**Educational Media Foundation**
5700 West Oaks Boulevard
Rocklin, CA 95765

*Exhibit 13*
*Santa Barbara, CA*

# Channel Study

REFERENCE — CH# 227D - 93.3 MHz, Pwr= 0.06 kW DA, HAAT= 926.5 M, COR= 1242 M — DISPLAY DATES
34 31 30.0 N. — Average Protected F(50-50)= 28.2 km — DATA 01-28-13
119 57 34.0 W. — Standard Directional — SEARCH 01-28-13

| CH CALL / CITY | TYPE ANT / STATE | AZI. DIST <-- / FILE # | LAT. / LNG. | Pwr(kW) HAAT(M) | INT(km) COR(M) | PRO(km) LICENSEE | *IN* (Overlap in km) | *OUT* |
|---|---|---|---|---|---|---|---|---|
| 227B KZOZ<br>San Luis Obispo | LIC CN<br>CA | 325.9 112.55<br>145.5 BLH19961226KC | 35 21 40.0<br>120 39 21.0 | 23.000<br>472 | 154.2<br>808 | 79.7<br>Agm California, Inc. | -43.3* | 0.4 |
| 229B KDB<br>Santa Barbara | LIC CX<br>CA | 104.1 26.70<br>284.3 BMLH20070907AAQ | 34 27 58.0<br>119 40 37.0 | 12.500<br>265 | 4.5<br>670 | 56.0<br>Pacific Broadcasting Compa | -1.9 | -30.1* |
| 225B1 KJEE<br>Montecito | RSV-A<br>CA | 104.8 12.92<br>284.9 | 34 29 43.0<br>119 49 23.0 | 25.000<br>100 | 2.3<br>455 | 26.5<br>Montecito, Fm, Inc | -8.0* | -14.1* |
| 227D K227BI<br>Santa Barbara | LIC DV<br>CA | 0.0 0.00<br>0.0 BLFT20050908ABY | 34 31 30.0<br>119 57 34.0 | 0.010<br>928 | 5.1<br>1243 | 0.6<br>Educational Media Foundati | -6.5* | -11.7* |
| 225B1 | <br>CA | 105.4 12.43<br>285.5 | 34 29 43.0<br>119 49 43.0 | 0.000<br>0 | 0.0 | 0.0 | -6.7* | 11.9 |
| 225B1<br>Montecito | RSV-M<br>CA | 104.8 12.92<br>284.9 | 34 29 43.0<br>119 49 23.0 | 0.000<br>0 | 0.0 | 0.0 | -5.8* | 12.4 |
| 225A KJEE<br>Montecito | LIC CN<br>CA | 104.2 26.70<br>284.3 BLH19940209KC | 34 27 57.0<br>119 40 37.0 | 0.820<br>270 | 1.9<br>664 | 23.7<br>Montecito, Fm, Inc | 2.7 | 0.3 |
| 226B KCBS-FM<br>Los Angeles | LIC CX<br>CA | 100.1 176.25<br>281.2 BLH20100818AAQ | 34 13 55.0<br>118 04 18.0 | 27.500<br>1074 | 131.6<br>1975 | 105.1<br>Cbs Radio East Inc. | 19.2 | 13.6 |
| 225D K225AO<br>Lompoc | LIC C<br>CA | 280.4 49.17<br>100.1 BLFT20070517AJT | 34 36 13.0<br>120 29 17.0 | 0.005<br>313 | 0.2<br>463 | 7.2<br>Educational Media Foundati | 46.9 | 40.6 |

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.

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## 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, California. According to 74.1204(a)(3), in order to protect second and third adjacent facilities, the difference in dBu between the two facilities must not exceed 40dBu.

| | |
|---|---|
| The proposed ERP for K227BI: | 60 watts |
| The proposed COR for K227BI: | 36 meters |
| KDB F(50/50) contour at proposed site: | 69.5 dBu |
| The F(50/10) contour of proposed K227BI | 109.5 dBu |

