

09-14-2007

NGDC 30 SEC Terrain Data

FMOver Analysis

AP2389

Channel = 219C3

Max ERP = 22 kW

RCAMSL = 480 M

N. Lat. 39 52 12.0

W. Lng. 96 44 45.0

Protected

60 dBu

KCVS

BLED20001215AAI

Channel = 219C2

Max ERP = 11.5 kW

RCAMSL = 643 M

N. Lat. 38 39 58.0

W. Lng. 97 41 30.0

Interfering

40 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) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 152.0                | 022.0000    | 0097.6      | 037.7        | 044.3                | 011.5000    | 0254.4      | 141.4        | 35.37           |
| 153.0                | 022.0000    | 0098.4      | 037.8        | 044.2                | 011.5000    | 0254.4      | 140.7        | 35.50           |
| 154.0                | 022.0000    | 0099.1      | 037.9        | 044.2                | 011.5000    | 0254.4      | 140.0        | 35.63           |
| 155.0                | 022.0000    | 0100.4      | 038.1        | 044.2                | 011.5000    | 0254.4      | 139.3        | 35.76           |
| 156.0                | 022.0000    | 0102.5      | 038.5        | 044.2                | 011.5000    | 0254.4      | 138.6        | 35.91           |
| 157.0                | 022.0000    | 0104.2      | 038.7        | 044.2                | 011.5000    | 0254.4      | 137.8        | 36.05           |
| 158.0                | 022.0000    | 0104.5      | 038.8        | 044.1                | 011.5000    | 0254.5      | 137.2        | 36.18           |
| 159.0                | 022.0000    | 0103.6      | 038.6        | 044.0                | 011.5000    | 0254.5      | 136.6        | 36.29           |
| 160.0                | 022.0000    | 0102.0      | 038.4        | 043.8                | 011.5000    | 0254.6      | 136.1        | 36.39           |
| 161.0                | 022.0000    | 0100.2      | 038.1        | 043.5                | 011.5000    | 0254.6      | 135.7        | 36.48           |
| 162.0                | 022.0000    | 0098.5      | 037.8        | 043.3                | 011.5000    | 0254.7      | 135.2        | 36.57           |
| 163.0                | 022.0000    | 0097.2      | 037.6        | 043.1                | 011.5000    | 0254.8      | 134.7        | 36.67           |
| 164.0                | 022.0000    | 0095.9      | 037.4        | 042.9                | 011.5000    | 0254.9      | 134.3        | 36.76           |
| 165.0                | 022.0000    | 0094.7      | 037.2        | 042.6                | 011.5000    | 0255.0      | 133.9        | 36.85           |
| 166.0                | 022.0000    | 0093.4      | 036.9        | 042.4                | 011.5000    | 0255.0      | 133.4        | 36.94           |
| 167.0                | 022.0000    | 0092.0      | 036.7        | 042.2                | 011.5000    | 0255.1      | 133.0        | 37.02           |
| 168.0                | 022.0000    | 0090.5      | 036.4        | 041.9                | 011.5000    | 0255.2      | 132.7        | 37.09           |
| 169.0                | 022.0000    | 0088.4      | 036.0        | 041.6                | 011.5000    | 0255.3      | 132.4        | 37.15           |
| 170.0                | 022.0000    | 0086.2      | 035.6        | 041.3                | 011.5000    | 0255.4      | 132.1        | 37.20           |
| 171.0                | 022.0000    | 0084.3      | 035.2        | 041.0                | 011.5000    | 0255.4      | 131.9        | 37.25           |
| 172.0                | 022.0000    | 0082.7      | 034.9        | 040.8                | 011.5000    | 0255.5      | 131.6        | 37.30           |
| 173.0                | 022.0000    | 0081.2      | 034.6        | 040.5                | 011.5000    | 0255.5      | 131.4        | 37.36           |
| 174.0                | 022.0000    | 0079.4      | 034.3        | 040.2                | 011.5000    | 0255.6      | 131.2        | 37.40           |
| 175.0                | 022.0000    | 0078.0      | 034.0        | 039.9                | 011.5000    | 0255.6      | 130.9        | 37.44           |
| 176.0                | 022.0000    | 0077.1      | 033.8        | 039.7                | 011.5000    | 0255.6      | 130.7        | 37.50           |
| 177.0                | 022.0000    | 0077.0      | 033.8        | 039.5                | 011.5000    | 0255.5      | 130.3        | 37.57           |
| 178.0                | 022.0000    | 0077.0      | 033.8        | 039.3                | 011.5000    | 0255.5      | 129.9        | 37.65           |
| 179.0                | 022.0000    | 0077.6      | 033.9        | 039.1                | 011.5000    | 0255.5      | 129.4        | 37.75           |
| 180.0                | 022.0000    | 0078.1      | 034.0        | 039.0                | 011.5000    | 0255.5      | 128.9        | 37.84           |
| 181.0                | 022.0000    | 0078.7      | 034.1        | 038.8                | 011.5000    | 0255.5      | 128.5        | 37.93           |
| 182.0                | 022.0000    | 0079.9      | 034.4        | 038.7                | 011.5000    | 0255.5      | 127.9        | 38.04           |
| 183.0                | 022.0000    | 0081.7      | 034.7        | 038.5                | 011.5000    | 0255.5      | 127.3        | 38.17           |
| 184.0                | 022.0000    | 0083.5      | 035.1        | 038.4                | 011.5000    | 0255.6      | 126.6        | 38.30           |
| 185.0                | 022.0000    | 0084.5      | 035.3        | 038.2                | 011.5000    | 0255.6      | 126.1        | 38.40           |
| 186.0                | 022.0000    | 0084.0      | 035.2        | 038.0                | 011.5000    | 0255.6      | 125.8        | 38.46           |
| 187.0                | 022.0000    | 0082.5      | 034.9        | 037.7                | 011.5000    | 0255.7      | 125.8        | 38.47           |
| 188.0                | 022.0000    | 0080.1      | 034.4        | 037.3                | 011.5000    | 0255.8      | 125.9        | 38.45           |

