SHORT-SPACED MOBILE
OUTSIDE EXISTING BASE STATION'S
40 dBu CONTOUR

Azimuth (Deg T)	22.0 dBu (mi)
145.00	19.70
150.00	18.94
155.00	19.76
160.00	22.76
165.00	19.00
170.00	20.99
175.00	20.71
180.00	21.14
185.00	23.97
190.00	27.00
195.00	25.61
200.00	22.89
210.00	23.39
215.00	17.50
220.00	14.98
225.00	17.95
230.00	14.94
235.00	18.53
240.00	17.40
245.00	10.09
250.00	10.36
255.00	10.28
260.00	9.82
265.00	10.92
270.00	12.19
275.00	12.48
280.00	12.36
285.00	8.63
290.00	11.64
295.00	14.78
300.00	13.46
305.00	11.59
310.00	13.11
315.00	11.45
320.00	9.78
325.00	12.00
330.00	13.19
335.00	12.30
340.00	12.89
345.00	10.59
350.00	11.49
355.00	10.74

AVERAGE: 16.30 Miles for 22 dBu Contour.

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:45:50.0N
Longitude: 77:07:00.0W
Transmitter center of radiation: 109.0 ft MSL (9 ft AGL)
Frequency: 809.000 MHz
Power: 70.000 W
Non-directional antenna

Receiver antenna: 190.0 ft AGL

72 radials, from .20 mi to 30.00 mi in .20 mi steps.
Path loss based on peak attenuation at inflection points
and 1.333 earth curvature.

Azimuth (Deg T)	18.0 dBu (mi)
.00	10.06
5.00	10.01
10.00	9.74
15.00	9.51
20.00	18.70
25.00	8.21
30.00	14.54
35.00	21.59
40.00	22.97
45.00	25.21
50.00	15.00
55.00	16.79
60.00	15.56
65.00	17.07
70.00	17.11
75.00	17.05
80.00	16.91
85.00	14.35
90.00	16.62
95.00	17.57
100.00	18.83
105.00	19.38
110.00	21.94
115.00	22.38
120.00	23.21
125.00	22.24
130.00	26.01
135.00	19.95

SHORT-SPACED MOBILE
OUTSIDE EXISTING BASE STATION'S
40 dBu CONTOUR

Azimuth (Deg T)	18.0 dBu (mi)
140.00	23.77
145.00	19.76
150.00	19.76
155.00	19.81
160.00	23.30
165.00	19.06
170.00	21.14
175.00	20.88
180.00	21.17
185.00	24.25
190.00	27.50
195.00	26.25
200.00	22.95
210.00	25.84
215.00	17.54
220.00	17.16
225.00	18.86
230.00	14.97
235.00	20.23
240.00	17.47
245.00	10.11
250.00	10.40
255.00	10.31
260.00	9.87
265.00	11.05
270.00	12.42
275.00	12.59
280.00	12.56
285.00	8.72
290.00	11.73
295.00	15.02
300.00	13.51
305.00	11.78
310.00	13.19
315.00	11.68
320.00	10.33
325.00	12.42
330.00	13.24
335.00	12.53
340.00	12.94
345.00	10.81
350.00	11.72
355.00	10.82

AVERAGE: 16.80 Miles for 18 dBu Contour.

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:46:00.0N
Longitude: 77:07:00.0W
Transmitter center of radiation: 106.0 ft MSL (6 ft AGL)
Frequency: 809.000 MHz
Power: 3.000 W
Non-directional antenna

Receiver antenna: 190.0 ft AGL

72 radials, from .20 mi to 30.00 mi in .20 mi steps.
Path loss based on peak attenuation at inflection points
and 1.333 earth curvature.

Azimuth (Deg T)	40.0 dBu (mi)
.00	2.40
5.00	2.48
10.00	2.83
15.00	2.36
20.00	5.36
25.00	4.11
30.00	2.79
35.00	3.10
40.00	5.07
45.00	9.41
50.00	3.09
55.00	4.51
60.00	10.24
65.00	2.93
70.00	2.99
75.00	9.10
80.00	5.35
85.00	12.19
90.00	3.67
95.00	4.68
100.00	11.77
105.00	11.26
110.00	16.08
115.00	18.02
120.00	18.29
125.00	18.10
130.00	17.70
135.00	16.46
140.00	17.83

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

Azimuth (Deg T)	40.0 dBu (mi)
145.00	16.57
150.00	17.13
155.00	15.71
160.00	15.87
165.00	17.61
170.00	19.27
175.00	17.58
180.00	19.68
185.00	20.48
190.00	22.04
195.00	20.62
200.00	13.70
205.00	12.48
210.00	11.47
215.00	9.89
220.00	8.82
225.00	9.29
230.00	9.10
235.00	9.43
240.00	5.12
245.00	5.97
250.00	4.60
255.00	5.83
260.00	5.69
265.00	9.28
270.00	9.65
275.00	4.75
280.00	4.64
285.00	4.73
290.00	5.72
295.00	6.52
300.00	6.69
305.00	7.43
310.00	7.36
315.00	6.61
320.00	6.96
325.00	6.85
330.00	9.08
335.00	7.06
340.00	6.71
345.00	4.22
350.00	4.34
355.00	2.52

AVERAGE: 9.43 Miles for 40 dBu Contour.

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:46:00.0N
Longitude: 77:07:00.0W
Transmitter center of radiation: 106.0 ft MSL (6 ft AGL)
Frequency: 809.000 MHz
Power: 3.000 W
Non-directional antenna

Receiver antenna: 190.0 ft AGL

72 radials, from .20 mi to 30.00 mi in .20 mi steps.
Path loss based on peak attenuation at inflection points
and 1.333 earth curvature.