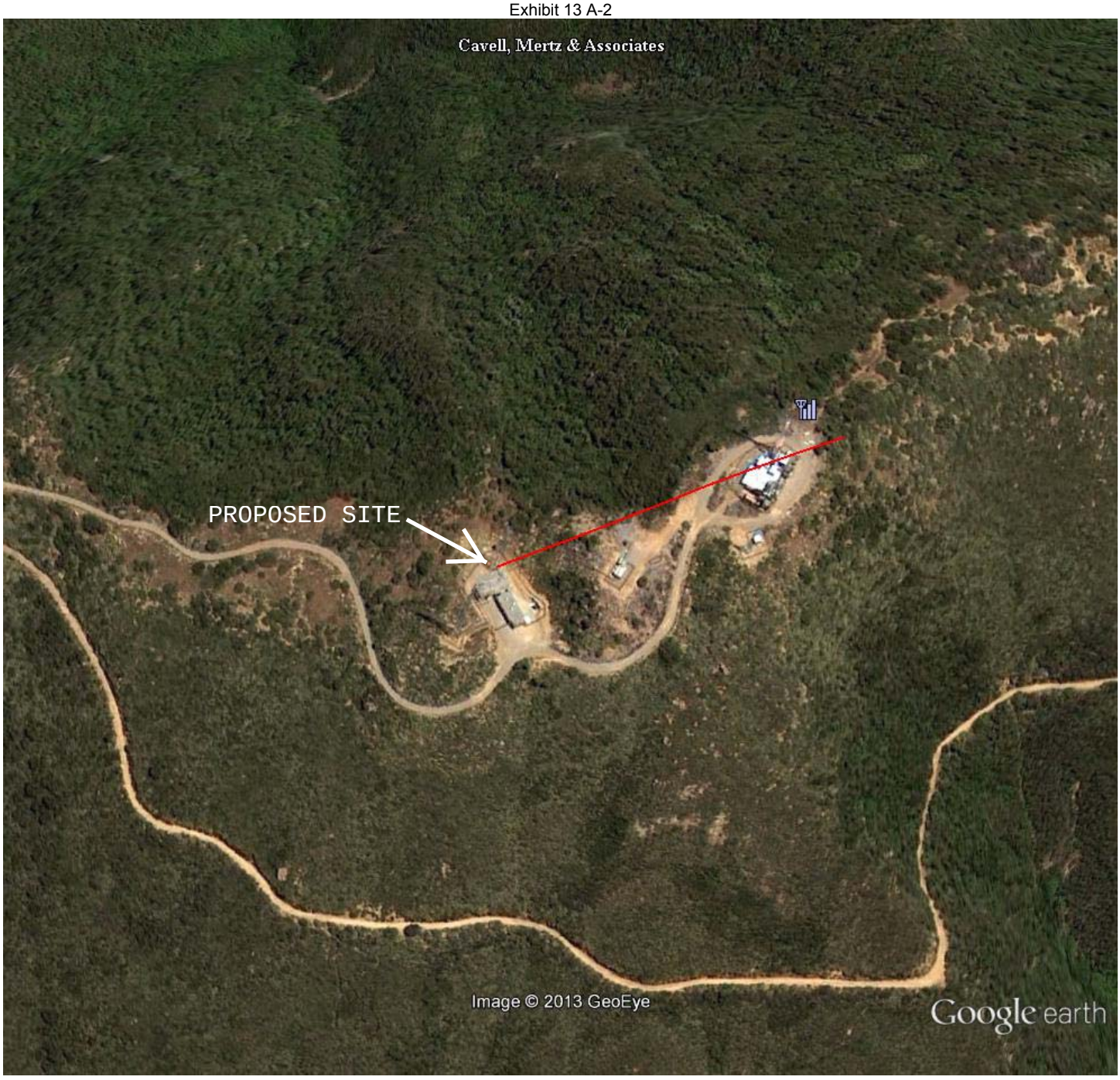
It has been determined that by taking into account the antenna vertical elevation pattern for the Scala CL-FM/V, 2 bays spaced 0.875 wave lengths apart, that the predicted interfering contour will not actually reach the ground (see exhibit 13 A-1). The maximum distance to the interference contour is 182 meters. Please see Exhibit 13 A-2 for an aerial photo of the area that shows there are no regularly occupied buildings tall enough to enter the predicted interference area.

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):** 0.06
**Height of Antenna above Ground (m):** 36
**Translator's IX Contour:** 109.5
**Antenna Type:** Scala CLFM-V 2bays 0.875 wave spaced

| Depression Angle from Horizon | Antenna Relative Field | ERP (kw) from the Antenna RF | Dist. To IX Contour (m) | Height IX Contour Above Ground (m) |
|---|---|---|---|---|
| 0 | 1.000 | 0.0600 | 182.0018 | 36.000 |
| 5 | 0.952 | 0.0544 | 173.2657 | 20.899 |
| 10 | 0.844 | 0.0427 | 153.6095 | 9.326 |
| 15 | 0.678 | 0.0276 | 123.3972 | 4.062 |
| 20 | 0.484 | 0.0141 | 88.0889 | 5.872 |
| 25 | 0.292 | 0.0051 | 53.1445 | 13.540 |
| 30 | 0.126 | 0.0010 | 22.9322 | 24.534 |
| 35 | 0.010 | 0.0000 | 1.8200 | 34.956 |
| 40 | 0.092 | 0.0005 | 16.7442 | 25.237 |
| 45 | 0.131 | 0.0010 | 23.8422 | 19.141 |
| 50 | 0.127 | 0.0010 | 23.1142 | 18.293 |
| 55 | 0.098 | 0.0006 | 17.8362 | 21.389 |
| 60 | 0.062 | 0.0002 | 11.2841 | 26.228 |
| 65 | 0.036 | 0.0001 | 6.5521 | 30.062 |
| 70 | 0.017 | 0.0000 | 3.0940 | 33.093 |
| 75 | 0.010 | 0.0000 | 1.8200 | 34.242 |
| 80 | 0.010 | 0.0000 | 1.8200 | 34.208 |
| 85 | 0.010 | 0.0000 | 1.8200 | 34.187 |
| 90 | 0.100 | 0.0006 | 18.2002 | 17.800 |




