

### Channel Study

| REFERENCE               |         | CH# 227D - 93.3 MHz, Pwr= 0.035 kW, HAAT= 265.9 M, COR= 658 M |              |                |                           |                           |                    |                   |                                    | DISPLAY DATES           |          |
|-------------------------|---------|---|--------------|----------------|---------------------------|---------------------------|--------------------|-------------------|------------------------------------|-------------------------|----------|
| 34 27 57.0 N.           |         | Average Protected F(50-50)= 12.9 km                           |              |                |                           |                           |                    |                   |                                    | DATA                    | 04-16-13 |
| 119 40 37.0 W.          |         | Omni-directional  |              |                |                           |                           |                    |                   |                                    | SEARCH                  | 04-16-13 |
| CH<br>CITY              | CALL    | TYPE  | ANT<br>STATE | AZI.<br><--    | DIST<br>FILE #            | LAT.<br>LNG.              | Pwr(kW)<br>HAAT(M) | INT(km)<br>COR(M) | PRO(km)<br>LICENSEE                | *IN*<br>(Overlap in km) | *OUT*    |
| 229B<br>Santa Barbara   | KDB     | LIC   | CX<br>CA     | 0.0<br>180.0   | 0.03<br>BMLH20070907AAQ   | 34 27 58.0<br>119 40 37.0 | 12.500<br>265      | 6.6<br>670        | 87.0<br>Pacific Broadcasting Compa | -10.9*                  | -87.8*   |
| 227D<br>Santa Barbara   | K227BI  | CP  | DV<br>CA     | 284.3<br>104.2 | 26.70<br>BPFT20130215AAG  | 34 31 30.0<br>119 57 34.0 | 0.060              | 89.9<br>1242      | 18.3<br>Educational Media Foundati | -79.4*                  | -61.9    |
| 227D<br>Santa Barbara   | K227BI  | LIC   | DV<br>CA     | 284.3<br>104.2 | 26.70<br>BLFT20050908ABY  | 34 31 30.0<br>119 57 34.0 | 0.010<br>928       | 64.6<br>1243      | 10.7<br>Educational Media Foundati | -54.1*                  | -52.8    |
| 227B<br>San Luis Obispo | KZOZ    | LIC   | CN<br>CA     | 318.4<br>137.8 | 133.68<br>BLH19961226KC   | 35 21 40.0<br>120 39 21.0 | 23.000<br>472      | 152.9<br>808      | 61.1<br>Agm California, Inc.       | -27.5*                  | 0.3      |
| 225B1<br>Montecito      | KJEE    | RSV-A   | CA           | 283.8<br>103.7 | 13.78                     | 34 29 43.0<br>119 49 23.0 | 25.000<br>100      | 2.7<br>475        | 31.4<br>Montecito, Fm, Inc         | -7.2*                   | -18.2*   |
| 225A<br>Montecito       | KJEE    | LIC   | CN<br>CA     | 0.0<br>0.0     | 0.00<br>BLH19940209KC     | 34 27 57.0<br>119 40 37.0 | 0.820<br>270       | 1.6<br>664        | 9.7<br>Montecito, Fm, Inc          | -5.9*                   | -10.1*   |
| 226B<br>Los Angeles     | KCBS-FM | LIC   | CX<br>CA     | 99.6<br>280.5  | 149.62<br>BLH20100818AAQ  | 34 13 55.0<br>118 04 18.0 | 27.500<br>1074     | 131.0<br>1975     | 105.4<br>Cbs Radio East Inc.       | 0.2                     | 1.8      |
| 225B1                   |         |   | CA           | 283.3<br>103.2 | 14.28                     | 34 29 43.0<br>119 49 43.0 | 0.000              | 0.0<br>0          | 0.0                                | 0.6                     | 13.7     |
| 225B1<br>Montecito      |         | RSV-M   | CA           | 283.8<br>103.7 | 13.78                     | 34 29 43.0<br>119 49 23.0 | 0.000              | 0.0<br>0          | 0.0                                | 0.7*                    | 13.2     |
| 224A<br>Thousand Oaks   | KLSI    | RSV-A   | CA           | 115.0<br>295.4 | 78.62                     | 34 09 53.0<br>118 54 08.0 | 6.000<br>100       | 3.9<br>392        | 42.8<br>Educational Media Foundati | 54.9                    | 34.9     |
| 224A<br>Thousand Oaks   | KLSI    | APP   | CX<br>CA     | 115.0<br>295.4 | 78.62<br>BPED20121227AAJ  | 34 09 53.0<br>118 54 08.0 | 1.400<br>208       | 2.4<br>505        | 37.5<br>Educational Media Foundati | 56.4                    | 40.4     |
| 224A<br>Thousand Oaks   | KLSI    | LIC   | C<br>CA      | 109.9<br>290.4 | 84.00<br>BMLED20121211ABG | 34 12 21.0<br>118 49 04.0 | 3.100<br>141       | 3.2<br>478        | 40.1<br>Educational Media Foundati | 61.3                    | 43.4     |

Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference Zone=East Zone 2A, Co to 3rd adjacent.  
All separation margins (if shown) include rounding  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside protected contour.  
Reference station has protected zone issue:

**Compliance with C.F.R. 74.1204**

The proposed FM Translator is located within the protected 60 dBu contour of second adjacent channel station KDB, channel 229B, Santa Barbara, CA. The predicted F(50,50) field strength of KDB at the proposed translator site is 126.3 dBu. Therefore, the respective predicted interfering contour generated by the proposed FM Translator is 166.3 dBu. This interfering contour extends less than one meter from the proposed transmit antenna, and the area of overlap does not reach the ground because the antenna will be mounted 3 meters above ground (see Exhibit 13 – A 1).