| 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) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 189.0                | 022.0000    | 0078.2      | 034.0        | 037.0                | 011.5000    | 0256.0      | 125.9        | 38.44           |
| 190.0                | 022.0000    | 0077.5      | 033.9        | 036.7                | 011.5000    | 0256.1      | 125.8        | 38.48           |
| 191.0                | 022.0000    | 0077.9      | 033.9        | 036.5                | 011.5000    | 0256.2      | 125.5        | 38.55           |
| 192.0                | 022.0000    | 0078.4      | 034.1        | 036.3                | 011.5000    | 0256.3      | 125.1        | 38.62           |
| 193.0                | 022.0000    | 0078.5      | 034.1        | 036.0                | 011.5000    | 0256.4      | 124.8        | 38.68           |
| 194.0                | 022.0000    | 0078.4      | 034.1        | 035.8                | 011.5000    | 0256.5      | 124.6        | 38.72           |
| 195.0                | 022.0000    | 0078.6      | 034.1        | 035.5                | 011.5000    | 0256.6      | 124.4        | 38.78           |
| 196.0                | 022.0000    | 0079.4      | 034.3        | 035.3                | 011.5000    | 0256.7      | 124.0        | 38.85           |
| 197.0                | 022.0000    | 0080.5      | 034.5        | 035.1                | 011.5000    | 0256.7      | 123.6        | 38.94           |
| 198.0                | 022.0000    | 0081.5      | 034.7        | 034.9                | 011.5000    | 0256.8      | 123.2        | 39.02           |
| 199.0                | 022.0000    | 0082.2      | 034.8        | 034.6                | 011.5000    | 0256.8      | 122.9        | 39.08           |
| 200.0                | 022.0000    | 0082.3      | 034.8        | 034.3                | 011.5000    | 0256.9      | 122.7        | 39.12           |
| 201.0                | 022.0000    | 0081.7      | 034.7        | 034.1                | 011.5000    | 0256.9      | 122.7        | 39.13           |
| 202.0                | 022.0000    | 0081.0      | 034.6        | 033.8                | 011.5000    | 0257.0      | 122.7        | 39.13           |
| 203.0                | 022.0000    | 0081.0      | 034.6        | 033.5                | 011.5000    | 0257.1      | 122.6        | 39.16           |
| 204.0                | 022.0000    | 0081.5      | 034.7        | 033.2                | 011.5000    | 0257.2      | 122.4        | 39.20           |
| 205.0                | 022.0000    | 0082.4      | 034.9        | 033.0                | 011.5000    | 0257.3      | 122.1        | 39.26           |
| 206.0                | 022.0000    | 0083.4      | 035.1        | 032.7                | 011.5000    | 0257.5      | 121.8        | 39.32           |
| 207.0                | 022.0000    | 0084.0      | 035.2        | 032.4                | 011.5000    | 0257.7      | 121.6        | 39.37           |
| 208.0                | 022.0000    | 0084.0      | 035.2        | 032.1                | 011.5000    | 0257.9      | 121.6        | 39.38           |
| 209.0                | 022.0000    | 0084.0      | 035.2        | 031.8                | 011.5000    | 0258.1      | 121.6        | 39.40           |
| 210.0                | 022.0000    | 0084.2      | 035.2        | 031.5                | 011.5000    | 0258.3      | 121.5        | 39.42           |
| 211.0                | 022.0000    | 0084.4      | 035.3        | 031.3                | 011.5000    | 0258.5      | 121.4        | 39.43           |
| 212.0                | 022.0000    | 0084.0      | 035.2        | 031.0                | 011.5000    | 0258.8      | 121.5        | 39.42           |
| 213.0                | 022.0000    | 0083.4      | 035.1        | 030.7                | 011.5000    | 0259.0      | 121.6        | 39.40           |