Azimuth (Deg T)	22.0 dBu (mi)
.00	5.79
5.00	5.13
10.00	8.72
15.00	5.43
20.00	7.95
25.00	6.88
30.00	7.05
35.00	7.28
40.00	14.58
45.00	18.98
50.00	5.13
55.00	14.70
60.00	15.37
65.00	10.87
70.00	10.24
75.00	15.04
80.00	15.48
85.00	14.06
90.00	13.97
95.00	14.33
100.00	16.26
105.00	17.57
110.00	19.00
115.00	21.20
120.00	22.31
125.00	21.20
130.00	19.35
135.00	17.96
140.00	19.44

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

Azimuth (Deg T)	22.0 dBu (mi)
145.00	19.81
150.00	18.59
155.00	18.68
160.00	17.97
165.00	18.21
170.00	20.90
175.00	20.02
180.00	19.99
185.00	23.51
190.00	24.00
195.00	22.51
200.00	21.50
205.00	19.99
210.00	17.87
215.00	14.91
220.00	17.44
225.00	13.99
230.00	14.94
235.00	16.39
240.00	9.81
245.00	10.07
250.00	8.52
255.00	9.59
260.00	9.53
265.00	10.95
270.00	11.05
275.00	11.85
280.00	7.22
285.00	7.65
290.00	9.60
295.00	6.90
300.00	11.46
305.00	10.56
310.00	8.74
315.00	7.32
320.00	9.94
325.00	9.57
330.00	12.81
335.00	10.34
340.00	11.03
345.00	8.20
350.00	10.40
355.00	6.37

AVERAGE: 13.64 Miles for 22 dBu Contour.

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:46:00.0N
Longitude: 77:07:00.0W
Transmitter center of radiation: 106.0 ft MSL (6 ft AGL)
Frequency: 809.000 MHz
Power: 3.000 W
Non-directional antenna

Receiver antenna: 190.0 ft AGL

72 radials, from .20 mi to 30.00 mi in .20 mi steps.
Path loss based on peak attenuation at inflection points
and 1.333 earth curvature.

Azimuth (Deg T)	18.0 dBu (mi)
.00	6.59
5.00	5.70
10.00	9.21
15.00	5.56
20.00	8.13
25.00	6.98
30.00	7.35
35.00	8.00
40.00	19.09
45.00	21.81

EXISTING PORTABLE INSIDE

EXISTING BASE STATION'S
40 dBu CONTOUR.

Azimuth (Deg T)	18.0 dBu (mi)
145.00	19.83
150.00	19.00
155.00	19.34
160.00	22.08
165.00	18.63
170.00	20.98
175.00	20.29
180.00	21.28
185.00	23.82
190.00	24.10
195.00	23.13
200.00	21.70
205.00	22.13
210.00	18.24
215.00	17.36
220.00	17.51
225.00	17.82
230.00	15.04
235.00	17.27

APPENDIX B

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:55:13.0N
Longitude: 77:13:48.0W
Transmitter center of radiation: 700.0 ft MSL (190 ft AGL)
Frequency: 854.000 MHz
Power: 500.000 W
Non-directional antenna

Receiver antenna: 9.0 ft AGL

150 radial, from .20 mi to 30.00 mi in .20 mi steps.
Path loss based on peak attenuation at inflection points
and 1.333 earth curvature.

Az 150.0	500.000 W	.20 mi	113.76	dBu
Az 150.0	500.000 W	.40 mi	107.74	dBu
Az 150.0	500.000 W	.60 mi	104.21	dBu
Az 150.0	500.000 W	.80 mi	101.71	dBu
Az 150.0	500.000 W	1.00 mi	99.78	dBu
Az 150.0	500.000 W	1.20 mi	98.19	dBu
Az 150.0	500.000 W	1.40 mi	96.85	dBu
Az 150.0	500.000 W	1.60 mi	95.69	dBu
Az 150.0	500.000 W	1.80 mi	94.67	dBu
Az 150.0	500.000 W	2.00 mi	93.76	dBu
Az 150.0	500.000 W	2.20 mi	92.93	dBu
Az 150.0	500.000 W	2.40 mi	84.12	dBu
Az 150.0	500.000 W	2.60 mi	90.07	dBu
Az 150.0	500.000 W	2.80 mi	85.68	dBu
Az 150.0	500.000 W	3.00 mi	87.71	dBu
Az 150.0	500.000 W	3.20 mi	89.67	dBu
Az 150.0	500.000 W	3.40 mi	89.15	dBu
Az 150.0	500.000 W	3.60 mi	83.77	dBu
Az 150.0	500.000 W	3.80 mi	81.62	dBu
Az 150.0	500.000 W	4.00 mi	87.74	dBu
Az 150.0	500.000 W	4.20 mi	71.67	dBu
Az 150.0	500.000 W	4.40 mi	76.29	dBu
Az 150.0	500.000 W	4.60 mi	81.47	dBu
Az 150.0	500.000 W	4.80 mi	78.25	dBu
Az 150.0	500.000 W	5.00 mi	74.52	dBu
Az 150.0	500.000 W	5.20 mi	73.91	dBu
Az 150.0	500.000 W	5.40 mi	74.71	dBu
Az 150.0	500.000 W	5.60 mi	56.78	dBu
Az 150.0	500.000 W	5.80 mi	64.44	dBu
Az 150.0	500.000 W	6.00 mi	71.39	dBu

