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Contour-to-Contour Channel Study - Proposed Translator

Arizona Western College

REFERENCE CH# 234D - 94.7 MHz, Pwr= 0.05 kW, HAAT= 45.0 M, COR= 97.7 M
32 40 58.0 N. Average Protected F(50-50)= 5.79 km
114 37 30.0 W. Omni-directional

DISPLAY DATES
DATA 07-12-17
SEARCH 07-13-17

| CH CITY | CALL | TYPE STATE | ANT AZI <-- | DIST FILE # | LAT LNG | PWR(kw) HAAT(M) | INT(km) COR(M) | PRO(km) LICENSEE | *OUT* (Overlap in km) |
|--|------|----------------|-------------------|--------------------------|---------------------------|--------------------|-------------------|------------------------------------|--------------------------|
| 236C2 KTTI Yuma | | LIC _CX AZ | 126.5 306.5 | 7.63 BLH20020819AAU | 32 38 31.0 114 33 34.0 | 50.000 75 | 4.6 137 | 42.9 Edb Vv License Llc | -35.7*<*** |
| 231B R29250 Murguia | | ADD ____ BN | 223.8 43.5 | 67.16 | 32 14 44.0 115 07 09.0 | 50.000 150 | 5.9 160 | 65.0 | 1.3 |
| Proposed by Mexico 971029-Restricted allotment limited to 40kw ERP and 62m HAAT or the equivalent along azimuth 288.86 degrees toward channel 231B in San Diego, CA-Objection by FCC 980316 9/26/2006: This allotment was later approved by FCC on 4/12/00 when Mexico agreed up classify San Diego as class C | | | | | | | | | |
| 233B KSEH Brawley | | LIC _CX CA | 287.0 106.5 | 88.10 BLH20020826AAQ | 32 54 40.0 115 31 40.0 | 50.000 92 | 68.6 63 | 55.8 Entravision Holdings, Llc | 19.5 |
| 235D K235BX Calxico | | LIC _V_ CA | 270.0 89.5 | 75.01 BLFT20150828AAW | 32 40 48.0 115 25 36.0 | 0.027 | 8.8 86 | 6.2 The Association For Commun | 59.2 |
| 232A R14926 Quartzsite | | DEL ____ AZ | 18.1 198.3 | 117.00 | 33 40 58.0 114 13 59.0 | 6.000 100 | 2.6 421 | 26.6 Southwest Fm Broadcasting | 87.5 |
| Involuntary channel substitution per BPH-20100813BHN - to Channel 243A | | | | | | | | | |
| 234B AL9532 San Felipe | | VAC ____ BN | 186.0 5.9 | 185.13 | 31 01 36.0 114 49 46.0 | 50.000 150 | 150.8 260 | 65.0 | 92.9 |
| 237C R11853 Tecate | | VAC ____ BN | 258.4 77.3 | 195.61 | 32 18 49.0 116 39 53.0 | 100.000 600 | 14.3 1114 | 92.0 | 103.1 |
| 5/10/2007: Proposed on channel 237C by Mexico in 2/27/2007 letter as a restricted allotment with limitations. 5/18/2007: Denied by IB letter dated 5/18/2007 for failure to adequately protect channel 236C in Yuma, AZ. 12/2/2008: Resubmitted by Mexico in 8/14/2007 letter. 12/4/2008: Accepted on channel 237C by IB in its 12/4/2008 letter as a restricted allotment limited to operating with 12.0 kw ERP and 957.0 m HAA T, or the equivalent, along the azimuths of: 317.02 deg in the direction of channel 235B, San Diego, CA; 32 3.39 deg in the direction of channel 239B, Carlsbad, CA; 14.08 deg in the direction of channel 238AA, Indian Wells, CA; and 78.99 deg in the direction of channel 236C, Yuma, CA. | | | | | | | | | |
| 234C0 KFLG-FM Big River | | LIC _CX CA | 10.8 191.0 | 211.58 BLH20080409ADN | 34 33 06.0 114 11 37.0 | 19.500 834 | 179.9 1462 | 85.2 Cameron Broadcasting, Inc. | 106.9 |

Terrain database is GLOBE 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= West Zone, 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)
Incoming contour overlap is ignored.
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
Reference station has protected zone issue: Mexico
<*** Protected using U/D see Xfield Exhibit

HOW TO READ THE FM COMPUTER PRINT-OUT

Translator Reference Station

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90. The column labeled "* OUT *" shows the greatest distance in kilometers of overlap (or smallest distance of clearance) between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap. Since translators are able to receive interference there is no "In" or incoming column in this report.

Listed antenna heights and power are the specific antenna heights and power from the FCC database.

Under the "AZI" column, the first row of numbers indicate the True North azimuths from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station. Bearings are calculated using spherical trigonometry.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships the minimum spacings the "OUT" columns change its significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column displays the **available clear space** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

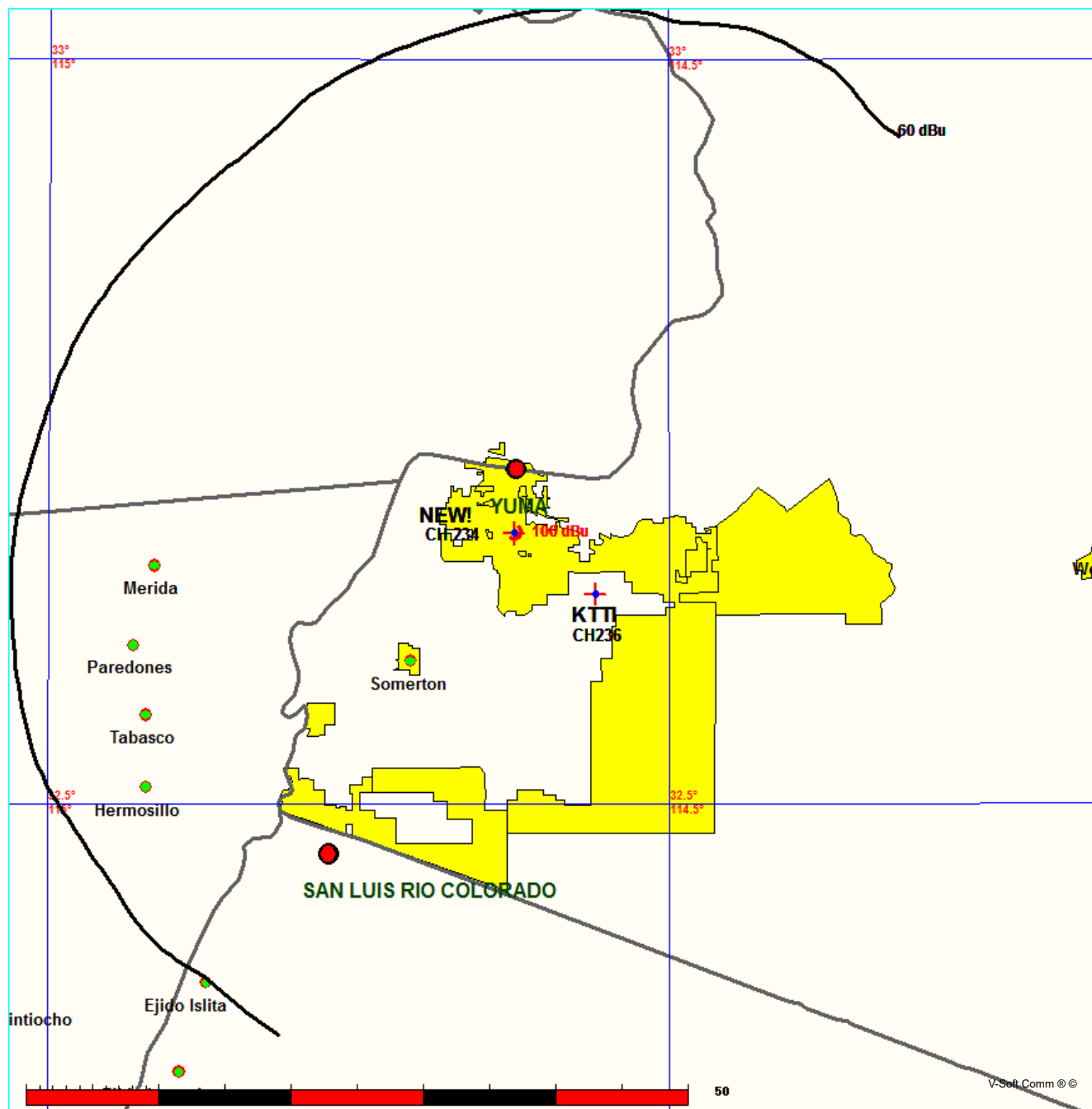
The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.