Google earth

feet 1000
meters 300

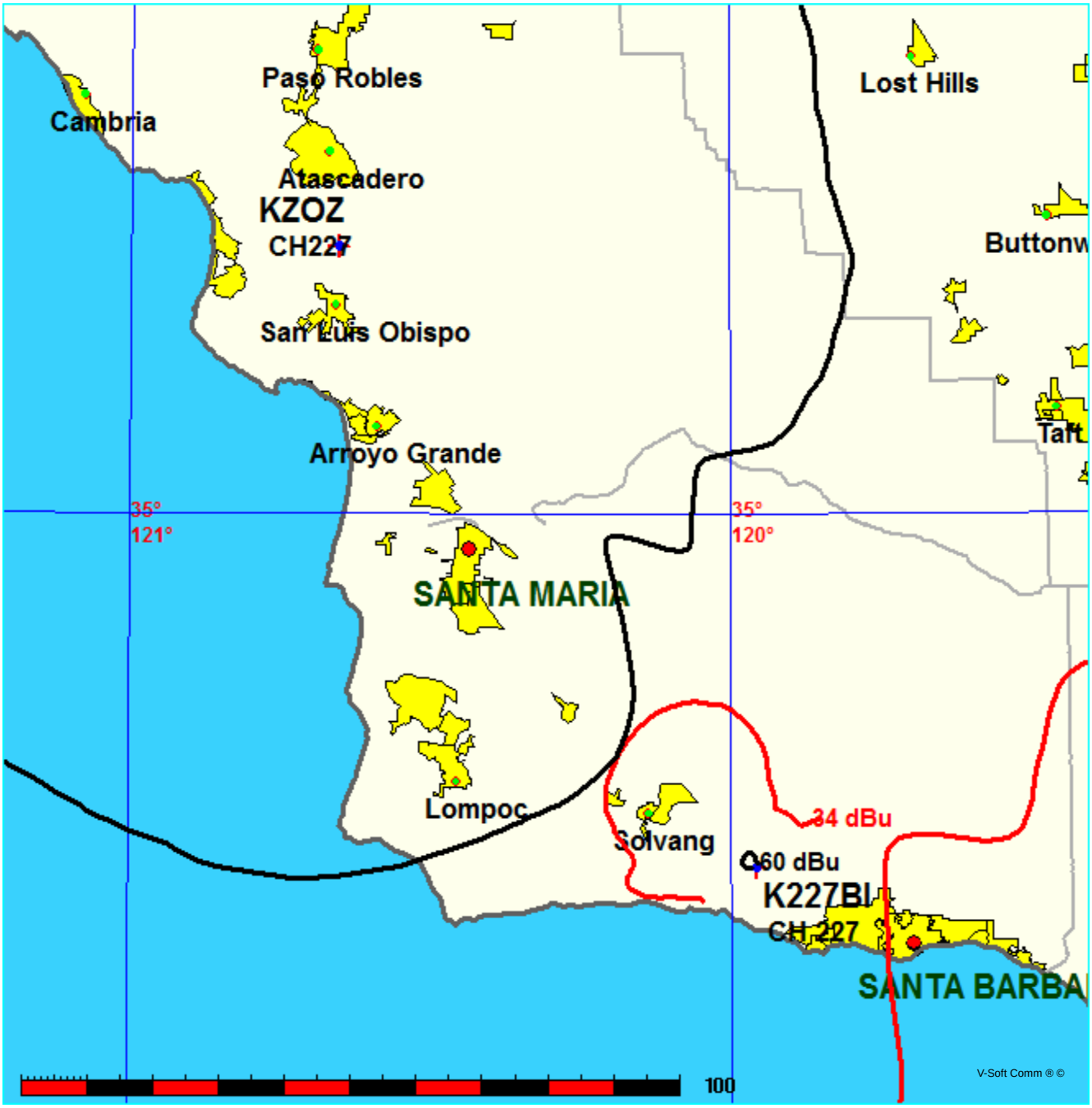
NAD27 COORDINATES
34 31 30 N,
119 57 34 W
LINE MEASURE IS 182M FROM THE TOWER BASE

Exhibit 13 B
Educational Media Foundation

FMCommander Single Allocation Study - 01-28-2013 - NGDC 30 SEC
K227BI's Overlaps (In= -43.33 km, Out= 0.42 km)

K227BI CH 227 D DA
Lat= 34 31 30.0, Lng= 119 57 34.0
0.06 kW 926.5 M HAAT, 1242 M COR
Prot.= 60 dBu, Intef.= 34 dBu

KZOZ CH 227 B BLH19961226KC
Lat= 35 21 40.0, Lng= 120 39 21.0
23.0 kW 472 M HAAT, 808 M COR
Prot.= 54 dBu, Intef.= 40 dBu



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## KZOZ AND K227BI

01-28-2013 Terrain Data: NGDC 30 SEC FMOver Analysis

| KZOZ BLH19961226KC | K227BI |
|---|---|
| Channel = 227B | Channel = 227D |
| Max ERP = 23 kW | Max ERP = 0.06 kW |
| RCAMSL = 808 M | RCAMSL = 1242 M |
| N. Lat. 35 21 40.0 | N. Lat. 34 31 30.0 |
| W. Lng. 120 39 21.0 | W. Lng. 119 57 34.0 |
| Protected | Interfering |
| 54 dBu | 34 dBu |