| 214.0                | 022.0000    | 0083.0      | 035.0        | 030.4                | 011.5000    | 0259.1      | 121.7        | 39.38           |
| 215.0                | 022.0000    | 0083.0      | 035.0        | 030.1                | 011.5000    | 0259.3      | 121.8        | 39.38           |
| 216.0                | 022.0000    | 0082.9      | 035.0        | 029.8                | 011.5000    | 0259.4      | 121.9        | 39.37           |
| 217.0                | 022.0000    | 0082.9      | 035.0        | 029.6                | 011.5000    | 0259.5      | 121.9        | 39.35           |
| 218.0                | 022.0000    | 0082.8      | 035.0        | 029.3                | 011.5000    | 0259.6      | 122.0        | 39.34           |
| 219.0                | 022.0000    | 0082.5      | 034.9        | 029.0                | 011.5000    | 0259.6      | 122.2        | 39.30           |
| 220.0                | 022.0000    | 0082.2      | 034.8        | 028.7                | 011.5000    | 0259.7      | 122.4        | 39.27           |
| 221.0                | 022.0000    | 0081.9      | 034.8        | 028.4                | 011.5000    | 0259.6      | 122.5        | 39.23           |
| 222.0                | 022.0000    | 0081.6      | 034.7        | 028.2                | 011.5000    | 0259.6      | 122.7        | 39.19           |
| 223.0                | 022.0000    | 0081.3      | 034.6        | 027.9                | 011.5000    | 0259.5      | 122.9        | 39.14           |
| 224.0                | 022.0000    | 0081.0      | 034.6        | 027.6                | 011.5000    | 0259.4      | 123.1        | 39.10           |
| 225.0                | 022.0000    | 0081.0      | 034.6        | 027.4                | 011.5000    | 0259.3      | 123.3        | 39.06           |
| 226.0                | 022.0000    | 0081.1      | 034.6        | 027.1                | 011.5000    | 0259.2      | 123.5        | 39.02           |
| 227.0                | 022.0000    | 0081.1      | 034.6        | 026.9                | 011.5000    | 0259.1      | 123.7        | 38.98           |
| 228.0                | 022.0000    | 0081.0      | 034.6        | 026.6                | 011.5000    | 0258.9      | 123.9        | 38.93           |
| 229.0                | 022.0000    | 0080.9      | 034.6        | 026.3                | 011.5000    | 0258.8      | 124.1        | 38.88           |
| 230.0                | 022.0000    | 0080.9      | 034.6        | 026.1                | 011.5000    | 0258.6      | 124.4        | 38.82           |
| 231.0                | 022.0000    | 0081.0      | 034.6        | 025.8                | 011.5000    | 0258.4      | 124.6        | 38.77           |
| 232.0                | 022.0000    | 0081.2      | 034.6        | 025.6                | 011.5000    | 0258.3      | 124.8        | 38.72           |
| 233.0                | 022.0000    | 0081.2      | 034.6        | 025.3                | 011.5000    | 0258.1      | 125.1        | 38.66           |
| 234.0                | 022.0000    | 0081.1      | 034.6        | 025.1                | 011.5000    | 0257.9      | 125.4        | 38.60           |
| 235.0                | 022.0000    | 0080.9      | 034.6        | 024.9                | 011.5000    | 0257.8      | 125.7        | 38.53           |
| 236.0                | 022.0000    | 0080.9      | 034.6        | 024.6                | 011.5000    | 0257.6      | 126.0        | 38.46           |
| 237.0                | 022.0000    | 0080.9      | 034.6        | 024.4                | 011.5000    | 0257.4      | 126.4        | 38.40           |
| 238.0                | 022.0000    | 0080.7      | 034.5        | 024.2                | 011.5000    | 0257.3      | 126.7        | 38.32           |
| 239.0                | 022.0000    | 0080.2      | 034.4        | 024.0                | 011.5000    | 0257.1      | 127.1        | 38.23           |