Contour-to-Contour Channel Study - KTTI
Arizona Western College

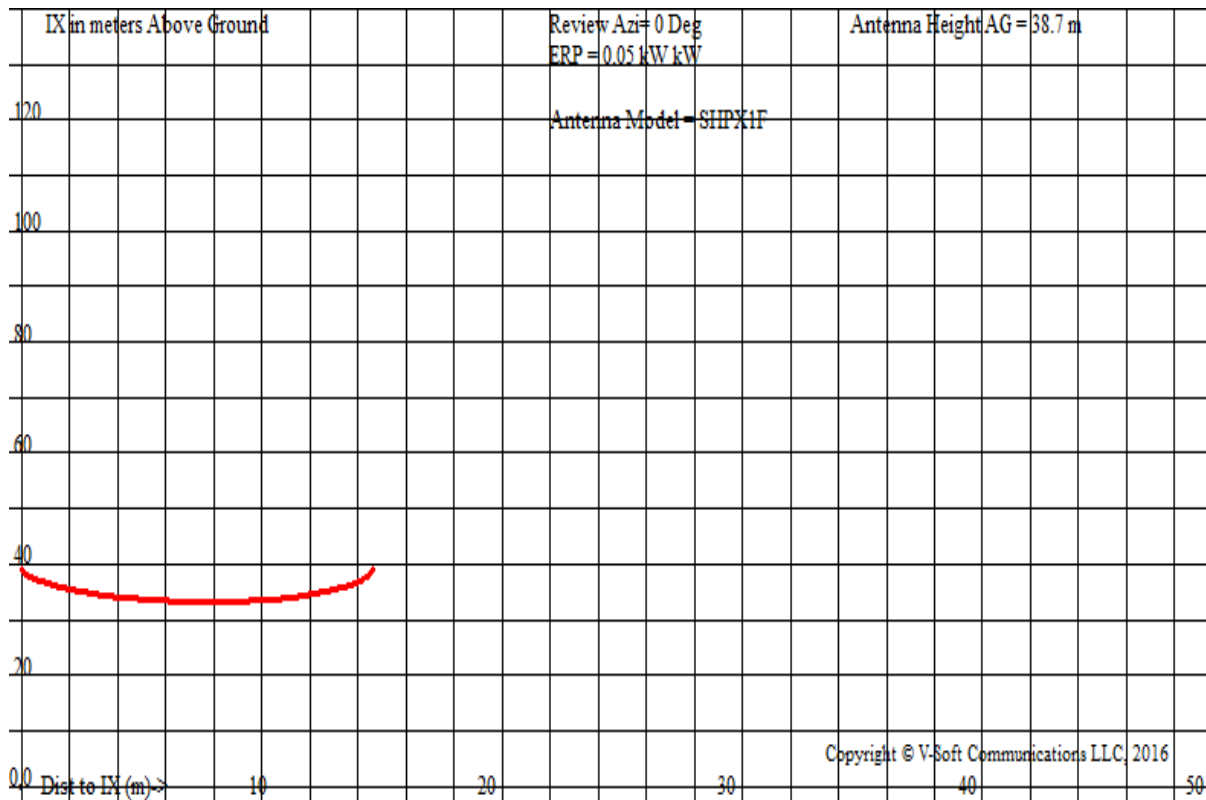
FMCommander Single Allocation Study - 07-13-2017 - GLOBE 30 Sec
NEW!'s Overlaps (In= -1.89 km, Out= -35.75 km)

NEW! CH 234 D
Lat= 32 40 58.0, Lng= 114 37 30.0
0.05 kW 45 m HAAT, 97.7 m COR
Prot.= 60 dBu, Intef.= 100 dBu

KTTI CH 236 C2 BLH20020819AAU
Lat= 32 38 31.0, Lng= 114 33 34.0
50.0 kW 75 m HAAT, 137 m COR
Prot.= 60 dBu, Intef.= 100 dBu



To Street Level



NEW! ,

74.1204(d) Showing

Translator or LPFM Maximum Licensed ERP = 0.05

Translator or LPFM Antenna Height AG = 38.7 Meters

NEW! Antenna Model = SHPX1F

Protected Station's Contour = 90.43201 dBu

Translator's or LPFM's full Interference contour 130.43201

Review Azimuth = 0 Degrees True

Relative Field on the horizon at Review Azimuth = 1.000

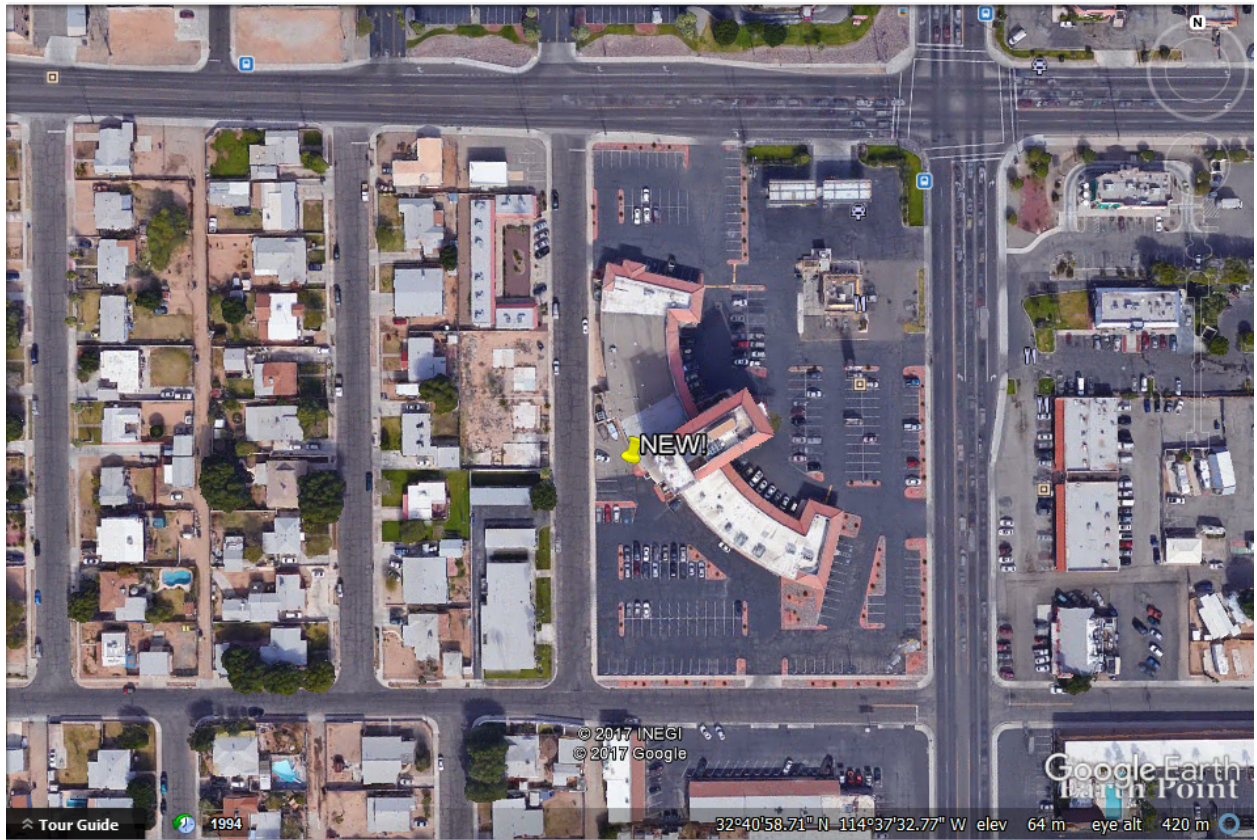
Translator/LPFM ERP on the horizon at Review Azimuth = 0.05 kW

