000      | 723.0       | 86.4         | 253.0                | 1.300       | 1158.4      | 95.7         | 52.7            |
| 190.0                | 38.000      | 550.7       | 79.7         | 259.2                | 1.300       | 1151.5      | 107.1        | 49.2            |
| 200.0                | 38.000      | 836.5       | 90.1         | 257.9                | 1.300       | 1153.8      | 125.0        | 43.8            |
| 210.0                | 38.000      | 916.1       | 92.2         | 261.1                | 1.300       | 1147.2      | 139.2        | 39.9            |
| 220.0                | 38.000      | 907.1       | 92.0         | 265.4                | 1.300       | 1134.8      | 150.9        | 36.8            |
| 230.0                | 38.000      | 864.3       | 90.9         | 270.0                | 1.300       | 1106.0      | 160.8        | 34.1            |
| 240.0                | 38.000      | 723.3       | 86.4         | 275.2                | 1.300       | 1040.0      | 166.7        | 32.2            |
| 250.0                | 38.000      | 456.6       | 73.7         | 281.7                | 1.300       | 969.3       | 163.6        | 32.3            |
| 260.0                | 38.000      | 363.4       | 67.2         | 286.6                | 1.300       | 940.7       | 163.9        | 32.0            |
| 270.0                | 38.000      | 487.2       | 75.9         | 289.3                | 1.300       | 943.7       | 176.7        | 29.1            |
| 280.0                | 38.000      | 487.6       | 75.9         | 293.4                | 1.300       | 963.7       | 180.4        | 28.5            |
| 290.0                | 38.000      | 602.1       | 82.1         | 297.3                | 1.300       | 989.8       | 188.8        | 27.0            |
| 300.0                | 38.000      | 601.6       | 82.1         | 301.6                | 1.300       | 1004.8      | 189.9        | 27.0            |
| 310.0                | 38.000      | 554.8       | 79.9         | 305.9                | 1.300       | 1002.7      | 187.4        | 27.4            |
| 320.0                | 38.000      | 365.5       | 67.3         | 309.4                | 1.300       | 995.4       | 173.3        | 30.3            |
| 330.0                | 38.000      | 188.4       | 53.9         | 311.8                | 1.300       | 993.7       | 157.7        | 33.9            |
| 340.0                | 38.000      | 254.6       | 59.3         | 315.8                | 1.300       | 980.8       | 159.1        | 33.5            |
| 350.0                | 38.000      | 472.9       | 74.9         | 321.9                | 1.300       | 935.3       | 167.9        | 31.0            |



Contour protection of KKTO (LIC), Tahoe City, CA (BLED-19970902KB)