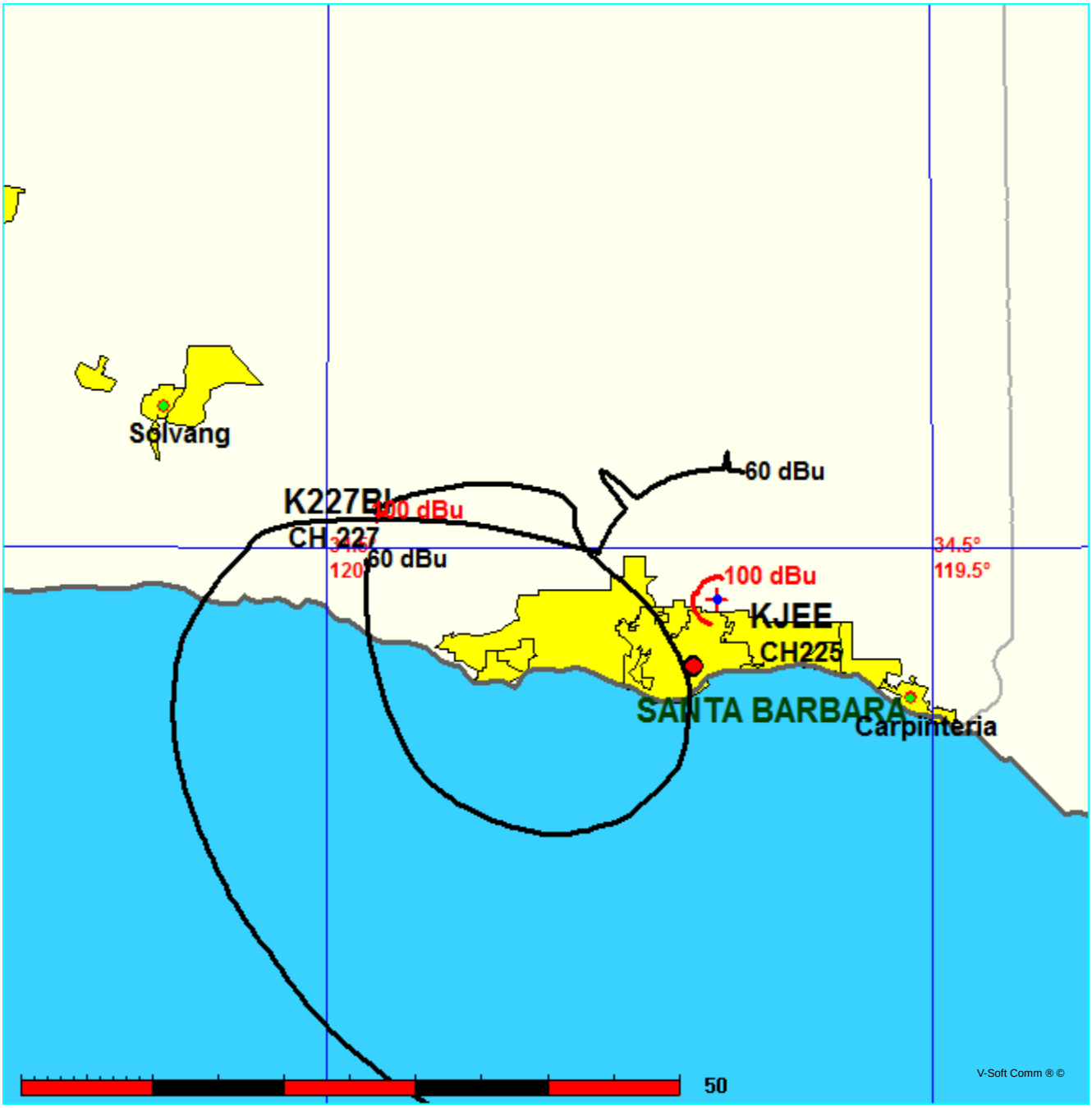
| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) | IX (km) |
|---|---|---|---|---|---|---|---|---|---|
| 145.0 | 023.0000 | 0394.8 | 078.5 | 326.7 | 000.0001 | 0963.1 | 034.2 | 30.57 | |
| 146.0 | 023.0000 | 0427.6 | 080.9 | 324.3 | 000.0001 | 0963.1 | 031.7 | 31.70 | |
| 147.0 | 023.0000 | 0453.6 | 082.8 | 321.4 | 000.0001 | 0960.4 | 029.9 | 32.56 | |
| 148.0 | 023.0000 | 0474.0 | 084.2 | 318.1 | 000.0001 | 0953.5 | 028.7 | 33.12 | |
| 149.0 | 023.0000 | 0492.9 | 085.4 | 314.7 | 000.0001 | 0945.6 | 027.9 | 33.51 | |
| 150.0 | 023.0000 | 0511.9 | 086.6 | 311.0 | 000.0001 | 0934.1 | 027.2 | 33.76 | |
| 151.0 | 023.0000 | 0528.7 | 087.5 | 307.2 | 000.0001 | 0908.8 | 026.8 | 33.75 | |
| 152.0 | 023.0000 | 0540.5 | 088.2 | 303.7 | 000.0001 | 0884.2 | 026.9 | 33.50 | |
| 153.0 | 023.0000 | 0548.1 | 088.6 | 300.4 | 000.0001 | 0869.4 | 027.3 | 33.13 | |
| 154.0 | 023.0000 | 0555.2 | 089.0 | 297.3 | 000.0001 | 0841.7 | 027.9 | 32.56 | |
| 155.0 | 023.0000 | 0563.0 | 089.4 | 294.4 | 000.0001 | 0802.7 | 028.6 | 31.82 | |
| 156.0 | 023.0000 | 0570.6 | 089.7 | 291.6 | 000.0001 | 0770.2 | 029.4 | 31.06 | |
| 157.0 | 023.0000 | 0576.3 | 090.0 | 289.2 | 000.0001 | 0731.6 | 030.4 | 30.09 | |