Distance between stations = 7.6 km

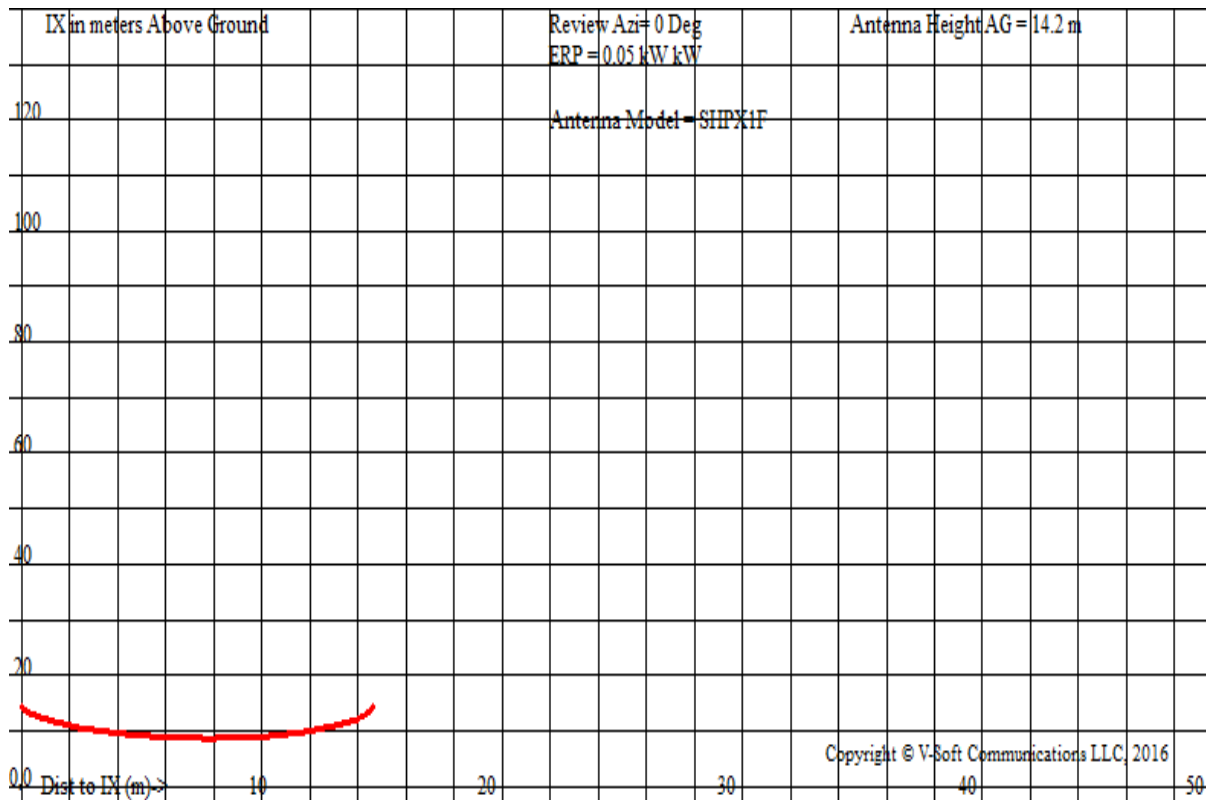
Protected Station= KTTI, 50 kW, 137 M Meters COR AMSL

| Depression Angle From Horizon(Deg) | Vertical Relative Field | Horizontal Relative Field | ERP (kw) | Dist to IX Contour Along Dep. Angle(m) | Dist to IX Contour From Tower Base(m) | Height IX Above Ground (m) |
|--|-------------------------------|---------------------------------|----------|--|---|----------------------------------|
| 00.0 | 1.0 | 1.0 | 0.0500 | 014.9240 | 014.9240 | 038.700 |
| 05.0 | 0.993 | 1.0 | 0.0493 | 014.8195 | 014.7631 | 037.408 |
| 10.0 | 0.974 | 1.0 | 0.0474 | 014.5360 | 014.3151 | 036.176 |
| 15.0 | 0.941 | 1.0 | 0.0443 | 014.0435 | 013.5649 | 035.065 |
| 20.0 | 0.897 | 1.0 | 0.0402 | 013.3868 | 012.5795 | 034.121 |
| 25.0 | 0.843 | 1.0 | 0.0355 | 012.5809 | 011.4022 | 033.383 |
| 30.0 | 0.780 | 1.0 | 0.0304 | 011.6407 | 010.0811 | 032.880 |
| 35.0 | 0.709 | 1.0 | 0.0251 | 010.5811 | 008.6675 | 032.631 |
| 40.0 | 0.633 | 1.0 | 0.0200 | 009.4469 | 007.2367 | 032.628 |
| 45.0 | 0.554 | 1.0 | 0.0153 | 008.2679 | 005.8463 | 032.854 |
| 50.0 | 0.473 | 1.0 | 0.0112 | 007.0590 | 004.5375 | 033.292 |
| 55.0 | 0.394 | 1.0 | 0.0078 | 005.8800 | 003.3727 | 033.883 |
| 60.0 | 0.317 | 1.0 | 0.0050 | 004.7309 | 002.3654 | 034.603 |
| 65.0 | 0.245 | 1.0 | 0.0030 | 003.6564 | 001.5453 | 035.386 |
| 70.0 | 0.181 | 1.0 | 0.0016 | 002.7012 | 000.9239 | 036.162 |
| 75.0 | 0.124 | 1.0 | 0.0008 | 001.8506 | 000.4790 | 036.912 |
| 80.0 | 0.077 | 1.0 | 0.0003 | 001.1491 | 000.1995 | 037.568 |
| 85.0 | 0.041 | 1.0 | 0.0001 | 000.6119 | 000.0533 | 038.090 |
| 90.0 | 0.016 | 1.0 | 0.0000 | 000.2388 | 000.0000 | 038.461 |

Satellite View: Building is the tallest in the immediate vicinity.



XField (C) 2016, V-Soft Communications LLC
To Roof Level



NEW! Yuma, AZ
74.1204(d) Showing - to roof level
Translator or LPFM Maximum Licensed ERP = 0.05
Translator or LPFM Antenna Height AG = 14.2 Meters
NEW! Antenna Model = SHPX1F

Protected Station's Contour = 90.43201 dBu
Translator's or LPFM's full Interference contour 130.43201

Review Azimuth = 0 Degrees True
Relative Field on the horizon at Review Azimuth = 1.000
Translator/LPFM ERP on the horizon at Review Azimuth = 0.05 kW
Distance between stations = 7.6 km
Protected Station= KTII, 50 kW, 137 M Meters COR AMSL

| Depression Angle From Horizon(Deg) | Vertical Relative Field | Horizontal Relative Field | ERP (kw) | Dist to IX Contour Along Dep. Angle(m) | Dist to IX Contour From Tower Base(m) | Height IX Above Ground (m) |
|--|-------------------------------|---------------------------------|----------|--|---|----------------------------------|
| 00.0 | 1.0 | 1.0 | 0.0500 | 014.9240 | 014.9240 | 014.200 |
| 05.0 | 0.993 | 1.0 | 0.0493 | 014.8195 | 014.7631 | 012.908 |
| 10.0 | 0.974 | 1.0 | 0.0474 | 014.5360 | 014.3151 | 011.676 |
| 15.0 | 0.941 | 1.0 | 0.0443 | 014.0435 | 013.5649 | 010.565 |
| 20.0 | 0.897 | 1.0 | 0.0402 | 013.3868 | 012.5795 | 009.621 |
| 25.0 | 0.843 | 1.0 | 0.0355 | 012.5809 | 011.4022 | 008.883 |
| 30.0 | 0.780 | 1.0 | 0.0304 | 011.6407 | 010.0811 | 008.380 |
| 35.0 | 0.709 | 1.0 | 0.0251 | 010.5811 | 008.6675 | 008.131 |
| 40.0 | 0.633 | 1.0 | 0.0200 | 009.4469 | 007.2367 | 008.128 |
| 45.0 | 0.554 | 1.0 | 0.0153 | 008.2679 | 005.8463 | 008.354 |
| 50.0 | 0.473 | 1.0 | 0.0112 | 007.0590 | 004.5375 | 008.792 |
| 55.0 | 0.394 | 1.0 | 0.0078 | 005.8800 | 003.3727 | 009.383 |
| 60.0 | 0.317 | 1.0 | 0.0050 | 004.7309 | 002.3654 | 010.103 |
| 65.0 | 0.245 | 1.0 | 0.0030 | 003.6564 | 001.5453 | 010.886 |
| 70.0 | 0.181 | 1.0 | 0.0016 | 002.7012 | 000.9239 | 011.662 |
| 75.0 | 0.124 | 1.0 | 0.0008 | 001.8506 | 000.4790 | 012.412 |
| 80.0 | 0.077 | 1.0 | 0.0003 | 001.1491 | 000.1995 | 013.068 |
| 85.0 | 0.041 | 1.0 | 0.0001 | 000.6119 | 000.0533 | 013.590 |
| 90.0 | 0.016 | 1.0 | 0.0000 | 000.2388 | 000.0000 | 013.961 |

Contour-to-Contour Channel Study - Mexican Allotment
Arizona Western College

FMCommander Single Allocation Study - 07-13-2017 - GLOBE 30 Sec
NEW!'s Overlaps (In= 54.31 km, Out= 1.25 km)