| 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) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 240.0                | 022.0000    | 0079.7      | 034.3        | 023.8                | 011.5000    | 0256.9      | 127.6        | 38.14           |
| 241.0                | 022.0000    | 0079.1      | 034.2        | 023.6                | 011.5000    | 0256.8      | 128.0        | 38.05           |
| 242.0                | 022.0000    | 0078.5      | 034.1        | 023.4                | 011.5000    | 0256.7      | 128.5        | 37.95           |
| 243.0                | 022.0000    | 0077.9      | 033.9        | 023.2                | 011.5000    | 0256.5      | 129.0        | 37.86           |
| 244.0                | 022.0000    | 0077.4      | 033.8        | 023.1                | 011.5000    | 0256.4      | 129.4        | 37.76           |
| 245.0                | 022.0000    | 0077.1      | 033.8        | 022.9                | 011.5000    | 0256.2      | 129.8        | 37.68           |
| 246.0                | 022.0000    | 0077.0      | 033.8        | 022.7                | 011.5000    | 0256.1      | 130.3        | 37.59           |
| 247.0                | 022.0000    | 0076.8      | 033.7        | 022.5                | 011.5000    | 0256.0      | 130.7        | 37.50           |
| 248.0                | 022.0000    | 0076.4      | 033.6        | 022.4                | 011.5000    | 0255.9      | 131.2        | 37.40           |
| 249.0                | 022.0000    | 0076.3      | 033.6        | 022.2                | 011.5000    | 0255.7      | 131.6        | 37.32           |
| 250.0                | 022.0000    | 0076.5      | 033.7        | 022.0                | 011.5000    | 0255.6      | 132.0        | 37.23           |
| 251.0                | 022.0000    | 0076.9      | 033.8        | 021.8                | 011.5000    | 0255.5      | 132.4        | 37.15           |
| 252.0                | 022.0000    | 0077.3      | 033.8        | 021.6                | 011.5000    | 0255.4      | 132.8        | 37.07           |
| 253.0                | 022.0000    | 0077.7      | 033.9        | 021.4                | 011.5000    | 0255.3      | 133.2        | 36.99           |
| 254.0                | 022.0000    | 0078.0      | 034.0        | 021.3                | 011.5000    | 0255.2      | 133.6        | 36.90           |
| 255.0                | 022.0000    | 0077.8      | 033.9        | 021.1                | 011.5000    | 0255.1      | 134.1        | 36.80           |
| 256.0                | 022.0000    | 0077.0      | 033.8        | 021.0                | 011.5000    | 0255.0      | 134.7        | 36.69           |
| 257.0                | 022.0000    | 0076.2      | 033.6        | 021.0                | 011.5000    | 0255.0      | 135.3        | 36.57           |
| 258.0                | 022.0000    | 0075.4      | 033.4        | 020.9                | 011.5000    | 0255.0      | 135.8        | 36.46           |
| 259.0                | 022.0000    | 0075.2      | 033.4        | 020.8                | 011.5000    | 0254.9      | 136.3        | 36.35           |
| 260.0                | 022.0000    | 0075.3      | 033.4        | 020.6                | 011.5000    | 0254.8      | 136.8        | 36.26           |
| 261.0                | 022.0000    | 0075.5      | 033.5        | 020.5                | 011.5000    | 0254.7      | 137.3        | 36.16           |
| 262.0                | 022.0000    | 0076.1      | 033.6        | 020.3                | 011.5000    | 0254.7      | 137.8        | 36.07           |
| 263.0                | 022.0000    | 0077.1      | 033.8        | 020.1                | 011.5000    | 0254.6      | 138.2        | 35.99           |
| 264.0                | 022.0000    | 0077.9      | 033.9        | 020.0                | 011.5000    | 0254.5      | 138.6        | 35.90           |
| 265.0                | 022.0000    | 0078.6      | 034.1        | 019.8                | 011.5000    | 0254.4      | 139.1        | 35.80           |
| 266.0                | 022.0000    | 0079.1      | 034.2        | 019.7                | 011.5000    | 0254.3      | 139.6        | 35.70           |
| 267.0                | 022.0000    | 0079.7      | 034.3        | 019.5                | 011.5000    | 0254.2      | 140.1        | 35.61           |
| 268.0                | 022.0000    | 0080.2      | 034.4        | 019.4                | 011.5000    | 0254.1      | 140.6        | 35.50           |
| 269.0                | 022.0000    | 0080.1      | 034.4        | 019.3                | 011.5000    | 0254.1      | 141.2        | 35.39           |
| 270.0                | 022.0000    | 0079.8      | 034.3        | 019.2                | 011.5000    | 0254.0      | 141.8        | 35.28           |
| 271.0                | 022.0000    | 0079.5      | 034.3        | 019.2                | 011.5000    | 0254.0      | 142.4        | 35.17           |
| 272.0                | 022.0000    | 0079.2      | 034.2        | 019.1                | 011.5000    | 0254.0      | 142.9        | 35.06           |