EXISTING BASE STATION

Az 150.0	500.000 W	6.20 mi	83.93 dBu
Az 150.0	500.000 W	6.40 mi	83.65 dBu
Az 150.0	500.000 W	6.60 mi	83.39 dBu
Az 150.0	500.000 W	6.80 mi	77.36 dBu
Az 150.0	500.000 W	7.00 mi	71.97 dBu
Az 150.0	500.000 W	7.20 mi	70.52 dBu
Az 150.0	500.000 W	7.40 mi	68.75 dBu
Az 150.0	500.000 W	7.60 mi	70.45 dBu
Az 150.0	500.000 W	7.80 mi	72.05 dBu
Az 150.0	500.000 W	8.00 mi	73.32 dBu
Az 150.0	500.000 W	8.20 mi	67.99 dBu
Az 150.0	500.000 W	8.40 mi	45.98 dBu
Az 150.0	500.000 W	8.60 mi	50.10 dBu
Az 150.0	500.000 W	8.80 mi	50.37 dBu
Az 150.0	500.000 W	9.00 mi	52.77 dBu
Az 150.0	500.000 W	9.20 mi	49.39 dBu
Az 150.0	500.000 W	9.40 mi	50.44 dBu
Az 150.0	500.000 W	9.60 mi	64.95 dBu
Az 150.0	500.000 W	9.80 mi	74.34 dBu
Az 150.0	500.000 W	10.00 mi	74.45 dBu
Az 150.0	500.000 W	10.20 mi	75.89 dBu
Az 150.0	500.000 W	10.40 mi	77.58 dBu
Az 150.0	500.000 W	10.60 mi	78.84 dBu
Az 150.0	500.000 W	10.80 mi	79.11 dBu
Az 150.0	500.000 W	11.00 mi	75.75 dBu
Az 150.0	500.000 W	11.20 mi	57.75 dBu
Az 150.0	500.000 W	11.40 mi	51.28 dBu
Az 150.0	500.000 W	11.60 mi	48.73 dBu
Az 150.0	500.000 W	11.80 mi	51.45 dBu
Az 150.0	500.000 W	12.00 mi	54.33 dBu
Az 150.0	500.000 W	12.20 mi	46.81 dBu
Az 150.0	500.000 W	12.40 mi	34.57 dBu
Az 150.0	500.000 W	12.60 mi	37.45 dBu
Az 150.0	500.000 W	12.80 mi	40.03 dBu
Az 150.0	500.000 W	13.00 mi	43.10 dBu
Az 150.0	500.000 W	13.20 mi	43.98 dBu
Az 150.0	500.000 W	13.40 mi	47.26 dBu
Az 150.0	500.000 W	13.60 mi	51.09 dBu
Az 150.0	500.000 W	13.80 mi	53.50 dBu
Az 150.0	500.000 W	14.00 mi	56.59 dBu
Az 150.0	500.000 W	14.20 mi	58.86 dBu
Az 150.0	500.000 W	14.40 mi	61.35 dBu
Az 150.0	500.000 W	14.60 mi	62.53 dBu
Az 150.0	500.000 W	14.80 mi	63.76 dBu
Az 150.0	500.000 W	15.00 mi	64.60 dBu
Az 150.0	500.000 W	15.20 mi	65.16 dBu
Az 150.0	500.000 W	15.40 mi	65.67 dBu
Az 150.0	500.000 W	15.60 mi	64.72 dBu
Az 150.0	500.000 W	15.80 mi	64.99 dBu
Az 150.0	500.000 W	16.00 mi	65.82 dBu
Az 150.0	500.000 W	16.20 mi	67.33 dBu
Az 150.0	500.000 W	16.40 mi	58.06 dBu

EXISTING BASE STATION

Az 150.0	500.000 W	16.60 mi	52.63 dBu
Az 150.0	500.000 W	16.80 mi	55.70 dBu
Az 150.0	500.000 W	17.00 mi	57.09 dBu
Az 150.0	500.000 W	17.20 mi	58.60 dBu
Az 150.0	500.000 W	17.40 mi	59.85 dBu
Az 150.0	500.000 W	17.60 mi	60.92 dBu
Az 150.0	500.000 W	17.80 mi	61.86 dBu
Az 150.0	500.000 W	18.00 mi	68.17 dBu
Az 150.0	500.000 W	18.20 mi	71.86 dBu
Az 150.0	500.000 W	18.40 mi	69.67 dBu
Az 150.0	500.000 W	18.60 mi	73.63 dBu
Az 150.0	500.000 W	18.80 mi	74.29 dBu
Az 150.0	500.000 W	19.00 mi	56.24 dBu
Az 150.0	500.000 W	19.20 mi	72.18 dBu
Az 150.0	500.000 W	19.40 mi	40.73 dBu
Az 150.0	500.000 W	19.60 mi	50.54 dBu
Az 150.0	500.000 W	19.80 mi	62.53 dBu
Az 150.0	500.000 W	20.00 mi	70.19 dBu
Az 150.0	500.000 W	20.20 mi	68.41 dBu
Az 150.0	500.000 W	20.40 mi	68.32 dBu
Az 150.0	500.000 W	20.60 mi	68.41 dBu
Az 150.0	500.000 W	20.80 mi	68.53 dBu
Az 150.0	500.000 W	21.00 mi	68.59 dBu
Az 150.0	500.000 W	21.20 mi	68.66 dBu
Az 150.0	500.000 W	21.40 mi	68.73 dBu
Az 150.0	500.000 W	21.60 mi	52.80 dBu
Az 150.0	500.000 W	21.80 mi	48.66 dBu
Az 150.0	500.000 W	22.00 mi	48.74 dBu
Az 150.0	500.000 W	22.20 mi	49.55 dBu
Az 150.0	500.000 W	22.40 mi	52.07 dBu
Az 150.0	500.000 W	22.60 mi	55.10 dBu
Az 150.0	500.000 W	22.80 mi	72.62 dBu
Az 150.0	500.000 W	23.00 mi	72.54 dBu
Az 150.0	500.000 W	23.20 mi	71.35 dBu
Az 150.0	500.000 W	23.40 mi	71.11 dBu
Az 150.0	500.000 W	23.60 mi	70.06 dBu
Az 150.0	500.000 W	23.80 mi	68.58 dBu
Az 150.0	500.000 W	24.00 mi	69.04 dBu
Az 150.0	500.000 W	24.20 mi	64.85 dBu
Az 150.0	500.000 W	24.40 mi	63.69 dBu
Az 150.0	500.000 W	24.60 mi	51.01 dBu
Az 150.0	500.000 W	24.80 mi	61.28 dBu
Az 150.0	500.000 W	25.00 mi	50.62 dBu
Az 150.0	500.000 W	25.20 mi	49.09 dBu
Az 150.0	500.000 W	25.40 mi	60.38 dBu
Az 150.0	500.000 W	25.60 mi	63.61 dBu
Az 150.0	500.000 W	25.80 mi	63.66 dBu
Az 150.0	500.000 W	26.00 mi	61.37 dBu
Az 150.0	500.000 W	26.20 mi	53.48 dBu
Az 150.0	500.000 W	26.40 mi	40.02 dBu
Az 150.0	500.000 W	26.60 mi	34.58 dBu
Az 150.0	500.000 W	26.80 mi	34.02 dBu