NEW! CH 234 D

Lat= 32 40 58.0, Lng= 114 37 30.0

0.05 kW 45 m HAAT, 97.7 m COR

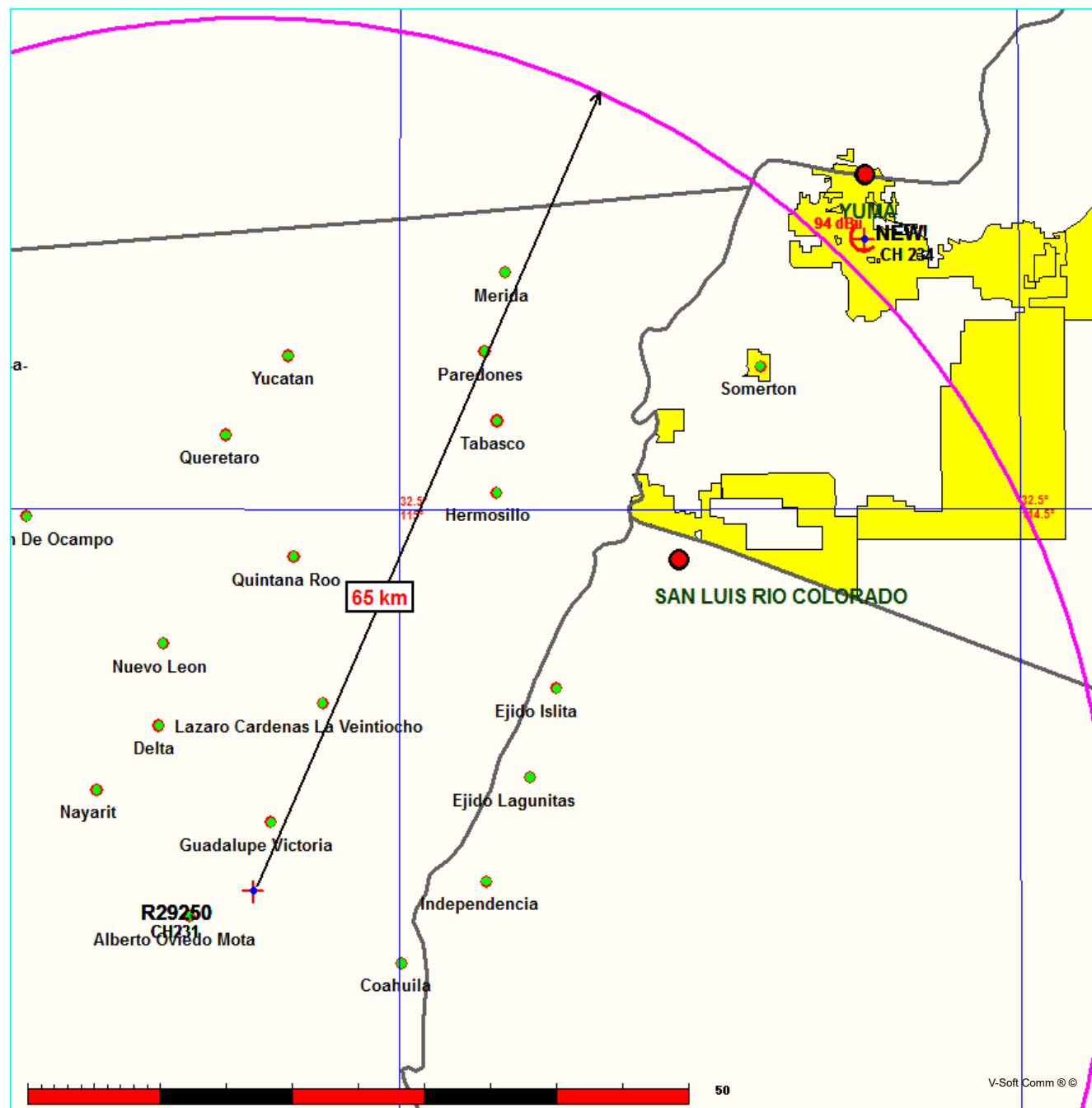
Prot.= 60 dBu, Intef.= 94 dBu

R29250 CH 231 B

Lat= 32 14 44.0, Lng= 115 07 09.0

50.0 kW 150 m HAAT, 160.4 m COR

Prot.= 54 dBu, Intef.= 100 dBu



07-13-2017

Terrain Data: GLOBE 30 Sec

FMOver Analysis

R29250

NEW!