Exhibit 13 C
Educational Media Foundation

FMCommander Single Allocation Study - 01-28-2013 - NGDC 30 SEC
K227BI's Overlaps (In= 2.72 km, Out= 0.32 km)

K227BI CH 227 D DA
Lat= 34 31 30.0, Lng= 119 57 34.0
0.06 kW 926.5 M HAAT, 1242 M COR
Prot.= 60 dBu, Intef.= 100 dBu

KJEE CH 225 A BLH19940209KC
Lat= 34 27 57.0, Lng= 119 40 37.0
0.82 kW 270 M HAAT, 664 M COR
Prot.= 60 dBu, Intef.= 100 dBu



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## KJEE AND K227BI

01-28-2013 Terrain Data: NGDC 30 SEC FMOver Analysis

KJEE BLH19940209KC

Channel = 225A
Max ERP = 0.82 kW
RCAMSL = 664 M
N. Lat. 34 27 57.0
W. Lng. 119 40 37.0
Protected
60 dBu

K227BI

Channel = 227D
Max ERP = 0.06 kW
RCAMSL = 1242 M
N. Lat. 34 31 30.0
W. Lng. 119 57 34.0
Interfering
100 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) | IX (km) |
|---|---|---|---|---|---|---|---|---|---|
| 224.0 | 000.8200 | 0625.0 | 043.6 | 186.5 | 000.0012 | 1174.1 | 038.3 | 41.54 | |
| 225.0 | 000.8200 | 0624.0 | 043.6 | 187.3 | 000.0010 | 1174.2 | 037.8 | 40.92 | |
| 226.0 | 000.8200 | 0622.6 | 043.5 | 188.2 | 000.0008 | 1174.1 | 037.3 | 40.11 | |
| 227.0 | 000.8200 | 0620.7 | 043.5 | 189.1 | 000.0006 | 1173.6 | 036.8 | 39.18 | |
| 228.0 | 000.8200 | 0618.3 | 043.4 | 189.9 | 000.0004 | 1172.9 | 036.2 | 38.08 | |
| 229.0 | 000.8200 | 0615.9 | 043.3 | 190.8 | 000.0004 | 1172.1 | 035.7 | 37.67 | |
| 230.0 | 000.8200 | 0613.9 | 043.2 | 191.7 | 000.0003 | 1171.1 | 035.2 | 37.24 | |
| 231.0 | 000.8200 | 0612.4 | 043.2 | 192.6 | 000.0003 | 1169.9 | 034.7 | 36.73 | |
| 232.0 | 000.8200 | 0612.0 | 043.2 | 193.6 | 000.0002 | 1168.5 | 034.2 | 36.09 | |
| 233.0 | 000.8200 | 0612.1 | 043.2 | 194.6 | 000.0002 | 1167.2 | 033.7 | 35.33 | |
| 234.0 | 000.8200 | 0612.6 | 043.2 | 195.6 | 000.0001 | 1165.9 | 033.3 | 34.40 | |
| 235.0 | 000.8200 | 0613.3 | 043.2 | 196.7 | 000.0001 | 1164.9 | 032.8 | 33.28 | |
| 236.0 | 000.8200 | 0614.0 | 043.2 | 197.8 | 000.0001 | 1164.3 | 032.4 | 31.89 | |
| 237.0 | 000.8200 | 0614.3 | 043.3 | 198.8 | 000.0000 | 1164.2 | 031.9 | 30.16 | |
| 238.0 | 000.8200 | 0614.2 | 043.3 | 199.9 | 000.0000 | 1164.5 | 031.4 | 27.86 | |
| 239.0 | 000.8200 | 0613.7 | 043.2 | 201.0 | 000.0000 | 1165.0 | 030.9 | 27.36 | |
| 240.0 | 000.8200 | 0613.0 | 043.2 | 202.0 | 000.0000 | 1165.5 | 030.5 | 27.09 | |
| 241.0 | 000.8200 | 0612.1 | 043.2 | 203.1 | 000.0000 | 1166.1 | 030.0 | 26.78 | |
| 242.0 | 000.8200 | 0611.3 | 043.1 | 204.3 | 000.0000 | 1166.6 | 029.5 | 26.42 | |
| 243.0 | 000.8200 | 0610.4 | 043.1 | 205.4 | 000.0000 | 1166.6 | 029.0 | 26.01 | |
| 244.0 | 000.8200 | 0609.6 | 043.1 | 206.5 | 000.0000 | 1166.0 | 028.5 | 25.53 | |
| 245.0 | 000.8200 | 0608.9 | 043.1 | 207.7 | 000.0000 | 1164.8 | 028.0 | 24.95 | |
| 246.0 | 000.8200 | 0608.5 | 043.0 | 208.9 | 000.0000 | 1162.7 | 027.6 | 24.26 | |
| 247.0 | 000.8200 | 0608.3 | 043.0 | 210.2 | 000.0000 | 1160.0 | 027.1 | 23.60 | |
| 248.0 | 000.8200 | 0608.1 | 043.0 | 211.5 | 000.0000 | 1156.9 | 026.6 | 23.81 | |
| 249.0 | 000.8200 | 0607.6 | 043.0 | 212.8 | 000.0000 | 1153.8 | 026.2 | 24.02 | |
| 250.0 | 000.8200 | 0606.7 | 043.0 | 214.1 | 000.0000 | 1151.3 | 025.7 | 24.24 | |
| 251.0 | 000.8200 | 0605.5 | 042.9 | 215.4 | 000.0000 | 1148.8 | 025.2 | 24.47 | |