EXISTING BASE STATION

Az 150.0	500.000 W	27.00 mi	50.98 dBu
Az 150.0	500.000 W	27.20 mi	51.62 dBu
Az 150.0	500.000 W	27.40 mi	55.46 dBu
Az 150.0	500.000 W	27.60 mi	58.42 dBu
Az 150.0	500.000 W	27.80 mi	55.28 dBu
Az 150.0	500.000 W	28.00 mi	56.29 dBu
Az 150.0	500.000 W	28.20 mi	53.00 dBu
Az 150.0	500.000 W	28.40 mi	51.76 dBu
Az 150.0	500.000 W	28.60 mi	49.45 dBu
Az 150.0	500.000 W	28.80 mi	48.77 dBu
Az 150.0	500.000 W	29.00 mi	48.80 dBu
Az 150.0	500.000 W	29.20 mi	41.94 dBu
Az 150.0	500.000 W	29.40 mi	39.01 dBu
Az 150.0	500.000 W	29.60 mi	38.15 dBu
Az 150.0	500.000 W	29.80 mi	38.92 dBu
Az 150.0	500.000 W	30.00 mi	42.76 dBu

SHORT-SPACED MOBILE
OUTSIDE EXISTING BASE STATION'S
40 dBu CONTOUR

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:45:50.0N
Longitude: 77:07:00.0W
Transmitter center of radiation: 109.0 ft MSL (9 ft AGL)
Frequency: 809.000 MHz
Power: 70.000 W
Non-directional antenna

Receiver antenna: 190.0 ft AGL

330 radial, from .20 mi to 30.00 mi in .20 mi steps.
Path loss based on peak attenuation at inflection points
and 1.333 earth curvature.

Az 330.0	70.000 W	.20 mi	105.22 dBu
Az 330.0	70.000 W	.40 mi	99.20 dBu
Az 330.0	70.000 W	.60 mi	95.67 dBu
Az 330.0	70.000 W	.80 mi	93.18 dBu
Az 330.0	70.000 W	1.00 mi	91.24 dBu
Az 330.0	70.000 W	1.20 mi	89.65 dBu
Az 330.0	70.000 W	1.40 mi	88.32 dBu
Az 330.0	70.000 W	1.60 mi	87.16 dBu
Az 330.0	70.000 W	1.80 mi	86.13 dBu
Az 330.0	70.000 W	2.00 mi	85.22 dBu
Az 330.0	70.000 W	2.20 mi	84.39 dBu
Az 330.0	70.000 W	2.40 mi	83.63 dBu
Az 330.0	70.000 W	2.60 mi	82.94 dBu
Az 330.0	70.000 W	2.80 mi	77.94 dBu
Az 330.0	70.000 W	3.00 mi	73.09 dBu
Az 330.0	70.000 W	3.20 mi	71.97 dBu
Az 330.0	70.000 W	3.40 mi	71.79 dBu
Az 330.0	70.000 W	3.60 mi	70.23 dBu
Az 330.0	70.000 W	3.80 mi	69.02 dBu
Az 330.0	70.000 W	4.00 mi	69.74 dBu
Az 330.0	70.000 W	4.20 mi	72.17 dBu
Az 330.0	70.000 W	4.40 mi	71.39 dBu
Az 330.0	70.000 W	4.60 mi	70.23 dBu
Az 330.0	70.000 W	4.80 mi	69.16 dBu
Az 330.0	70.000 W	5.00 mi	68.84 dBu
Az 330.0	70.000 W	5.20 mi	68.91 dBu
Az 330.0	70.000 W	5.40 mi	68.47 dBu
Az 330.0	70.000 W	5.60 mi	68.30 dBu
Az 330.0	70.000 W	5.80 mi	68.64 dBu
Az 330.0	70.000 W	6.00 mi	67.79 dBu
Az 330.0	70.000 W	6.20 mi	65.58 dBu