Channel = 231B

Max ERP = 50 kW

RCAMSL = 160.39 m

N. Lat. 32 14 44.0

W. Lng. 115 07 09.0

Protected

54 dBu

Channel = 234D

Max ERP = 0.05 kW

RCAMSL = 97.72 m

N. Lat. 32 40 58.0

W. Lng. 114 37 30.0

Interfering

94 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) | IX (km) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|------------|
| 344.0 | 050.0000 | 0150.1 | 065.0 | 282.4 | 000.0500 | 0050.1 | 065.6 | 21.77 | |
| 345.0 | 050.0000 | 0150.1 | 065.0 | 282.8 | 000.0500 | 0049.8 | 064.6 | 21.99 | |
| 346.0 | 050.0000 | 0150.0 | 065.0 | 283.3 | 000.0500 | 0049.5 | 063.6 | 22.21 | |
| 347.0 | 050.0000 | 0150.0 | 065.0 | 283.8 | 000.0500 | 0049.2 | 062.6 | 22.43 | |
| 348.0 | 050.0000 | 0150.0 | 065.0 | 284.2 | 000.0500 | 0048.9 | 061.6 | 22.66 | |
| 349.0 | 050.0000 | 0150.0 | 065.0 | 284.7 | 000.0500 | 0048.6 | 060.6 | 22.90 | |
| 350.0 | 050.0000 | 0150.0 | 065.0 | 285.2 | 000.0500 | 0048.3 | 059.5 | 23.14 | |
| 351.0 | 050.0000 | 0149.9 | 065.0 | 285.6 | 000.0500 | 0048.0 | 058.5 | 23.39 | |
| 352.0 | 050.0000 | 0149.9 | 065.0 | 286.1 | 000.0500 | 0047.7 | 057.5 | 23.64 | |
| 353.0 | 050.0000 | 0149.9 | 065.0 | 286.5 | 000.0500 | 0047.4 | 056.4 | 23.89 | |
| 354.0 | 050.0000 | 0149.9 | 065.0 | 287.0 | 000.0500 | 0047.1 | 055.4 | 24.15 | |
| 355.0 | 050.0000 | 0149.9 | 065.0 | 287.4 | 000.0500 | 0046.8 | 054.3 | 24.40 | |
| 356.0 | 050.0000 | 0149.8 | 065.0 | 287.9 | 000.0500 | 0046.6 | 053.3 | 24.66 | |
| 357.0 | 050.0000 | 0149.8 | 065.0 | 288.3 | 000.0500 | 0046.3 | 052.2 | 24.92 | |
| 358.0 | 050.0000 | 0149.8 | 065.0 | 288.8 | 000.0500 | 0046.0 | 051.2 | 25.18 | |
| 359.0 | 050.0000 | 0149.8 | 065.0 | 289.2 | 000.0500 | 0045.7 | 050.1 | 25.43 | |
| 000.0 | 050.0000 | 0149.8 | 065.0 | 289.7 | 000.0500 | 0045.4 | 049.0 | 25.68 | |
| 001.0 | 050.0000 | 0149.7 | 065.0 | 290.1 | 000.0500 | 0045.1 | 048.0 | 25.94 | |
| 002.0 | 050.0000 | 0149.7 | 065.0 | 290.5 | 000.0500 | 0044.9 | 046.9 | 26.19 | |
| 003.0 | 050.0000 | 0149.7 | 065.0 | 291.0 | 000.0500 | 0044.6 | 045.8 | 26.46 | |
| 004.0 | 050.0000 | 0149.7 | 065.0 | 291.4 | 000.0500 | 0044.3 | 044.7 | 26.75 | |
| 005.0 | 050.0000 | 0149.6 | 065.0 | 291.8 | 000.0500 | 0044.0 | 043.6 | 27.04 | |
| 006.0 | 050.0000 | 0149.6 | 065.0 | 292.3 | 000.0500 | 0043.8 | 042.5 | 27.34 | |
| 007.0 | 050.0000 | 0149.6 | 065.0 | 292.7 | 000.0500 | 0043.5 | 041.4 | 27.66 | |
| 008.0 | 050.0000 | 0149.6 | 065.0 | 293.1 | 000.0500 | 0043.2 | 040.4 | 27.98 | |
| 009.0 | 050.0000 | 0149.5 | 065.0 | 293.5 | 000.0500 | 0043.0 | 039.3 | 28.32 | |
| 010.0 | 050.0000 | 0149.5 | 065.0 | 293.9 | 000.0500 | 0042.7 | 038.2 | 28.67 | |
| 011.0 | 050.0000 | 0149.5 | 065.0 | 294.3 | 000.0500 | 0042.5 | 037.1 | 29.02 | |
| 012.0 | 050.0000 | 0149.5 | 065.0 | 294.7 | 000.0500 | 0042.2 | 035.9 | 29.40 | |
| 013.0 | 050.0000 | 0149.4 | 065.0 | 295.1 | 000.0500 | 0042.0 | 034.8 | 29.78 | |
| 014.0 | 050.0000 | 0149.4 | 065.0 | 295.5 | 000.0500 | 0041.7 | 033.7 | 30.17 | |
| 015.0 | 050.0000 | 0149.4 | 065.0 | 295.8 | 000.0500 | 0041.5 | 032.6 | 30.57 | |
| 016.0 | 050.0000 | 0149.4 | 065.0 | 296.2 | 000.0500 | 0041.2 | 031.5 | 31.00 | |
| 017.0 | 050.0000 | 0149.3 | 065.0 | 296.5 | 000.0500 | 0041.0 | 030.4 | 31.48 | |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 018.0 | 050.0000 | 0149.3 | 065.0 | 296.9 | 000.0500 | 0040.8 | 029.3 | 32.01 |
| 019.0 | 050.0000 | 0149.3 | 065.0 | 297.2 | 000.0500 | 0040.6 | 028.1 | 32.60 |
| 020.0 | 050.0000 | 0149.3 | 065.0 | 297.5 | 000.0500 | 0040.4 | 027.0 | 33.24 |
| 021.0 | 050.0000 | 0149.2 | 065.0 | 297.8 | 000.0500 | 0040.2 | 025.9 | 33.92 |
| 022.0 | 050.0000 | 0149.2 | 065.0 | 298.1 | 000.0500 | 0040.0 | 024.8 | 34.65 |
| 023.0 | 050.0000 | 0149.2 | 065.0 | 298.3 | 000.0500 | 0039.9 | 023.6 | 35.42 |
| 024.0 | 050.0000 | 0149.2 | 065.0 | 298.6 | 000.0500 | 0039.7 | 022.5 | 36.23 |
| 025.0 | 050.0000 | 0149.1 | 065.0 | 298.8 | 000.0500 | 0039.6 | 021.4 | 37.07 |
| 026.0 | 050.0000 | 0149.1 | 065.0 | 298.9 | 000.0500 | 0039.5 | 020.2 | 37.95 |
| 027.0 | 050.0000 | 0149.1 | 065.0 | 299.1 | 000.0500 | 0039.4 | 019.1 | 38.85 |
| 028.0 | 050.0000 | 0149.1 | 065.0 | 299.1 | 000.0500 | 0039.4 | 018.0 | 39.79 |
| 029.0 | 050.0000 | 0149.0 | 065.0 | 299.2 | 000.0500 | 0039.3 | 016.8 | 40.74 |
| 030.0 | 050.0000 | 0149.0 | 065.0 | 299.1 | 000.0500 | 0039.4 | 015.7 | 41.73 |
| 031.0 | 050.0000 | 0149.0 | 065.0 | 299.0 | 000.0500 | 0039.4 | 014.6 | 42.74 |
| 032.0 | 050.0000 | 0149.0 | 065.0 | 298.8 | 000.0500 | 0039.6 | 013.4 | 44.21 |
| 033.0 | 050.0000 | 0148.9 | 065.0 | 298.4 | 000.0500 | 0039.8 | 012.3 | 45.87 |
| 034.0 | 050.0000 | 0148.9 | 065.0 | 297.9 | 000.0500 | 0040.2 | 011.2 | 47.71 |
| 035.0 | 050.0000 | 0148.9 | 065.0 | 297.1 | 000.0500 | 0040.7 | 010.0 | 49.72 |
| 036.0 | 050.0000 | 0148.9 | 065.0 | 296.0 | 000.0500 | 0041.4 | 008.9 | 51.89 |
| 037.0 | 050.0000 | 0148.8 | 065.0 | 294.4 | 000.0500 | 0042.4 | 007.8 | 54.22 |
| 038.0 | 050.0000 | 0148.8 | 065.0 | 292.2 | 000.0500 | 0043.8 | 006.7 | 57.10 |
| 039.0 | 050.0000 | 0148.8 | 065.0 | 288.9 | 000.0500 | 0045.9 | 005.6 | 60.69 |
| 040.0 | 050.0000 | 0148.8 | 065.0 | 283.8 | 000.0500 | 0049.2 | 004.6 | 64.91 |
| 041.0 | 050.0000 | 0148.7 | 065.0 | 275.6 | 000.0500 | 0054.4 | 003.6 | 70.01 |
| 042.0 | 050.0000 | 0148.7 | 065.0 | 261.7 | 000.0500 | 0059.3 | 002.8 | 75.29 |
| 043.0 | 050.0000 | 0148.7 | 065.0 | 238.6 | 000.0500 | 0062.8 | 002.2 | 79.61 |
| 044.0 | 050.0000 | 0148.7 | 065.0 | 209.3 | 000.0500 | 0056.6 | 002.2 | 79.00 |
| 045.0 | 050.0000 | 0148.6 | 065.0 | 186.1 | 000.0500 | 0044.3 | 002.8 | 72.79 |
| 046.0 | 050.0000 | 0148.6 | 065.0 | 172.1 | 000.0500 | 0039.4 | 003.6 | 67.00 |
| 047.0 | 050.0000 | 0148.6 | 065.0 | 163.8 | 000.0500 | 0037.7 | 004.6 | 62.40 |
| 048.0 | 050.0000 | 0148.6 | 065.0 | 158.7 | 000.0500 | 0036.6 | 005.6 | 58.67 |
| 049.0 | 050.0000 | 0148.5 | 065.0 | 155.4 | 000.0500 | 0035.9 | 006.7 | 55.41 |
| 050.0 | 050.0000 | 0148.5 | 065.0 | 153.2 | 000.0500 | 0035.4 | 007.8 | 52.69 |
| 051.0 | 050.0000 | 0148.5 | 065.0 | 151.6 | 000.0500 | 0035.1 | 008.9 | 50.48 |
| 052.0 | 050.0000 | 0148.5 | 065.0 | 150.5 | 000.0500 | 0034.9 | 010.0 | 48.41 |
| 053.0 | 050.0000 | 0148.5 | 065.0 | 149.7 | 000.0500 | 0034.7 | 011.1 | 46.47 |
| 054.0 | 050.0000 | 0148.5 | 065.0 | 149.2 | 000.0500 | 0034.6 | 012.3 | 44.68 |
| 055.0 | 050.0000 | 0148.4 | 065.0 | 148.8 | 000.0500 | 0034.5 | 013.4 | 43.05 |
| 056.0 | 050.0000 | 0148.4 | 065.0 | 148.5 | 000.0500 | 0034.4 | 014.5 | 41.61 |
| 057.0 | 050.0000 | 0148.4 | 065.0 | 148.4 | 000.0500 | 0034.4 | 015.7 | 40.55 |
| 058.0 | 050.0000 | 0148.4 | 065.0 | 148.4 | 000.0500 | 0034.4 | 016.8 | 39.57 |
| 059.0 | 050.0000 | 0148.4 | 065.0 | 148.4 | 000.0500 | 0034.4 | 017.9 | 38.62 |
| 060.0 | 050.0000 | 0148.3 | 065.0 | 148.5 | 000.0500 | 0034.4 | 019.1 | 37.68 |
| 061.0 | 050.0000 | 0148.3 | 065.0 | 148.6 | 000.0500 | 0034.5 | 020.2 | 36.77 |
| 062.0 | 050.0000 | 0148.3 | 065.0 | 148.8 | 000.0500 | 0034.5 | 021.3 | 35.89 |
| 063.0 | 050.0000 | 0148.3 | 065.0 | 149.0 | 000.0500 | 0034.5 | 022.5 | 35.04 |
| 064.0 | 050.0000 | 0148.3 | 065.0 | 149.2 | 000.0500 | 0034.6 | 023.6 | 34.22 |
| 065.0 | 050.0000 | 0148.2 | 065.0 | 149.5 | 000.0500 | 0034.6 | 024.7 | 33.44 |
| 066.0 | 050.0000 | 0148.2 | 065.0 | 149.7 | 000.0500 | 0034.7 | 025.9 | 32.70 |
| 067.0 | 050.0000 | 0148.2 | 065.0 | 150.0 | 000.0500 | 0034.8 | 027.0 | 32.00 |
| 068.0 | 050.0000 | 0148.2 | 065.0 | 150.3 | 000.0500 | 0034.8 | 028.1 | 31.35 |