| 252.0 | 000.8200 | 0603.9 | 042.9 | 216.7 | 000.0000 | 1146.5 | 024.8 | 24.70 | |
| 253.0 | 000.8200 | 0602.1 | 042.8 | 218.1 | 000.0000 | 1143.8 | 024.3 | 24.94 | |
| 254.0 | 000.8200 | 0600.1 | 042.8 | 219.4 | 000.0000 | 1139.9 | 023.8 | 25.17 | |
| 255.0 | 000.8200 | 0598.1 | 042.7 | 220.8 | 000.0000 | 1135.6 | 023.3 | 25.40 | |
| 256.0 | 000.8200 | 0595.8 | 042.6 | 222.3 | 000.0000 | 1130.3 | 022.8 | 25.62 | |
| 257.0 | 000.8200 | 0592.9 | 042.5 | 223.7 | 000.0000 | 1125.4 | 022.3 | 25.86 | |
| 258.0 | 000.8200 | 0589.3 | 042.4 | 225.1 | 000.0000 | 1120.3 | 021.8 | 26.11 | |
| 259.0 | 000.8200 | 0585.2 | 042.2 | 226.6 | 000.0000 | 1116.2 | 021.3 | 26.38 | |
| 260.0 | 000.8200 | 0580.6 | 042.1 | 228.0 | 000.0000 | 1111.8 | 020.8 | 26.65 | |
| 261.0 | 000.8200 | 0576.0 | 041.9 | 229.5 | 000.0000 | 1107.5 | 020.2 | 26.93 | |
| 262.0 | 000.8200 | 0571.4 | 041.7 | 231.0 | 000.0000 | 1103.9 | 019.7 | 27.21 | |
| 263.0 | 000.8200 | 0566.4 | 041.5 | 232.6 | 000.0000 | 1100.2 | 019.2 | 27.50 | |
| 264.0 | 000.8200 | 0560.0 | 041.3 | 234.1 | 000.0000 | 1096.5 | 018.6 | 27.82 | |
| 265.0 | 000.8200 | 0553.1 | 041.0 | 235.6 | 000.0000 | 1092.2 | 018.0 | 28.15 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 266.0 | 000.8200 | 0546.1 | 040.7 | 237.2 | 000.0000 | 1085.5 | 017.4 | 28.48 |
| 267.0 | 000.8200 | 0537.6 | 040.3 | 238.7 | 000.0000 | 1076.3 | 016.7 | 28.85 |
| 268.0 | 000.8200 | 0528.0 | 039.9 | 240.1 | 000.0000 | 1065.5 | 016.0 | 29.29 |
| 269.0 | 000.8200 | 0518.3 | 039.4 | 241.6 | 000.0000 | 1055.1 | 015.3 | 30.32 |
| 270.0 | 000.8200 | 0508.6 | 039.0 | 243.2 | 000.0000 | 1048.6 | 014.6 | 30.87 |
| 271.0 | 000.8200 | 0498.1 | 038.5 | 244.8 | 000.0000 | 1044.4 | 013.9 | 31.97 |
| 272.0 | 000.8200 | 0485.9 | 038.0 | 246.4 | 000.0000 | 1035.2 | 013.1 | 33.07 |
| 273.0 | 000.8200 | 0473.4 | 037.5 | 248.0 | 000.0000 | 1020.5 | 012.3 | 34.19 |
| 274.0 | 000.8200 | 0460.8 | 036.9 | 249.8 | 000.0000 | 1005.3 | 011.6 | 35.34 |
| 275.0 | 000.8200 | 0448.1 | 036.4 | 251.7 | 000.0000 | 0987.5 | 010.8 | 36.99 |
| 276.0 | 000.8200 | 0438.4 | 036.0 | 254.1 | 000.0000 | 0959.6 | 010.2 | 38.66 |
| 277.0 | 000.8200 | 0430.2 | 035.6 | 256.7 | 000.0000 | 0914.3 | 009.7 | 40.25 |
| 278.0 | 000.8200 | 0414.4 | 035.0 | 259.0 | 000.0000 | 0876.9 | 008.9 | 41.93 |
| 279.0 | 000.8200 | 0388.0 | 034.0 | 260.7 | 000.0000 | 0842.5 | 007.7 | 43.86 |
| 280.0 | 000.8200 | 0354.6 | 032.5 | 261.5 | 000.0000 | 0821.7 | 006.2 | 46.39 |
| 281.0 | 000.8200 | 0316.1 | 030.6 | 259.9 | 000.0000 | 0861.1 | 004.1 | 49.58 |
| 282.0 | 000.8200 | 0273.6 | 028.5 | 251.5 | 000.0000 | 0989.6 | 002.0 | 52.81 |
| 283.0 | 000.8200 | 0232.8 | 026.4 | 161.7 | 000.0228 | 1148.9 | 000.7 | 94.13 |
| 284.0 | 000.8200 | 0195.2 | 024.3 | 106.2 | 000.0341 | 0606.5 | 002.5 | 84.03 |
| 285.0 | 000.8200 | 0162.6 | 022.4 | 100.1 | 000.0251 | 0497.5 | 004.3 | 76.99 |
| 286.0 | 000.8200 | 0134.1 | 020.5 | 098.4 | 000.0228 | 0497.2 | 006.3 | 72.40 |
| 287.0 | 000.8200 | 0108.2 | 018.4 | 098.1 | 000.0224 | 0498.5 | 008.4 | 69.11 |
| 288.0 | 000.8200 | 0083.8 | 015.9 | 098.7 | 000.0232 | 0496.5 | 010.9 | 65.74 |
| 289.0 | 000.8200 | 0061.8 | 013.7 | 099.2 | 000.0239 | 0495.8 | 013.2 | 63.04 |