SHORT-SPACED MOBILE
OUTSIDE EXISTING BASE STATION'S
40 dBu CONTOUR

Az 330.0	70.000 W	6.40 mi	63.75 dBu
Az 330.0	70.000 W	6.60 mi	62.31 dBu
Az 330.0	70.000 W	6.80 mi	61.73 dBu
Az 330.0	70.000 W	7.00 mi	62.03 dBu
Az 330.0	70.000 W	7.20 mi	62.01 dBu
Az 330.0	70.000 W	7.40 mi	61.84 dBu
Az 330.0	70.000 W	7.60 mi	61.63 dBu
Az 330.0	70.000 W	7.80 mi	61.61 dBu
Az 330.0	70.000 W	8.00 mi	61.23 dBu
Az 330.0	70.000 W	8.20 mi	61.00 dBu
Az 330.0	70.000 W	8.40 mi	61.35 dBu
Az 330.0	70.000 W	8.60 mi	58.97 dBu
Az 330.0	70.000 W	8.80 mi	60.53 dBu
Az 330.0	70.000 W	9.00 mi	60.22 dBu
Az 330.0	70.000 W	9.20 mi	58.08 dBu
Az 330.0	70.000 W	9.40 mi	54.24 dBu
Az 330.0	70.000 W	9.60 mi	55.57 dBu
Az 330.0	70.000 W	9.80 mi	55.61 dBu
Az 330.0	70.000 W	10.00 mi	54.86 dBu
Az 330.0	70.000 W	10.20 mi	56.37 dBu
Az 330.0	70.000 W	10.40 mi	55.81 dBu
Az 330.0	70.000 W	10.60 mi	55.58 dBu
Az 330.0	70.000 W	10.80 mi	54.31 dBu
Az 330.0	70.000 W	11.00 mi	52.99 dBu
Az 330.0	70.000 W	11.20 mi	51.73 dBu
Az 330.0	70.000 W	11.40 mi	50.53 dBu
Az 330.0	70.000 W	11.60 mi	49.78 dBu
Az 330.0	70.000 W	11.80 mi	49.98 dBu
Az 330.0	70.000 W	12.00 mi	50.06 dBu
Az 330.0	70.000 W	12.20 mi	48.53 dBu
Az 330.0	70.000 W	12.40 mi	46.31 dBu
Az 330.0	70.000 W	12.60 mi	43.60 dBu
Az 330.0	70.000 W	12.80 mi	40.43 dBu
Az 330.0	70.000 W	13.00 mi	36.42 dBu
Az 330.0	70.000 W	13.20 mi	20.98 dBu
Az 330.0	70.000 W	13.40 mi	7.02 dBu
Az 330.0	70.000 W	13.60 mi	-11.00 dBu
Az 330.0	70.000 W	13.80 mi	-15.26 dBu
Az 330.0	70.000 W	14.00 mi	-2.63 dBu
Az 330.0	70.000 W	14.20 mi	-22.96 dBu
Az 330.0	70.000 W	14.40 mi	-18.65 dBu
Az 330.0	70.000 W	14.60 mi	-21.18 dBu
Az 330.0	70.000 W	14.80 mi	-32.43 dBu
Az 330.0	70.000 W	15.00 mi	-25.33 dBu
Az 330.0	70.000 W	15.20 mi	-37.70 dBu
Az 330.0	70.000 W	15.40 mi	-31.64 dBu
Az 330.0	70.000 W	15.60 mi	-37.01 dBu
Az 330.0	70.000 W	15.80 mi	-48.57 dBu
Az 330.0	70.000 W	16.00 mi	-56.22 dBu
Az 330.0	70.000 W	16.20 mi	-79.77 dBu

SHORT-SPACED MOBILE
OUTSIDE EXISTING BASE STATION'S
40 dBu CONTOUR

Az	330.0	70.000	W	16.40	mi	-82.65 dBu
Az	330.0	70.000	W	16.60	mi	-85.10 dBu
Az	330.0	70.000	W	16.80	mi	-86.22 dBu
Az	330.0	70.000	W	17.00	mi	-68.52 dBu
Az	330.0	70.000	W	17.20	mi	-69.95 dBu
Az	330.0	70.000	W	17.40	mi	-72.98 dBu
Az	330.0	70.000	W	17.60	mi	-75.08 dBu
Az	330.0	70.000	W	17.80	mi	-77.05 dBu
Az	330.0	70.000	W	18.00	mi	-78.89 dBu
Az	330.0	70.000	W	18.20	mi	-67.70 dBu
Az	330.0	70.000	W	18.40	mi	-65.14 dBu
Az	330.0	70.000	W	18.60	mi	-59.86 dBu
Az	330.0	70.000	W	18.80	mi	-58.30 dBu
Az	330.0	70.000	W	19.00	mi	-56.90 dBu
Az	330.0	70.000	W	19.20	mi	-57.09 dBu
Az	330.0	70.000	W	19.40	mi	-58.81 dBu
Az	330.0	70.000	W	19.60	mi	-60.84 dBu
Az	330.0	70.000	W	19.80	mi	-62.94 dBu
Az	330.0	70.000	W	20.00	mi	-64.96 dBu
Az	330.0	70.000	W	20.20	mi	-66.89 dBu
Az	330.0	70.000	W	20.40	mi	-68.76 dBu
Az	330.0	70.000	W	20.60	mi	-71.23 dBu
Az	330.0	70.000	W	20.80	mi	-78.55 dBu
Az	330.0	70.000	W	21.00	mi	-86.30 dBu
Az	330.0	70.000	W	21.20	mi	-92.59 dBu
Az	330.0	70.000	W	21.40	mi	-101.49 dBu
Az	330.0	70.000	W	21.60	mi	-96.92 dBu
Az	330.0	70.000	W	21.80	mi	-90.89 dBu
Az	330.0	70.000	W	22.00	mi	-94.55 dBu
Az	330.0	70.000	W	22.20	mi	-107.76 dBu
Az	330.0	70.000	W	22.40	mi	-91.44 dBu
Az	330.0	70.000	W	22.60	mi	-84.91 dBu
Az	330.0	70.000	W	22.80	mi	-88.66 dBu
Az	330.0	70.000	W	23.00	mi	-89.60 dBu
Az	330.0	70.000	W	23.20	mi	-89.26 dBu
Az	330.0	70.000	W	23.40	mi	-103.67 dBu
Az	330.0	70.000	W	23.60	mi	-137.50 dBu
Az	330.0	70.000	W	23.80	mi	-140.12 dBu
Az	330.0	70.000	W	24.00	mi	-142.50 dBu
Az	330.0	70.000	W	24.20	mi	-147.77 dBu
Az	330.0	70.000	W	24.40	mi	-150.69 dBu
Az	330.0	70.000	W	24.60	mi	-125.28 dBu
Az	330.0	70.000	W	24.80	mi	-115.25 dBu
Az	330.0	70.000	W	25.00	mi	-115.75 dBu
Az	330.0	70.000	W	25.20	mi	-117.00 dBu
Az	330.0	70.000	W	25.40	mi	-113.80 dBu
Az	330.0	70.000	W	25.60	mi	-112.13 dBu
Az	330.0	70.000	W	25.80	mi	-116.21 dBu
Az	330.0	70.000	W	26.00	mi	-123.78 dBu
Az	330.0	70.000	W	26.20	mi	-125.93 dBu