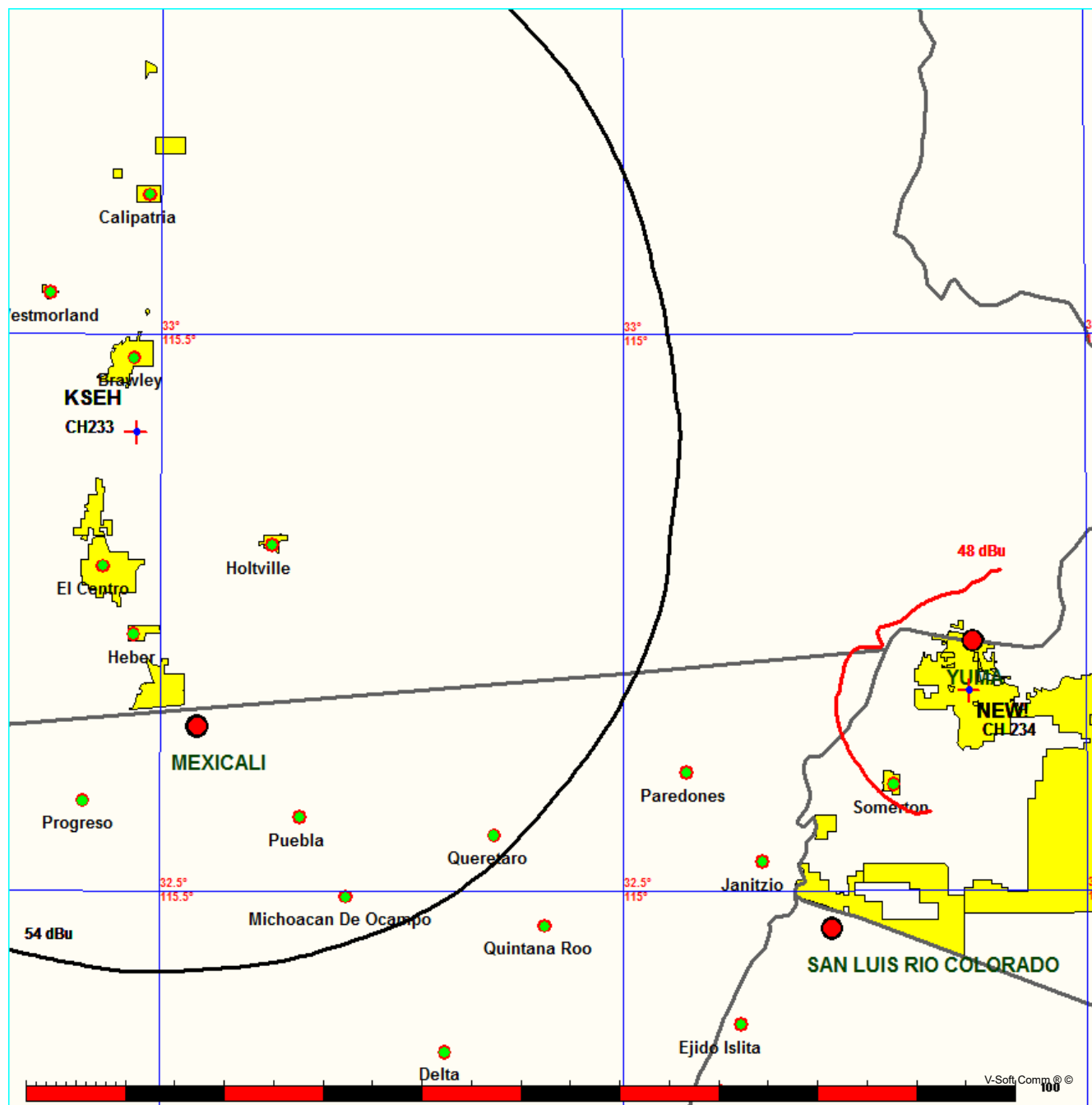
| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|--|----------------------|-------------|-------------|--------------|-----------------|
| 069.0 | 050.0000 | 0148.2 | 065.0 | | 150.7 | 000.0500 | 0034.9 | 029.2 | 30.74 |
| 070.0 | 050.0000 | 0148.1 | 065.0 | | 151.0 | 000.0500 | 0035.0 | 030.4 | 30.19 |
| 071.0 | 050.0000 | 0148.1 | 065.0 | | 151.4 | 000.0500 | 0035.0 | 031.5 | 29.70 |
| 072.0 | 050.0000 | 0148.1 | 065.0 | | 151.7 | 000.0500 | 0035.1 | 032.6 | 29.26 |
| 073.0 | 050.0000 | 0148.1 | 065.0 | | 152.1 | 000.0500 | 0035.2 | 033.7 | 28.84 |
| 074.0 | 050.0000 | 0148.1 | 065.0 | | 152.5 | 000.0500 | 0035.3 | 034.8 | 28.43 |
| 075.0 | 050.0000 | 0148.0 | 065.0 | | 152.9 | 000.0500 | 0035.4 | 035.9 | 28.03 |
| 076.0 | 050.0000 | 0148.0 | 065.0 | | 153.2 | 000.0500 | 0035.4 | 037.0 | 27.65 |
| 077.0 | 050.0000 | 0148.0 | 065.0 | | 153.6 | 000.0500 | 0035.5 | 038.1 | 27.27 |
| 078.0 | 050.0000 | 0148.0 | 065.0 | | 154.0 | 000.0500 | 0035.6 | 039.2 | 26.91 |
| 079.0 | 050.0000 | 0148.0 | 065.0 | | 154.5 | 000.0500 | 0035.7 | 040.3 | 26.56 |
| 080.0 | 050.0000 | 0147.9 | 065.0 | | 154.9 | 000.0500 | 0035.8 | 041.4 | 26.23 |
| 081.0 | 050.0000 | 0147.9 | 065.0 | | 155.3 | 000.0500 | 0035.9 | 042.5 | 25.91 |
| 082.0 | 050.0000 | 0147.9 | 065.0 | | 155.7 | 000.0500 | 0036.0 | 043.6 | 25.60 |
| 083.0 | 050.0000 | 0147.9 | 065.0 | | 156.1 | 000.0500 | 0036.1 | 044.7 | 25.30 |
| 084.0 | 050.0000 | 0147.9 | 065.0 | | 156.6 | 000.0500 | 0036.1 | 045.8 | 25.02 |
| 085.0 | 050.0000 | 0147.9 | 065.0 | | 157.0 | 000.0500 | 0036.2 | 046.9 | 24.76 |
| 086.0 | 050.0000 | 0147.8 | 065.0 | | 157.4 | 000.0500 | 0036.3 | 047.9 | 24.50 |
| 087.0 | 050.0000 | 0147.8 | 065.0 | | 157.9 | 000.0500 | 0036.4 | 049.0 | 24.26 |
| 088.0 | 050.0000 | 0147.8 | 065.0 | | 158.3 | 000.0500 | 0036.5 | 050.1 | 24.01 |
| 089.0 | 050.0000 | 0147.8 | 065.0 | | 158.8 | 000.0500 | 0036.6 | 051.1 | 23.77 |
| 090.0 | 050.0000 | 0147.8 | 065.0 | | 159.2 | 000.0500 | 0036.7 | 052.2 | 23.53 |
| 091.0 | 050.0000 | 0147.8 | 065.0 | | 159.7 | 000.0500 | 0036.8 | 053.3 | 23.28 |
| 092.0 | 050.0000 | 0147.9 | 065.0 | | 160.1 | 000.0500 | 0036.9 | 054.3 | 23.04 |
| 093.0 | 050.0000 | 0147.9 | 065.0 | | 160.6 | 000.0500 | 0037.0 | 055.4 | 22.80 |
| 094.0 | 050.0000 | 0148.0 | 065.0 | | 161.0 | 000.0500 | 0037.1 | 056.4 | 22.56 |
| 095.0 | 050.0000 | 0148.0 | 065.0 | | 161.5 | 000.0500 | 0037.2 | 057.4 | 22.32 |
| 096.0 | 050.0000 | 0148.1 | 065.0 | | 161.9 | 000.0500 | 0037.3 | 058.5 | 22.09 |
| 097.0 | 050.0000 | 0148.1 | 065.0 | | 162.4 | 000.0500 | 0037.4 | 059.5 | 21.86 |
| 098.0 | 050.0000 | 0148.2 | 065.0 | | 162.8 | 000.0500 | 0037.5 | 060.5 | 21.63 |
| 099.0 | 050.0000 | 0148.2 | 065.0 | | 163.3 | 000.0500 | 0037.6 | 061.6 | 21.41 |
| 100.0 | 050.0000 | 0148.3 | 065.0 | | 163.8 | 000.0500 | 0037.7 | 062.6 | 21.19 |
| 101.0 | 050.0000 | 0148.4 | 065.0 | | 164.2 | 000.0500 | 0037.8 | 063.6 | 20.98 |
| 102.0 | 050.0000 | 0148.4 | 065.0 | | 164.7 | 000.0500 | 0037.9 | 064.6 | 20.78 |
| 103.0 | 050.0000 | 0148.5 | 065.0 | | 165.2 | 000.0500 | 0038.0 | 065.6 | 20.57 |

Contour-to-Contour Channel Study - KESH
Arizona Western College

FMCommander Single Allocation Study - 07-13-2017 - GLOBE 30 Sec
NEW!'s Overlaps (In= 13.12 km, Out= 19.5 km)

NEW! CH 234 D
Lat= 32 40 58.0, Lng= 114 37 30.0
0.05 kW 45 m HAAT, 97.7 m COR
Prot.= 60 dBu, Intef.= 48 dBu

KSEH CH 233 B BLH20020826AAQ
Lat= 32 54 40.0, Lng= 115 31 40.0
50.0 kW 92 m HAAT, 63 m COR
Prot.= 54 dBu, Intef.= 54 dBu



07-13-2017

Terrain Data: GLOBE 30 Sec

FMOver Analysis

KSEH BLH20020826AAQ

NEW!