09-14-2007 NGDC 30 SEC Terrain Data

KCVS BLED20001215AAI  
 Channel = 219C2  
 Max ERP = 11.5 kW  
 RCAMSL = 643 M  
 N. Lat. 38 39 58.0  
 W. Lng. 97 41 30.0  
 Protected  
 60 dBu

AP2389  
 Channel = 219C3  
 Max ERP = 22 kW  
 RCAMSL = 480 M  
 N. Lat. 39 52 12.0  
 W. Lng. 96 44 45.0  
 Interfering  
 40 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) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 331.0                | 011.5000    | 0231.1      | 046.6        | 228.5                | 022.0000    | 0080.9      | 139.4        | 34.12           |
| 332.0                | 011.5000    | 0230.9      | 046.5        | 228.4                | 022.0000    | 0080.9      | 138.7        | 34.26           |
| 333.0                | 011.5000    | 0230.6      | 046.5        | 228.3                | 022.0000    | 0080.9      | 137.9        | 34.41           |
| 334.0                | 011.5000    | 0230.5      | 046.5        | 228.2                | 022.0000    | 0081.0      | 137.1        | 34.56           |
| 335.0                | 011.5000    | 0230.9      | 046.5        | 228.1                | 022.0000    | 0081.0      | 136.3        | 34.71           |
| 336.0                | 011.5000    | 0231.7      | 046.6        | 228.0                | 022.0000    | 0081.0      | 135.5        | 34.86           |
| 337.0                | 011.5000    | 0232.9      | 046.7        | 227.9                | 022.0000    | 0081.0      | 134.7        | 35.02           |
| 338.0                | 011.5000    | 0233.9      | 046.8        | 227.9                | 022.0000    | 0081.0      | 133.9        | 35.17           |
| 339.0                | 011.5000    | 0234.4      | 046.8        | 227.7                | 022.0000    | 0081.0      | 133.2        | 35.32           |
| 340.0                | 011.5000    | 0234.6      | 046.8        | 227.6                | 022.0000    | 0081.0      | 132.4        | 35.47           |
| 341.0                | 011.5000    | 0234.6      | 046.8        | 227.5                | 022.0000    | 0081.0      | 131.6        | 35.61           |
| 342.0                | 011.5000    | 0234.7      | 046.8        | 227.3                | 022.0000    | 0081.1      | 130.9        | 35.75           |
| 343.0                | 011.5000    | 0234.8      | 046.8        | 227.2                | 022.0000    | 0081.1      | 130.2        | 35.89           |
| 344.0                | 011.5000    | 0234.8      | 046.8        | 227.0                | 022.0000    | 0081.1      | 129.4        | 36.03           |
| 345.0                | 011.5000    | 0234.6      | 046.8        | 226.8                | 022.0000    | 0081.1      | 128.7        | 36.16           |
| 346.0                | 011.5000    | 0234.1      | 046.8        | 226.6                | 022.0000    | 0081.1      | 128.0        | 36.29           |
| 347.0                | 011.5000    | 0233.6      | 046.7        | 226.4                | 022.0000    | 0081.1      | 127.3        | 36.42           |
| 348.0                | 011.5000    | 0233.4      | 046.7        | 226.2                | 022.0000    | 0081.1      | 126.6        | 36.54           |
| 349.0                | 011.5000    | 0233.4      | 046.7        | 226.0                | 022.0000    | 0081.1      | 125.9        | 36.66           |
| 350.0                | 011.5000    | 0233.3      | 046.7        | 225.8                | 022.0000    | 0081.1      | 125.3        | 36.78           |
| 351.0                | 011.5000    | 0233.2      | 046.7        | 225.6                | 022.0000    | 0081.0      | 124.6        | 36.90           |
| 352.0                | 011.5000    | 0233.5      | 046.7        | 225.4                | 022.0000    | 0081.0      | 123.9        | 37.02           |
| 353.0                | 011.5000    | 0233.9      | 046.8        | 225.2                | 022.0000    | 0081.0      | 123.3        | 37.13           |
| 354.0                | 011.5000    | 0234.0      | 046.8        | 224.9                | 022.0000    | 0081.0      | 122.6        | 37.25           |
| 355.0                | 011.5000    | 0234.5      | 046.8        | 224.7                | 022.0000    | 0081.0      | 122.0        | 37.36           |
| 356.0                | 011.5000    | 0235.2      | 046.8        | 224.4                | 022.0000    | 0081.0      | 121.3        | 37.47           |
| 357.0                | 011.5000    | 0236.4      | 046.9        | 224.2                | 022.0000    | 0081.0      | 120.7        | 37.59           |
| 358.0                | 011.5000    | 0237.8      | 047.0        | 224.0                | 022.0000    | 0081.0      | 120.0        | 37.70           |
| 359.0                | 011.5000    | 0239.2      | 047.1        | 223.7                | 022.0000    | 0081.1      | 119.4        | 37.82           |
| 000.0                | 011.5000    | 0240.6      | 047.2        | 223.5                | 022.0000    | 0081.1      | 118.7        | 37.93           |
| 001.0                | 011.5000    | 0242.2      | 047.3        | 223.2                | 022.0000    | 0081.2      | 118.1        | 38.05           |
| 002.0                | 011.5000    | 0243.8      | 047.5        | 222.9                | 022.0000    | 0081.3      | 117.4        | 38.16           |
| 003.0                | 011.5000    | 0245.5      | 047.6        | 222.7                | 022.0000    | 0081.4      | 116.8        | 38.27           |
| 004.0                | 011.5000    | 0247.3      | 047.7        | 222.4                | 022.0000    | 0081.5      | 116.2        | 38.38           |