SHORT-SPACED MOBILE
OUTSIDE EXISTING BASE STATION'S
40 dBu CONTOUR

Az	330.0	70.000 W	26.40	mi	-129.01 dBu
Az	330.0	70.000 W	26.60	mi	-141.35 dBu
Az	330.0	70.000 W	26.80	mi	-141.43 dBu
Az	330.0	70.000 W	27.00	mi	-136.11 dBu
Az	330.0	70.000 W	27.20	mi	-138.43 dBu
Az	330.0	70.000 W	27.40	mi	-140.66 dBu
Az	330.0	70.000 W	27.60	mi	-142.83 dBu
Az	330.0	70.000 W	27.80	mi	-144.94 dBu
Az	330.0	70.000 W	28.00	mi	-146.99 dBu
Az	330.0	70.000 W	28.20	mi	-144.96 dBu
Az	330.0	70.000 W	28.40	mi	-139.68 dBu
Az	330.0	70.000 W	28.60	mi	-134.53 dBu
Az	330.0	70.000 W	28.80	mi	-137.30 dBu
Az	330.0	70.000 W	29.00	mi	-138.95 dBu
Az	330.0	70.000 W	29.20	mi	-141.49 dBu
Az	330.0	70.000 W	29.40	mi	-143.41 dBu
Az	330.0	70.000 W	29.60	mi	-144.86 dBu
Az	330.0	70.000 W	29.80	mi	-147.25 dBu
Az	330.0	70.000 W	30.00	mi	-148.33 dBu

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:46:00.0N
Longitude: 77:07:00.0W
Transmitter center of radiation: 106.0 ft MSL (6 ft AGL)
Frequency: 809.000 MHz
Power: 3.000 W
Non-directional antenna

Receiver antenna: 190.0 ft AGL

330 radial, from .20 mi to 30.00 mi in .20 mi steps.
Path loss based on peak attenuation at inflection points
and 1.333 earth curvature.

Az 330.0	3.000 W	.20 mi	91.54 dBu
Az 330.0	3.000 W	.40 mi	85.52 dBu
Az 330.0	3.000 W	.60 mi	82.00 dBu
Az 330.0	3.000 W	.80 mi	79.50 dBu
Az 330.0	3.000 W	1.00 mi	77.56 dBu
Az 330.0	3.000 W	1.20 mi	75.97 dBu
Az 330.0	3.000 W	1.40 mi	74.64 dBu
Az 330.0	3.000 W	1.60 mi	73.48 dBu
Az 330.0	3.000 W	1.80 mi	72.45 dBu
Az 330.0	3.000 W	2.00 mi	71.54 dBu
Az 330.0	3.000 W	2.20 mi	70.71 dBu
Az 330.0	3.000 W	2.40 mi	67.89 dBu
Az 330.0	3.000 W	2.60 mi	61.51 dBu
Az 330.0	3.000 W	2.80 mi	55.47 dBu
Az 330.0	3.000 W	3.00 mi	54.46 dBu
Az 330.0	3.000 W	3.20 mi	54.11 dBu
Az 330.0	3.000 W	3.40 mi	53.25 dBu