Channel = 233B

Max ERP = 50 kW

RCAMSL = 63 m

N. Lat. 32 54 40.0

W. Lng. 115 31 40.0

Protected

54 dBu

Channel = 234D

Max ERP = 0.05 kW

RCAMSL = 97.72 m

N. Lat. 32 40 58.0

W. Lng. 114 37 30.0

Interfering

48 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) | IX (km) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|------------|
| 047.0 | 050.0000 | 0097.5 | 056.6 | 326.4 | 000.0500 | 0022.6 | 076.8 | 17.66 | |
| 048.0 | 050.0000 | 0097.4 | 056.5 | 326.5 | 000.0500 | 0022.6 | 075.9 | 17.84 | |
| 049.0 | 050.0000 | 0097.3 | 056.5 | 326.5 | 000.0500 | 0022.6 | 074.9 | 18.02 | |
| 050.0 | 050.0000 | 0097.3 | 056.5 | 326.6 | 000.0500 | 0022.6 | 073.9 | 18.20 | |
| 051.0 | 050.0000 | 0097.2 | 056.5 | 326.7 | 000.0500 | 0022.5 | 072.9 | 18.38 | |
| 052.0 | 050.0000 | 0096.9 | 056.5 | 326.7 | 000.0500 | 0022.5 | 071.9 | 18.56 | |
| 053.0 | 050.0000 | 0096.6 | 056.4 | 326.7 | 000.0500 | 0022.5 | 070.9 | 18.74 | |
| 054.0 | 050.0000 | 0096.1 | 056.3 | 326.7 | 000.0500 | 0022.5 | 070.0 | 18.91 | |
| 055.0 | 050.0000 | 0095.7 | 056.2 | 326.6 | 000.0500 | 0022.6 | 069.0 | 19.09 | |
| 056.0 | 050.0000 | 0095.3 | 056.1 | 326.6 | 000.0500 | 0022.6 | 068.0 | 19.27 | |
| 057.0 | 050.0000 | 0095.0 | 056.1 | 326.5 | 000.0500 | 0022.6 | 067.0 | 19.45 | |
| 058.0 | 050.0000 | 0094.6 | 056.0 | 326.4 | 000.0500 | 0022.6 | 066.0 | 19.62 | |
| 059.0 | 050.0000 | 0094.2 | 055.9 | 326.3 | 000.0500 | 0022.6 | 065.1 | 19.81 | |
| 060.0 | 050.0000 | 0093.8 | 055.8 | 326.2 | 000.0500 | 0022.6 | 064.1 | 19.99 | |
| 061.0 | 050.0000 | 0093.4 | 055.7 | 326.0 | 000.0500 | 0022.7 | 063.1 | 20.17 | |
| 062.0 | 050.0000 | 0093.0 | 055.7 | 325.9 | 000.0500 | 0022.7 | 062.2 | 20.36 | |
| 063.0 | 050.0000 | 0092.7 | 055.6 | 325.7 | 000.0500 | 0022.7 | 061.2 | 20.55 | |
| 064.0 | 050.0000 | 0092.5 | 055.5 | 325.5 | 000.0500 | 0022.8 | 060.3 | 20.74 | |
| 065.0 | 050.0000 | 0092.2 | 055.5 | 325.3 | 000.0500 | 0022.8 | 059.3 | 20.94 | |
| 066.0 | 050.0000 | 0091.9 | 055.4 | 325.1 | 000.0500 | 0022.9 | 058.4 | 21.13 | |
| 067.0 | 050.0000 | 0091.5 | 055.3 | 324.8 | 000.0500 | 0022.9 | 057.5 | 21.33 | |
| 068.0 | 050.0000 | 0091.1 | 055.3 | 324.5 | 000.0500 | 0023.0 | 056.5 | 21.52 | |
| 069.0 | 050.0000 | 0090.6 | 055.2 | 324.1 | 000.0500 | 0023.1 | 055.6 | 21.71 | |
| 070.0 | 050.0000 | 0090.1 | 055.1 | 323.7 | 000.0500 | 0023.2 | 054.7 | 21.91 | |
| 071.0 | 050.0000 | 0089.5 | 054.9 | 323.3 | 000.0500 | 0023.4 | 053.9 | 22.10 | |
| 072.0 | 050.0000 | 0089.0 | 054.8 | 322.9 | 000.0500 | 0023.6 | 053.0 | 22.28 | |
| 073.0 | 050.0000 | 0088.8 | 054.8 | 322.5 | 000.0500 | 0023.9 | 052.1 | 22.48 | |
| 074.0 | 050.0000 | 0088.9 | 054.8 | 322.1 | 000.0500 | 0024.1 | 051.2 | 22.67 | |
| 075.0 | 050.0000 | 0089.0 | 054.8 | 321.7 | 000.0500 | 0024.4 | 050.3 | 22.86 | |
| 076.0 | 050.0000 | 0089.0 | 054.8 | 321.2 | 000.0500 | 0024.7 | 049.4 | 23.05 | |
| 077.0 | 050.0000 | 0088.7 | 054.8 | 320.7 | 000.0500 | 0025.1 | 048.6 | 23.23 | |
| 078.0 | 050.0000 | 0088.5 | 054.7 | 320.1 | 000.0500 | 0025.5 | 047.8 | 23.41 | |
| 079.0 | 050.0000 | 0088.3 | 054.7 | 319.5 | 000.0500 | 0025.9 | 047.0 | 23.60 | |
| 080.0 | 050.0000 | 0088.3 | 054.7 | 318.9 | 000.0500 | 0026.3 | 046.2 | 23.79 | |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 081.0 | 050.0000 | 0088.3 | 054.7 | 318.2 | 000.0500 | 0026.8 | 045.4 | 23.99 |
| 082.0 | 050.0000 | 0088.2 | 054.7 | 317.6 | 000.0500 | 0027.3 | 044.6 | 24.19 |
| 083.0 | 050.0000 | 0088.3 | 054.7 | 316.9 | 000.0500 | 0027.8 | 043.8 | 24.41 |
| 084.0 | 050.0000 | 0088.4 | 054.7 | 316.1 | 000.0500 | 0028.3 | 043.0 | 24.62 |
| 085.0 | 050.0000 | 0088.3 | 054.7 | 315.3 | 000.0500 | 0029.0 | 042.3 | 24.83 |
| 086.0 | 050.0000 | 0088.6 | 054.7 | 314.5 | 000.0500 | 0029.6 | 041.5 | 25.05 |
| 087.0 | 050.0000 | 0089.0 | 054.8 | 313.7 | 000.0500 | 0030.2 | 040.8 | 25.32 |
| 088.0 | 050.0000 | 0089.5 | 054.9 | 312.8 | 000.0500 | 0030.8 | 040.0 | 25.68 |
| 089.0 | 050.0000 | 0089.9 | 055.0 | 311.9 | 000.0500 | 0031.4 | 039.3 | 26.05 |
| 090.0 | 050.0000 | 0089.9 | 055.0 | 310.8 | 000.0500 | 0032.2 | 038.7 | 26.41 |
| 091.0 | 050.0000 | 0089.8 | 055.0 | 309.7 | 000.0500 | 0033.0 | 038.1 | 26.78 |
| 092.0 | 050.0000 | 0089.8 | 055.0 | 308.5 | 000.0500 | 0034.0 | 037.5 | 27.18 |
| 093.0 | 050.0000 | 0089.7 | 055.0 | 307.3 | 000.0500 | 0035.2 | 037.0 | 27.62 |
| 094.0 | 050.0000 | 0089.6 | 055.0 | 306.0 | 000.0500 | 0036.6 | 036.5 | 28.09 |
| 095.0 | 050.0000 | 0089.6 | 054.9 | 304.7 | 000.0500 | 0038.1 | 036.0 | 28.57 |
| 096.0 | 050.0000 | 0089.6 | 054.9 | 303.4 | 000.0500 | 0039.3 | 035.5 | 28.98 |
| 097.0 | 050.0000 | 0089.6 | 054.9 | 302.0 | 000.0500 | 0039.8 | 035.1 | 29.25 |
| 098.0 | 050.0000 | 0089.4 | 054.9 | 300.5 | 000.0500 | 0039.4 | 034.8 | 29.30 |
| 099.0 | 050.0000 | 0089.3 | 054.9 | 299.0 | 000.0500 | 0037.5 | 034.4 | 29.04 |
| 100.0 | 050.0000 | 0089.3 | 054.9 | 297.5 | 000.0500 | 0034.5 | 034.1 | 28.52 |
| 101.0 | 050.0000 | 0089.8 | 055.0 | 296.0 | 000.0500 | 0031.7 | 033.8 | 28.06 |
| 102.0 | 050.0000 | 0090.5 | 055.1 | 294.4 | 000.0500 | 0032.0 | 033.4 | 28.25 |
| 103.0 | 050.0000 | 0091.4 | 055.3 | 292.9 | 000.0500 | 0036.0 | 033.1 | 29.27 |
| 104.0 | 050.0000 | 0092.2 | 055.5 | 291.2 | 000.0500 | 0041.9 | 032.7 | 30.60 |
| 105.0 | 050.0000 | 0092.9 | 055.6 | 289.6 | 000.0500 | 0046.9 | 032.5 | 31.66 |
| 106.0 | 050.0000 | 0093.6 | 055.8 | 287.9 | 000.0500 | 0050.1 | 032.3 | 32.30 |
| 107.0 | 050.0000 | 0094.1 | 055.9 | 286.1 | 000.0500 | 0051.9 | 032.2 | 32.65 |
| 108.0 | 050.0000 | 0094.4 | 055.9 | 284.4 | 000.0500 | 0053.2 | 032.2 | 32.86 |
| 109.0 | 050.0000 | 0094.5 | 056.0 | 282.7 | 000.0500 | 0054.4 | 032.3 | 33.01 |
| 110.0 | 050.0000 | 0094.4 | 056.0 | 280.9 | 000.0500 | 0055.3 | 032.4 | 33.09 |
| 111.0 | 050.0000 | 0094.4 | 055.9 | 279.3 | 000.0500 | 0055.6 | 032.6 | 33.06 |
| 112.0 | 050.0000 | 0094.4 | 055.9 | 277.6 | 000.0500 | 0055.7 | 032.9 | 32.97 |
| 113.0 | 050.0000 | 0094.4 | 056.0 | 276.0 | 000.0500 | 0056.0 | 033.1 | 32.90 |
| 114.0 | 050.0000 | 0094.5 | 056.0 | 274.4 | 000.0500 | 0056.4 | 033.4 | 32.84 |
| 115.0 | 050.0000 | 0094.5 | 056.0 | 272.8 | 000.0500 | 0056.9 | 033.8 | 32.76 |
| 116.0 | 050.0000 | 0094.6 | 056.0 | 271.3 | 000.0500 | 0057.5 | 034.2 | 32.68 |
| 117.0 | 050.0000 | 0094.6 | 056.0 | 269.8 | 000.0500 | 0058.1 | 034.6 | 32.58 |
| 118.0 | 050.0000 | 0094.6 | 056.0 | 268.4 | 000.0500 | 0058.7 | 035.1 | 32.47 |
| 119.0 | 050.0000 | 0094.6 | 056.0 | 267.1 | 000.0500 | 0060.3 | 035.6 | 32.47 |
| 120.0 | 050.0000 | 0094.6 | 056.0 | 265.8 | 000.0500 | 0061.8 | 036.1 | 32.42 |
| 121.0 | 050.0000 | 0094.6 | 056.0 | 264.5 | 000.0500 | 0063.0 | 036.7 | 32.32 |
| 122.0 | 050.0000 | 0094.5 | 056.0 | 263.4 | 000.0500 | 0063.3 | 037.3 | 32.11 |
| 123.0 | 050.0000 | 0094.4 | 055.9 | 262.2 | 000.0500 | 0063.7 | 038.0 | 31.89 |
| 124.0 | 050.0000 | 0094.3 | 055.9 | 261.2 | 000.0500 | 0063.8 | 038.6 | 31.64 |
| 125.0 | 050.0000 | 0094.1 | 055.9 | 260.2 | 000.0500 | 0063.9 | 039.3 | 31.37 |
| 126.0 | 050.0000 | 0093.9 | 055.9 | 259.3 | 000.0500 | 0064.0 | 040.1 | 31.10 |
| 127.0 | 050.0000 | 0093.8 | 055.8 | 258.4 | 000.0500 | 0064.1 | 040.8 | 30.83 |
| 128.0 | 050.0000 | 0093.7 | 055.8 | 257.5 | 000.0500 | 0064.2 | 041.6 | 30.56 |
| 129.0 | 050.0000 | 0093.6 | 055.8 | 256.7 | 000.0500 | 0064.4 | 042.3 | 30.29 |
| 130.0 | 050.0000 | 0093.6 | 055.8 | 255.9 | 000.0500 | 0064.5 | 043.1 | 30.01 |
| 131.0 | 050.0000 | 0093.7 | 055.8 | 255.2 | 000.0500 | 0064.6 | 043.9 | 29.74 |