| 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) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 005.0                | 011.5000    | 0248.7      | 047.8        | 222.1                | 022.0000    | 0081.6      | 115.6        | 38.49           |
| 006.0                | 011.5000    | 0249.8      | 047.9        | 221.8                | 022.0000    | 0081.7      | 115.0        | 38.59           |
| 007.0                | 011.5000    | 0250.4      | 047.9        | 221.4                | 022.0000    | 0081.8      | 114.5        | 38.69           |
| 008.0                | 011.5000    | 0250.8      | 047.9        | 221.1                | 022.0000    | 0081.9      | 114.1        | 38.78           |
| 009.0                | 011.5000    | 0251.4      | 048.0        | 220.7                | 022.0000    | 0082.0      | 113.6        | 38.87           |
| 010.0                | 011.5000    | 0252.2      | 048.0        | 220.4                | 022.0000    | 0082.1      | 113.1        | 38.96           |
| 011.0                | 011.5000    | 0252.9      | 048.1        | 220.0                | 022.0000    | 0082.2      | 112.6        | 39.04           |
| 012.0                | 011.5000    | 0253.1      | 048.1        | 219.6                | 022.0000    | 0082.3      | 112.2        | 39.12           |
| 013.0                | 011.5000    | 0253.1      | 048.1        | 219.3                | 022.0000    | 0082.4      | 111.8        | 39.20           |
| 014.0                | 011.5000    | 0253.1      | 048.1        | 218.9                | 022.0000    | 0082.6      | 111.5        | 39.27           |
| 015.0                | 011.5000    | 0253.2      | 048.1        | 218.5                | 022.0000    | 0082.7      | 111.1        | 39.34           |
| 016.0                | 011.5000    | 0253.4      | 048.1        | 218.1                | 022.0000    | 0082.8      | 110.8        | 39.40           |
| 017.0                | 011.5000    | 0253.4      | 048.1        | 217.7                | 022.0000    | 0082.9      | 110.5        | 39.46           |
| 018.0                | 011.5000    | 0253.5      | 048.1        | 217.3                | 022.0000    | 0082.9      | 110.2        | 39.52           |
| 019.0                | 011.5000    | 0253.9      | 048.2        | 216.8                | 022.0000    | 0082.9      | 109.9        | 39.57           |
| 020.0                | 011.5000    | 0254.5      | 048.2        | 216.4                | 022.0000    | 0082.9      | 109.6        | 39.62           |
| 021.0                | 011.5000    | 0255.0      | 048.2        | 216.0                | 022.0000    | 0082.9      | 109.4        | 39.67           |
| 022.0                | 011.5000    | 0255.6      | 048.3        | 215.6                | 022.0000    | 0082.9      | 109.1        | 39.72           |
| 023.0                | 011.5000    | 0256.3      | 048.3        | 215.2                | 022.0000    | 0082.9      | 108.9        | 39.76           |
| 024.0                | 011.5000    | 0257.1      | 048.4        | 214.7                | 022.0000    | 0083.0      | 108.7        | 39.81           |
| 025.0                | 011.5000    | 0257.9      | 048.4        | 214.3                | 022.0000    | 0083.0      | 108.5        | 39.85           |
| 026.0                | 011.5000    | 0258.6      | 048.5        | 213.8                | 022.0000    | 0083.1      | 108.3        | 39.88           |
| 027.0                | 011.5000    | 0259.1      | 048.5        | 213.4                | 022.0000    | 0083.2      | 108.2        | 39.91           |
| 028.0                | 011.5000    | 0259.5      | 048.6        | 213.0                | 022.0000    | 0083.4      | 108.0        | 39.94           |
| 029.0                | 011.5000    | 0259.6      | 048.6        | 212.5                | 022.0000    | 0083.7      | 108.0        | 39.97           |