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

Az 330.0	3.000 W	6.40 mi	44.57 dBu
Az 330.0	3.000 W	6.60 mi	44.01 dBu
Az 330.0	3.000 W	6.80 mi	44.49 dBu
Az 330.0	3.000 W	7.00 mi	44.38 dBu
Az 330.0	3.000 W	7.20 mi	44.20 dBu
Az 330.0	3.000 W	7.40 mi	44.16 dBu
Az 330.0	3.000 W	7.60 mi	44.16 dBu
Az 330.0	3.000 W	7.80 mi	43.39 dBu
Az 330.0	3.000 W	8.00 mi	43.06 dBu
Az 330.0	3.000 W	8.20 mi	43.96 dBu
Az 330.0	3.000 W	8.40 mi	41.06 dBu
Az 330.0	3.000 W	8.60 mi	41.04 dBu
Az 330.0	3.000 W	8.80 mi	42.45 dBu
Az 330.0	3.000 W	9.00 mi	41.10 dBu
Az 330.0	3.000 W	9.20 mi	38.24 dBu
Az 330.0	3.000 W	9.40 mi	37.75 dBu
Az 330.0	3.000 W	9.60 mi	38.75 dBu
Az 330.0	3.000 W	9.80 mi	36.06 dBu
Az 330.0	3.000 W	10.00 mi	39.12 dBu
Az 330.0	3.000 W	10.20 mi	38.11 dBu
Az 330.0	3.000 W	10.40 mi	36.69 dBu
Az 330.0	3.000 W	10.60 mi	35.27 dBu
Az 330.0	3.000 W	10.80 mi	33.92 dBu

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

Az 330.0	3.000 W	16.40 mi	-154.94	dBu
Az 330.0	3.000 W	16.60 mi	-149.09	dBu
Az 330.0	3.000 W	16.80 mi	-136.41	dBu
Az 330.0	3.000 W	17.00 mi	-128.11	dBu
Az 330.0	3.000 W	17.20 mi	-140.70	dBu
Az 330.0	3.000 W	17.40 mi	-143.13	dBu
Az 330.0	3.000 W	17.60 mi	-143.82	dBu
Az 330.0	3.000 W	17.80 mi	-135.44	dBu
Az 330.0	3.000 W	18.00 mi	-133.06	dBu
Az 330.0	3.000 W	18.20 mi	-130.99	dBu
Az 330.0	3.000 W	18.40 mi	-129.21	dBu
Az 330.0	3.000 W	18.60 mi	-126.14	dBu
Az 330.0	3.000 W	18.80 mi	-123.96	dBu
Az 330.0	3.000 W	19.00 mi	-120.96	dBu
Az 330.0	3.000 W	19.20 mi	-123.12	dBu
Az 330.0	3.000 W	19.40 mi	-125.20	dBu
Az 330.0	3.000 W	19.60 mi	-127.69	dBu
Az 330.0	3.000 W	19.80 mi	-130.12	dBu
Az 330.0	3.000 W	20.00 mi	-132.46	dBu
Az 330.0	3.000 W	20.20 mi	-134.71	dBu
Az 330.0	3.000 W	20.40 mi	-136.87	dBu
Az 330.0	3.000 W	20.60 mi	-141.06	dBu
Az 330.0	3.000 W	20.80 mi	-152.88	dBu
Az 330.0	3.000 W	21.00 mi	-158.26	dBu
Az 330.0	3.000 W	21.20 mi	-165.53	dBu
Az 330.0	3.000 W	21.40 mi	-177.64	dBu
Az 330.0	3.000 W	21.60 mi	-163.62	dBu
Az 330.0	3.000 W	21.80 mi	-181.22	dBu
Az 330.0	3.000 W	22.00 mi	-181.04	dBu
Az 330.0	3.000 W	22.20 mi	-161.90	dBu
Az 330.0	3.000 W	22.40 mi	-154.82	dBu
Az 330.0	3.000 W	22.60 mi	-161.28	dBu
Az 330.0	3.000 W	22.80 mi	-172.61	dBu
Az 330.0	3.000 W	23.00 mi	-163.99	dBu
Az 330.0	3.000 W	23.20 mi	-178.13	dBu
Az 330.0	3.000 W	23.40 mi	-213.58	dBu
Az 330.0	3.000 W	23.60 mi	-215.97	dBu
Az 330.0	3.000 W	23.80 mi	-218.54	dBu
Az 330.0	3.000 W	24.00 mi	-221.46	dBu
Az 330.0	3.000 W	24.20 mi	-224.77	dBu

EXISTING PORTABLE INSIDE
EXISTING BASE STATION'S
40 dBu CONTOUR.

Az 330.0	3.000 W	26.40 mi	-219.49	dBu
Az 330.0	3.000 W	26.60 mi	-222.31	dBu
Az 330.0	3.000 W	26.80 mi	-211.57	dBu
Az 330.0	3.000 W	27.00 mi	-212.16	dBu
Az 330.0	3.000 W	27.20 mi	-214.57	dBu
Az 330.0	3.000 W	27.40 mi	-216.90	dBu
Az 330.0	3.000 W	27.60 mi	-219.17	dBu
Az 330.0	3.000 W	27.80 mi	-221.37	dBu
Az 330.0	3.000 W	28.00 mi	-220.27	dBu
Az 330.0	3.000 W	28.20 mi	-210.75	dBu
Az 330.0	3.000 W	28.40 mi	-208.57	dBu
Az 330.0	3.000 W	28.60 mi	-210.93	dBu
Az 330.0	3.000 W	28.80 mi	-213.16	dBu
Az 330.0	3.000 W	29.00 mi	-215.34	dBu
Az 330.0	3.000 W	29.20 mi	-217.47	dBu
Az 330.0	3.000 W	29.40 mi	-219.56	dBu

APPENDIX C

INTERPOLATED DISTANCE TO CONTOURS - BULLINGTON OBSTRUCTION METHOD
COMPUTED FIELD VALUES - BULLINGTON OBSTRUCTION METHOD

Transmitter Latitude: 38:55:13.0N
Longitude: 77:13:48.0W
Transmitter center of radiation: 700.0 ft MSL (190 ft AGL)
Frequency: 854.000 MHz
Power: 500.000 W
Non-directional antenna

Receiver antenna: 9.0 ft AGL

72 radials, from .20 mi to 30.00 mi in .20 mi steps until 18 dBu Contour.
Path loss based on peak attenuation at inflection points and 1.333 earth curvature.