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|--|----------------------|-------------|-------------|--------------|-----------------|
| 132.0 | 050.0000 | 0093.8 | 055.8 | | 254.5 | 000.0500 | 0064.7 | 044.7 | 29.47 |
| 133.0 | 050.0000 | 0094.1 | 055.9 | | 253.8 | 000.0500 | 0064.7 | 045.5 | 29.19 |
| 134.0 | 050.0000 | 0094.3 | 055.9 | | 253.1 | 000.0500 | 0064.7 | 046.4 | 28.90 |
| 135.0 | 050.0000 | 0094.5 | 056.0 | | 252.5 | 000.0500 | 0064.7 | 047.2 | 28.62 |
| 136.0 | 050.0000 | 0094.8 | 056.0 | | 252.0 | 000.0500 | 0064.7 | 048.1 | 28.34 |
| 137.0 | 050.0000 | 0095.1 | 056.1 | | 251.4 | 000.0500 | 0064.7 | 048.9 | 28.06 |
| 138.0 | 050.0000 | 0095.3 | 056.1 | | 250.9 | 000.0500 | 0064.7 | 049.8 | 27.78 |
| 139.0 | 050.0000 | 0095.5 | 056.2 | | 250.5 | 000.0500 | 0064.6 | 050.7 | 27.48 |
| 140.0 | 050.0000 | 0095.6 | 056.2 | | 250.1 | 000.0500 | 0064.6 | 051.6 | 27.19 |
| 141.0 | 050.0000 | 0095.6 | 056.2 | | 249.7 | 000.0500 | 0064.6 | 052.5 | 26.88 |
| 142.0 | 050.0000 | 0095.6 | 056.2 | | 249.4 | 000.0500 | 0064.6 | 053.5 | 26.58 |
| 143.0 | 050.0000 | 0095.6 | 056.2 | | 249.1 | 000.0500 | 0064.6 | 054.4 | 26.27 |
| 144.0 | 050.0000 | 0095.5 | 056.2 | | 248.8 | 000.0500 | 0064.6 | 055.4 | 25.96 |
| 145.0 | 050.0000 | 0095.4 | 056.1 | | 248.6 | 000.0500 | 0064.6 | 056.3 | 25.65 |
| 146.0 | 050.0000 | 0095.1 | 056.1 | | 248.5 | 000.0500 | 0064.6 | 057.3 | 25.35 |
| 147.0 | 050.0000 | 0094.8 | 056.0 | | 248.3 | 000.0500 | 0064.6 | 058.3 | 25.04 |
| 148.0 | 050.0000 | 0094.6 | 056.0 | | 248.2 | 000.0500 | 0064.6 | 059.2 | 24.74 |
| 149.0 | 050.0000 | 0094.3 | 055.9 | | 248.1 | 000.0500 | 0064.6 | 060.2 | 24.44 |
| 150.0 | 050.0000 | 0094.0 | 055.9 | | 248.0 | 000.0500 | 0064.6 | 061.2 | 24.15 |
| 151.0 | 050.0000 | 0093.7 | 055.8 | | 248.0 | 000.0500 | 0064.6 | 062.2 | 23.87 |
| 152.0 | 050.0000 | 0093.3 | 055.7 | | 248.0 | 000.0500 | 0064.6 | 063.1 | 23.59 |
| 153.0 | 050.0000 | 0092.8 | 055.6 | | 248.0 | 000.0500 | 0064.6 | 064.1 | 23.33 |
| 154.0 | 050.0000 | 0092.3 | 055.5 | | 248.0 | 000.0500 | 0064.6 | 065.1 | 23.07 |
| 155.0 | 050.0000 | 0091.8 | 055.4 | | 248.1 | 000.0500 | 0064.6 | 066.1 | 22.81 |
| 156.0 | 050.0000 | 0091.3 | 055.3 | | 248.1 | 000.0500 | 0064.6 | 067.0 | 22.55 |
| 157.0 | 050.0000 | 0090.9 | 055.2 | | 248.2 | 000.0500 | 0064.6 | 068.0 | 22.30 |
| 158.0 | 050.0000 | 0090.5 | 055.1 | | 248.3 | 000.0500 | 0064.6 | 069.0 | 22.05 |
| 159.0 | 050.0000 | 0090.2 | 055.1 | | 248.3 | 000.0500 | 0064.6 | 069.9 | 21.80 |
| 160.0 | 050.0000 | 0089.9 | 055.0 | | 248.4 | 000.0500 | 0064.6 | 070.9 | 21.55 |
| 161.0 | 050.0000 | 0089.7 | 055.0 | | 248.5 | 000.0500 | 0064.6 | 071.8 | 21.30 |
| 162.0 | 050.0000 | 0089.4 | 054.9 | | 248.5 | 000.0500 | 0064.6 | 072.8 | 21.05 |
| 163.0 | 050.0000 | 0089.1 | 054.8 | | 248.7 | 000.0500 | 0064.6 | 073.7 | 20.81 |
| 164.0 | 050.0000 | 0088.7 | 054.8 | | 248.8 | 000.0500 | 0064.6 | 074.7 | 20.56 |
| 165.0 | 050.0000 | 0088.3 | 054.7 | | 248.9 | 000.0500 | 0064.6 | 075.6 | 20.32 |
| 166.0 | 050.0000 | 0087.9 | 054.6 | | 249.1 | 000.0500 | 0064.6 | 076.6 | 20.08 |