| 030.0                | 011.5000    | 0259.4      | 048.6        | 212.1                | 022.0000    | 0084.0      | 108.0        | 39.98           |
| 031.0                | 011.5000    | 0258.7      | 048.5        | 211.6                | 022.0000    | 0084.2      | 108.0        | 39.98           |
| 032.0                | 011.5000    | 0258.0      | 048.5        | 211.2                | 022.0000    | 0084.4      | 108.1        | 39.97           |
| 033.0                | 011.5000    | 0257.3      | 048.4        | 210.7                | 022.0000    | 0084.4      | 108.1        | 39.96           |
| 034.0                | 011.5000    | 0257.0      | 048.4        | 210.3                | 022.0000    | 0084.3      | 108.2        | 39.94           |
| 035.0                | 011.5000    | 0256.7      | 048.4        | 209.8                | 022.0000    | 0084.2      | 108.3        | 39.92           |
| 036.0                | 011.5000    | 0256.4      | 048.3        | 209.4                | 022.0000    | 0084.0      | 108.4        | 39.90           |
| 037.0                | 011.5000    | 0256.0      | 048.3        | 208.9                | 022.0000    | 0084.0      | 108.5        | 39.87           |
| 038.0                | 011.5000    | 0255.6      | 048.3        | 208.5                | 022.0000    | 0084.0      | 108.7        | 39.84           |
| 039.0                | 011.5000    | 0255.5      | 048.3        | 208.1                | 022.0000    | 0084.0      | 108.8        | 39.81           |
| 040.0                | 011.5000    | 0255.6      | 048.3        | 207.6                | 022.0000    | 0084.1      | 109.0        | 39.78           |
| 041.0                | 011.5000    | 0255.5      | 048.3        | 207.2                | 022.0000    | 0084.0      | 109.2        | 39.74           |
| 042.0                | 011.5000    | 0255.2      | 048.3        | 206.8                | 022.0000    | 0083.9      | 109.5        | 39.69           |
| 043.0                | 011.5000    | 0254.8      | 048.2        | 206.4                | 022.0000    | 0083.6      | 109.7        | 39.63           |
| 044.0                | 011.5000    | 0254.5      | 048.2        | 205.9                | 022.0000    | 0083.3      | 110.0        | 39.57           |
| 045.0                | 011.5000    | 0254.3      | 048.2        | 205.5                | 022.0000    | 0082.9      | 110.3        | 39.50           |
| 046.0                | 011.5000    | 0254.2      | 048.2        | 205.1                | 022.0000    | 0082.5      | 110.6        | 39.43           |
| 047.0                | 011.5000    | 0254.0      | 048.2        | 204.7                | 022.0000    | 0082.1      | 110.9        | 39.36           |
| 048.0                | 011.5000    | 0253.6      | 048.1        | 204.3                | 022.0000    | 0081.8      | 111.3        | 39.28           |
| 049.0                | 011.5000    | 0253.2      | 048.1        | 203.9                | 022.0000    | 0081.5      | 111.6        | 39.20           |
| 050.0                | 011.5000    | 0252.7      | 048.1        | 203.6                | 022.0000    | 0081.2      | 112.0        | 39.12           |
| 051.0                | 011.5000    | 0252.3      | 048.0        | 203.2                | 022.0000    | 0081.1      | 112.4        | 39.04           |
| 052.0                | 011.5000    | 0251.9      | 048.0        | 202.8                | 022.0000    | 0080.9      | 112.9        | 38.96           |
| 053.0                | 011.5000    | 0251.8      | 048.0        | 202.5                | 022.0000    | 0080.9      | 113.3        | 38.88           |
| 054.0                | 011.5000    | 0251.6      | 048.0        | 202.1                | 022.0000    | 0081.0      | 113.7        | 38.80           |
| 055.0                | 011.5000    | 0251.5      | 048.0        | 201.7                | 022.0000    | 0081.1      | 114.2        | 38.73           |