| 290.0 | 000.8200 | 0041.2 | 011.2 | 100.0 | 000.0250 | 0497.2 | 015.6 | 60.87 |
| 291.0 | 000.8200 | 0022.7 | 009.7 | 100.4 | 000.0255 | 0498.9 | 017.2 | 59.72 |
| 292.0 | 000.8200 | 0004.7 | 009.7 | 099.8 | 000.0247 | 0496.6 | 017.2 | 59.53 |
| 293.0 | 000.8200 | -0013.3 | 009.7 | 099.3 | 000.0240 | 0495.9 | 017.2 | 59.36 |
| 294.0 | 000.8200 | -0031.8 | 009.7 | 098.7 | 000.0233 | 0496.4 | 017.3 | 59.20 |
| 295.0 | 000.8200 | -0051.4 | 009.7 | 098.2 | 000.0226 | 0498.0 | 017.3 | 59.05 |
| 296.0 | 000.8200 | -0071.6 | 009.7 | 097.7 | 000.0219 | 0500.8 | 017.4 | 58.92 |
| 297.0 | 000.8200 | -0091.3 | 009.7 | 097.1 | 000.0212 | 0504.4 | 017.4 | 58.79 |
| 298.0 | 000.8200 | -0106.3 | 009.7 | 096.6 | 000.0206 | 0509.0 | 017.5 | 58.68 |
| 299.0 | 000.8200 | -0114.7 | 009.7 | 096.1 | 000.0200 | 0513.8 | 017.5 | 58.56 |
| 300.0 | 000.8200 | -0114.3 | 009.7 | 095.6 | 000.0193 | 0517.9 | 017.6 | 58.43 |
| 301.0 | 000.8200 | -0108.1 | 009.7 | 095.1 | 000.0188 | 0521.5 | 017.7 | 58.29 |
| 302.0 | 000.8200 | -0098.0 | 009.7 | 094.6 | 000.0182 | 0525.1 | 017.8 | 58.15 |
| 303.0 | 000.8200 | -0086.5 | 009.7 | 094.1 | 000.0176 | 0528.9 | 017.8 | 58.01 |
| 304.0 | 000.8200 | -0072.5 | 009.7 | 093.7 | 000.0171 | 0533.1 | 017.9 | 57.88 |
| 305.0 | 000.8200 | -0055.9 | 009.7 | 093.2 | 000.0166 | 0540.5 | 018.0 | 57.79 |
| 306.0 | 000.8200 | -0039.4 | 009.7 | 092.7 | 000.0161 | 0550.1 | 018.1 | 57.75 |
| 307.0 | 000.8200 | -0025.8 | 009.7 | 092.3 | 000.0156 | 0559.5 | 018.2 | 57.70 |
| 308.0 | 000.8200 | -0016.2 | 009.7 | 091.9 | 000.0152 | 0568.7 | 018.3 | 57.65 |
| 309.0 | 000.8200 | -0007.9 | 009.7 | 091.4 | 000.0147 | 0577.7 | 018.4 | 57.59 |
| 310.0 | 000.8200 | 0000.0 | 009.7 | 091.0 | 000.0143 | 0586.6 | 018.5 | 57.53 |
| 311.0 | 000.8200 | 0006.9 | 009.7 | 090.6 | 000.0139 | 0595.2 | 018.6 | 57.47 |
| 312.0 | 000.8200 | 0012.7 | 009.7 | 090.2 | 000.0135 | 0603.6 | 018.7 | 57.39 |
| 313.0 | 000.8200 | 0018.2 | 009.7 | 089.8 | 000.0131 | 0612.6 | 018.8 | 57.31 |
| 314.0 | 000.8200 | 0026.5 | 009.7 | 089.5 | 000.0126 | 0623.1 | 018.9 | 57.22 |
| 315.0 | 000.8200 | 0038.1 | 010.8 | 086.6 | 000.0093 | 0705.4 | 018.3 | 57.43 |
| 316.0 | 000.8200 | 0049.6 | 012.3 | 082.4 | 000.0055 | 0805.1 | 017.5 | 56.57 |
| 317.0 | 000.8200 | 0055.7 | 013.0 | 080.0 | 000.0037 | 0828.9 | 017.3 | 55.26 |
| 318.0 | 000.8200 | 0052.9 | 012.7 | 080.5 | 000.0041 | 0824.3 | 017.6 | 55.32 |
| 319.0 | 000.8200 | 0043.3 | 011.5 | 083.3 | 000.0063 | 0788.0 | 018.5 | 56.34 |
| 320.0 | 000.8200 | 0032.5 | 010.0 | 086.7 | 000.0095 | 0702.4 | 019.5 | 56.58 |
| 321.0 | 000.8200 | 0023.8 | 009.7 | 087.2 | 000.0100 | 0688.3 | 019.8 | 56.41 |
| 322.0 | 000.8200 | 0021.4 | 009.7 | 086.9 | 000.0097 | 0696.3 | 020.0 | 56.27 |
| 323.0 | 000.8200 | 0022.7 | 009.7 | 086.6 | 000.0094 | 0704.0 | 020.1 | 56.12 |
| 324.0 | 000.8200 | 0023.8 | 009.7 | 086.4 | 000.0091 | 0711.1 | 020.2 | 55.98 |
| 325.0 | 000.8200 | 0021.4 | 009.7 | 086.1 | 000.0089 | 0718.3 | 020.4 | 55.83 |
| 326.0 | 000.8200 | 0017.1 | 009.7 | 085.9 | 000.0086 | 0724.7 | 020.5 | 55.67 |
| 327.0 | 000.8200 | 0011.3 | 009.7 | 085.6 | 000.0084 | 0731.0 | 020.7 | 55.52 |
| 328.0 | 000.8200 | 0005.9 | 009.7 | 085.4 | 000.0082 | 0737.2 | 020.8 | 55.36 |