To confirm the absence of population within the interference aperture, Educational Media Foundation (“EMF”) has examined the attached Google Earth map (see Exhibit 13 – A 2), which indicates there are no regularly occupied structures which could be tall enough to enter the interference aperture.

Therefore, EMF respectfully requests a waiver of C.F.R. 74.1204 based on no population within the area of predicted interference.

EXHIBIT 13 - A1  
74.1204(d) Showing  
K227BI  
SANTA BARBARA, CA

ERP (kw): 0.035  
Height of Antenna above Ground (m): 3  
Translator's IX Contour: 166.3  
Antenna Type: JLCP-1

| <u>Depression Angle<br/>from Horizon</u> | <u>Antenna<br/>Relative Field</u> | <u>ERP (kw)<br/>from the Antenna RF</u> | <u>Dist. To IX Contour (m)</u> | <u>Height IX Contour Above<br/>Ground (m)</u> |
|--|-----------------------------------|---|--------------------------------|---|
| 0  | 1.000                             | 0.0350                                  | 0.2009                         | 3.000   |
| 5  | 0.994                             | 0.0346                                  | 0.1997                         | 2.983   |
| 10                                       | 0.975                             | 0.0333                                  | 0.1959                         | 2.966   |
| 15                                       | 0.940                             | 0.0309                                  | 0.1889                         | 2.951   |
| 20                                       | 0.910                             | 0.0290                                  | 0.1828                         | 2.937   |
| 25                                       | 0.880                             | 0.0271                                  | 0.1768                         | 2.925   |
| 30                                       | 0.840                             | 0.0247                                  | 0.1688                         | 2.916   |
| 35                                       | 0.770                             | 0.0208                                  | 0.1547                         | 2.911   |
| 40                                       | 0.710                             | 0.0176                                  | 0.1427                         | 2.908   |
| 45                                       | 0.650                             | 0.0148                                  | 0.1306                         | 2.908   |
| 50                                       | 0.600                             | 0.0126                                  | 0.1206                         | 2.908   |
| 55                                       | 0.520                             | 0.0095                                  | 0.1045                         | 2.914   |
| 60                                       | 0.450                             | 0.0071                                  | 0.0904                         | 2.922   |
| 65                                       | 0.380                             | 0.0051                                  | 0.0764                         | 2.931   |
| 70                                       | 0.320                             | 0.0036                                  | 0.0643                         | 2.940   |
| 75                                       | 0.250                             | 0.0022                                  | 0.0502                         | 2.951   |
| 80                                       | 0.180                             | 0.0011                                  | 0.0362                         | 2.964   |
| 85                                       | 0.140                             | 0.0007                                  | 0.0281                         | 2.972   |
| 90                                       | 0.010                             | 0.0000                                  | 0.0020                         | 2.998   |



Google earth



NAD27 COORDINATES

34 27 57 N

119 40 37 W

**Compliance with C.F.R. 74.1204**

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K227BI  
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| <u>Depression Angle<br/>from Horizon</u> | <u>Antenna<br/>Relative Field</u> | <u>ERP (kw)<br/>from the Antenna RF</u> | <u>Dist. To IX Contour (m)</u> | <u>Height IX Contour Above<br/>Ground (m)</u> |
|--|-----------------------------------|---|--------------------------------|---|
| 0  | 1.000                             | 0.0350                                  | 0.1964                         | 3.000   |
| 5  | 0.994                             | 0.0346                                  | 0.1952                         | 2.983   |
| 10                                       | 0.975                             | 0.0333                                  | 0.1914                         | 2.967   |
| 15                                       | 0.940                             | 0.0309                                  | 0.1846                         | 2.952   |
| 20                                       | 0.910                             | 0.0290                                  | 0.1787                         | 2.939   |
| 25                                       | 0.880                             | 0.0271                                  | 0.1728                         | 2.927   |
| 30                                       | 0.840                             | 0.0247                                  | 0.1649                         | 2.918   |
| 35                                       | 0.770                             | 0.0208                                  | 0.1512                         | 2.913   |
| 40                                       | 0.710                             | 0.0176                                  | 0.1394                         | 2.910   |
| 45                                       | 0.650                             | 0.0148                                  | 0.1276                         | 2.910   |
| 50                                       | 0.600                             | 0.0126                                  | 0.1178                         | 2.910   |
| 55                                       | 0.520                             | 0.0095                                  | 0.1021                         | 2.916   |
| 60                                       | 0.450                             | 0.0071                                  | 0.0884                         | 2.923   |
| 65                                       | 0.380                             | 0.0051                                  | 0.0746                         | 2.932   |
| 70                                       | 0.320                             | 0.0036                                  | 0.0628                         | 2.941   |
| 75                                       | 0.250                             | 0.0022                                  | 0.0491                         | 2.953   |
| 80                                       | 0.180                             | 0.0011                                  | 0.0353                         | 2.965   |
| 85                                       | 0.140                             | 0.0007                                  | 0.0275                         | 2.973   |
| 90                                       | 0.010                             | 0.0000                                  | 0.0020                         | 2.998   |