| 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) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 056.0                | 011.5000    | 0251.2      | 048.0        | 201.4                | 022.0000    | 0081.4      | 114.7        | 38.65           |
| 057.0                | 011.5000    | 0250.9      | 048.0        | 201.1                | 022.0000    | 0081.6      | 115.2        | 38.56           |
| 058.0                | 011.5000    | 0250.5      | 047.9        | 200.7                | 022.0000    | 0081.9      | 115.7        | 38.48           |
| 059.0                | 011.5000    | 0249.9      | 047.9        | 200.4                | 022.0000    | 0082.1      | 116.3        | 38.39           |
| 060.0                | 011.5000    | 0249.1      | 047.8        | 200.1                | 022.0000    | 0082.2      | 116.8        | 38.30           |
| 061.0                | 011.5000    | 0248.4      | 047.8        | 199.8                | 022.0000    | 0082.3      | 117.4        | 38.20           |
| 062.0                | 011.5000    | 0247.9      | 047.7        | 199.6                | 022.0000    | 0082.3      | 118.0        | 38.09           |
| 063.0                | 011.5000    | 0247.7      | 047.7        | 199.3                | 022.0000    | 0082.3      | 118.6        | 37.99           |
| 064.0                | 011.5000    | 0247.8      | 047.7        | 199.0                | 022.0000    | 0082.2      | 119.2        | 37.89           |
| 065.0                | 011.5000    | 0247.8      | 047.7        | 198.7                | 022.0000    | 0082.0      | 119.8        | 37.78           |
| 066.0                | 011.5000    | 0247.4      | 047.7        | 198.4                | 022.0000    | 0081.9      | 120.4        | 37.67           |
| 067.0                | 011.5000    | 0246.7      | 047.7        | 198.2                | 022.0000    | 0081.7      | 121.0        | 37.55           |
| 068.0                | 011.5000    | 0246.1      | 047.6        | 198.0                | 022.0000    | 0081.5      | 121.7        | 37.42           |
| 069.0                | 011.5000    | 0245.6      | 047.6        | 197.7                | 022.0000    | 0081.2      | 122.4        | 37.30           |
| 070.0                | 011.5000    | 0245.2      | 047.6        | 197.5                | 022.0000    | 0081.0      | 123.0        | 37.17           |
| 071.0                | 011.5000    | 0244.8      | 047.5        | 197.3                | 022.0000    | 0080.8      | 123.7        | 37.05           |
| 072.0                | 011.5000    | 0244.2      | 047.5        | 197.1                | 022.0000    | 0080.5      | 124.4        | 36.92           |
| 073.0                | 011.5000    | 0243.8      | 047.5        | 196.9                | 022.0000    | 0080.3      | 125.1        | 36.78           |
| 074.0                | 011.5000    | 0243.7      | 047.4        | 196.7                | 022.0000    | 0080.1      | 125.8        | 36.65           |
| 075.0                | 011.5000    | 0243.7      | 047.4        | 196.5                | 022.0000    | 0079.9      | 126.5        | 36.52           |
| 076.0                | 011.5000    | 0243.8      | 047.5        | 196.3                | 022.0000    | 0079.7      | 127.2        | 36.38           |
| 077.0                | 011.5000    | 0243.9      | 047.5        | 196.1                | 022.0000    | 0079.5      | 128.0        | 36.24           |
| 078.0                | 011.5000    | 0243.8      | 047.5        | 195.9                | 022.0000    | 0079.3      | 128.7        | 36.10           |
| 079.0                | 011.5000    | 0243.5      | 047.4        | 195.8                | 022.0000    | 0079.2      | 129.4        | 35.96           |
| 080.0                | 011.5000    | 0243.2      | 047.4        | 195.6                | 022.0000    | 0079.0      | 130.2        | 35.81           |
| 081.0                | 011.5000    | 0242.9      | 047.4        | 195.5                | 022.0000    | 0078.9      | 130.9        | 35.67           |
| 082.0                | 011.5000    | 0242.5      | 047.4        | 195.3                | 022.0000    | 0078.8      | 131.7        | 35.52           |
| 083.0                | 011.5000    | 0242.2      | 047.3        | 195.2                | 022.0000    | 0078.7      | 132.5        | 35.37           |
| 084.0                | 011.5000    | 0242.1      | 047.3        | 195.1                | 022.0000    | 0078.6      | 133.3        | 35.22           |
| 085.0                | 011.5000    | 0241.9      | 047.3        | 195.0                | 022.0000    | 0078.6      | 134.0        | 35.07           |
| 086.0                | 011.5000    | 0241.8      | 047.3        | 194.9                | 022.0000    | 0078.5      | 134.8        | 34.92           |
| 087.0                | 011.5000    | 0241.4      | 047.3        | 194.8                | 022.0000    | 0078.5      | 135.6        | 34.76           |
| 088.0                | 011.5000    | 0241.0      | 047.3        | 194.7                | 022.0000    | 0078.5      | 136.4        | 34.61           |
| 089.0                | 011.5000    | 0240.6      | 047.2        | 194.6                | 022.0000    | 0078.4      | 137.2        | 34.46           |
| 090.0                | 011.5000    | 0240.5      | 047.2        | 194.5                | 022.0000    | 0078.4      | 138.0        | 34.30           |
| 091.0                | 011.5000    | 0240.8      | 047.2        | 194.4                | 022.0000    | 0078.4      | 138.8        | 34.15           |