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|---|---|---|---|---|---|---|---|---|---|
| 329.0 | 000.8200 | 0002.1 | 009.7 | 085.2 | 000.0080 | 0742.8 | 021.0 | 55.21 |
| 330.0 | 000.8200 | -0000.6 | 009.7 | 085.0 | 000.0078 | 0748.0 | 021.1 | 55.05 |
| 331.0 | 000.8200 | -0005.2 | 009.7 | 084.8 | 000.0076 | 0752.7 | 021.3 | 54.89 |
| 332.0 | 000.8200 | -0011.9 | 009.7 | 084.6 | 000.0074 | 0757.0 | 021.4 | 54.72 |
| 333.0 | 000.8200 | -0021.7 | 009.7 | 084.5 | 000.0073 | 0761.0 | 021.6 | 54.56 |
| 334.0 | 000.8200 | -0032.9 | 009.7 | 084.3 | 000.0071 | 0764.8 | 021.7 | 54.40 |
| 335.0 | 000.8200 | -0045.6 | 009.7 | 084.2 | 000.0070 | 0768.3 | 021.9 | 54.24 |
| 336.0 | 000.8200 | -0058.2 | 009.7 | 084.0 | 000.0069 | 0771.6 | 022.1 | 54.09 |
| 337.0 | 000.8200 | -0072.2 | 009.7 | 083.9 | 000.0067 | 0774.8 | 022.2 | 53.93 |
| 338.0 | 000.8200 | -0088.6 | 009.7 | 083.8 | 000.0066 | 0777.7 | 022.4 | 53.78 |
| 339.0 | 000.8200 | -0102.9 | 009.7 | 083.6 | 000.0065 | 0780.4 | 022.6 | 53.63 |
| 340.0 | 000.8200 | -0113.5 | 009.7 | 083.5 | 000.0064 | 0783.0 | 022.7 | 53.49 |
| 341.0 | 000.8200 | -0114.9 | 009.7 | 083.4 | 000.0064 | 0785.3 | 022.9 | 53.34 |
| 342.0 | 000.8200 | -0112.2 | 009.7 | 083.4 | 000.0063 | 0787.5 | 023.0 | 53.20 |
| 343.0 | 000.8200 | -0108.2 | 009.7 | 083.3 | 000.0062 | 0789.4 | 023.2 | 53.07 |