Az	.0	500.000 W	.20 mi	113.76	dBu
Az	.0	500.000 W	.40 mi	107.74	dBu
Az	.0	500.000 W	.60 mi	104.21	dBu
Az	.0	500.000 W	.80 mi	99.19	dBu
Az	.0	500.000 W	1.00 mi	99.78	dBu
Az	.0	500.000 W	1.20 mi	98.19	dBu
Az	.0	500.000 W	1.40 mi	96.85	dBu
Az	.0	500.000 W	1.60 mi	95.69	dBu
Az	.0	500.000 W	1.80 mi	94.67	dBu
Az	.0	500.000 W	2.00 mi	93.76	dBu
Az	.0	500.000 W	2.20 mi	85.92	dBu
Az	.0	500.000 W	2.40 mi	92.17	dBu
Az	.0	500.000 W	2.60 mi	91.48	dBu
Az	.0	500.000 W	2.80 mi	90.83	dBu
Az	.0	500.000 W	3.00 mi	90.23	dBu
Az	.0	500.000 W	3.20 mi	89.67	dBu
Az	.0	500.000 W	3.40 mi	84.21	dBu
Az	.0	500.000 W	3.60 mi	73.79	dBu
Az	.0	500.000 W	3.80 mi	88.18	dBu
Az	.0	500.000 W	4.00 mi	39.86	dBu
Az	.0	500.000 W	4.20 mi	52.64	dBu
Az	.0	500.000 W	4.40 mi	70.88	dBu
Az	.0	500.000 W	4.60 mi	86.52	dBu
Az	.0	500.000 W	4.80 mi	86.15	dBu
Az	.0	500.000 W	5.00 mi	85.80	dBu
Az	.0	500.000 W	5.20 mi	85.46	dBu
Az	.0	500.000 W	5.40 mi	85.13	dBu
Az	.0	500.000 W	5.60 mi	81.00	dBu
Az	.0	500.000 W	5.80 mi	84.51	dBu
Az	.0	500.000 W	6.00 mi	84.21	dBu

EXISTING BASE STATION

Az	.0	500.000 W	6.20 mi	83.63	dBu
Az	.0	500.000 W	6.40 mi	82.14	dBu
Az	.0	500.000 W	6.60 mi	83.06	dBu
Az	.0	500.000 W	6.80 mi	83.13	dBu
Az	.0	500.000 W	7.00 mi	69.42	dBu
Az	.0	500.000 W	7.20 mi	65.13	dBu
Az	.0	500.000 W	7.40 mi	82.39	dBu
Az	.0	500.000 W	7.60 mi	82.16	dBu
Az	.0	500.000 W	7.80 mi	70.50	dBu
Az	.0	500.000 W	8.00 mi	60.63	dBu
Az	.0	500.000 W	8.20 mi	56.11	dBu
Az	.0	500.000 W	8.40 mi	59.81	dBu
Az	.0	500.000 W	8.60 mi	62.72	dBu
Az	.0	500.000 W	8.80 mi	65.76	dBu
Az	.0	500.000 W	9.00 mi	76.55	dBu
Az	.0	500.000 W	9.20 mi	80.37	dBu
Az	.0	500.000 W	9.40 mi	80.31	dBu
Az	.0	500.000 W	9.60 mi	79.42	dBu
Az	.0	500.000 W	9.80 mi	79.95	dBu
Az	.0	500.000 W	10.00 mi	79.78	dBu
Az	.0	500.000 W	10.20 mi	78.11	dBu
Az	.0	500.000 W	10.40 mi	70.31	dBu
Az	.0	500.000 W	10.60 mi	73.56	dBu
Az	.0	500.000 W	10.80 mi	78.39	dBu
Az	.0	500.000 W	11.00 mi	78.95	dBu
Az	.0	500.000 W	11.20 mi	78.79	dBu
Az	.0	500.000 W	11.40 mi	75.69	dBu
Az	.0	500.000 W	11.60 mi	59.89	dBu
Az	.0	500.000 W	11.80 mi	54.44	dBu
Az	.0	500.000 W	12.00 mi	63.35	dBu
Az	.0	500.000 W	12.20 mi	69.78	dBu
Az	.0	500.000 W	12.40 mi	66.52	dBu
Az	.0	500.000 W	12.60 mi	45.81	dBu
Az	.0	500.000 W	12.80 mi	46.79	dBu
Az	.0	500.000 W	13.00 mi	50.54	dBu
Az	.0	500.000 W	13.20 mi	49.98	dBu
Az	.0	500.000 W	13.40 mi	58.37	dBu
Az	.0	500.000 W	13.60 mi	63.70	dBu
Az	.0	500.000 W	13.80 mi	66.73	dBu
Az	.0	500.000 W	14.00 mi	59.55	dBu
Az	.0	500.000 W	14.20 mi	70.16	dBu
Az	.0	500.000 W	14.40 mi	70.03	dBu
Az	.0	500.000 W	14.60 mi	66.86	dBu
Az	.0	500.000 W	14.80 mi	68.36	dBu
Az	.0	500.000 W	15.00 mi	66.09	dBu
Az	.0	500.000 W	15.20 mi	65.45	dBu
Az	.0	500.000 W	15.40 mi	65.29	dBu
Az	.0	500.000 W	15.60 mi	65.27	dBu
Az	.0	500.000 W	15.80 mi	63.44	dBu
Az	.0	500.000 W	16.00 mi	63.50	dBu
Az	.0	500.000 W	16.20 mi	61.35	dBu