

Amendment to Application for Construction Permit

The following engineering statement and attached exhibits have been prepared for Millcreek Broadcasting, L.L.C., licensee of FM broadcast station KUDD at Roy, Utah, and are in support of their amendment to application for construction permit.

This amendment is being prepared at the request of the Commission's Staff. In the original application, Millcreek indicated that the main studio location for the facility is located outside the predicted 70 dBu service contour by the Commission's standard method, although it was located in an area that received a signal level of greater than 70 dBu when studied by the Longley-Rice propagation model. Although Millcreek demonstrated this fact in their original application, the Commission's Staff requested a more detailed study concerning these results. This amendment seeks to provide the information requested by the Commission's Staff.

Contained within this study are several coverage maps depicting the predicted Longley-Rice coverage for the proposed facility. These maps are in three different formats at two different scales each. The three formats specifically are a depicting of the Longley-Rice coverage using a composite grid, a depiction of the Longley-Rice coverage using a composite contour method, and the predicted Longley-Rice composite grid coverage with the predicted FCC

service contours overlaid. The composite grid format is the type of map that was submitted with the original application.

It is believed that the use of an alternate propagation model is justified in this case. The Commission's F (50,50) propagation curves assume an average terrain with a terrain roughness factor (Δh) of 50 meters. The main studio is located 81.3 kilometers at an azimuth of 139.4 degrees true from the transmitter. The terrain roughness factor along the 139, 139.5, and 140-degree true radials is 152 meters, 160 meters, and 152 meters respectively. Since the terrain roughness along these paths varies considerably from the value utilized for the creation of the standard curves, it is believed that the Longley-Rice model would provide a more accurate depiction of the actual coverage area of the proposed facility.

A tabulation of the predicted field strengths along pertinent azimuths using the Longley-Rice propagation model has been created, and is contained in this amendment. This tabulation indicates in a numerical format the same information that is depicted on the coverage maps contained in this amendment. As the tabulation indicates, the Longley-Rice predicted field strength at 81.0 kilometers from the transmitter site along the 139.36-degree true radial is 87.40 dBu. At 81.5 kilometers from the transmitter site along the same radial, the predicted field strength is 87.31 dBu. These values are clearly in excess of the

required 70 dBu value indicating that the main studio, although outside the predicted 70 dBu service contour by the Commission's standard method, still receives a signal level in excess of 70 dBu.

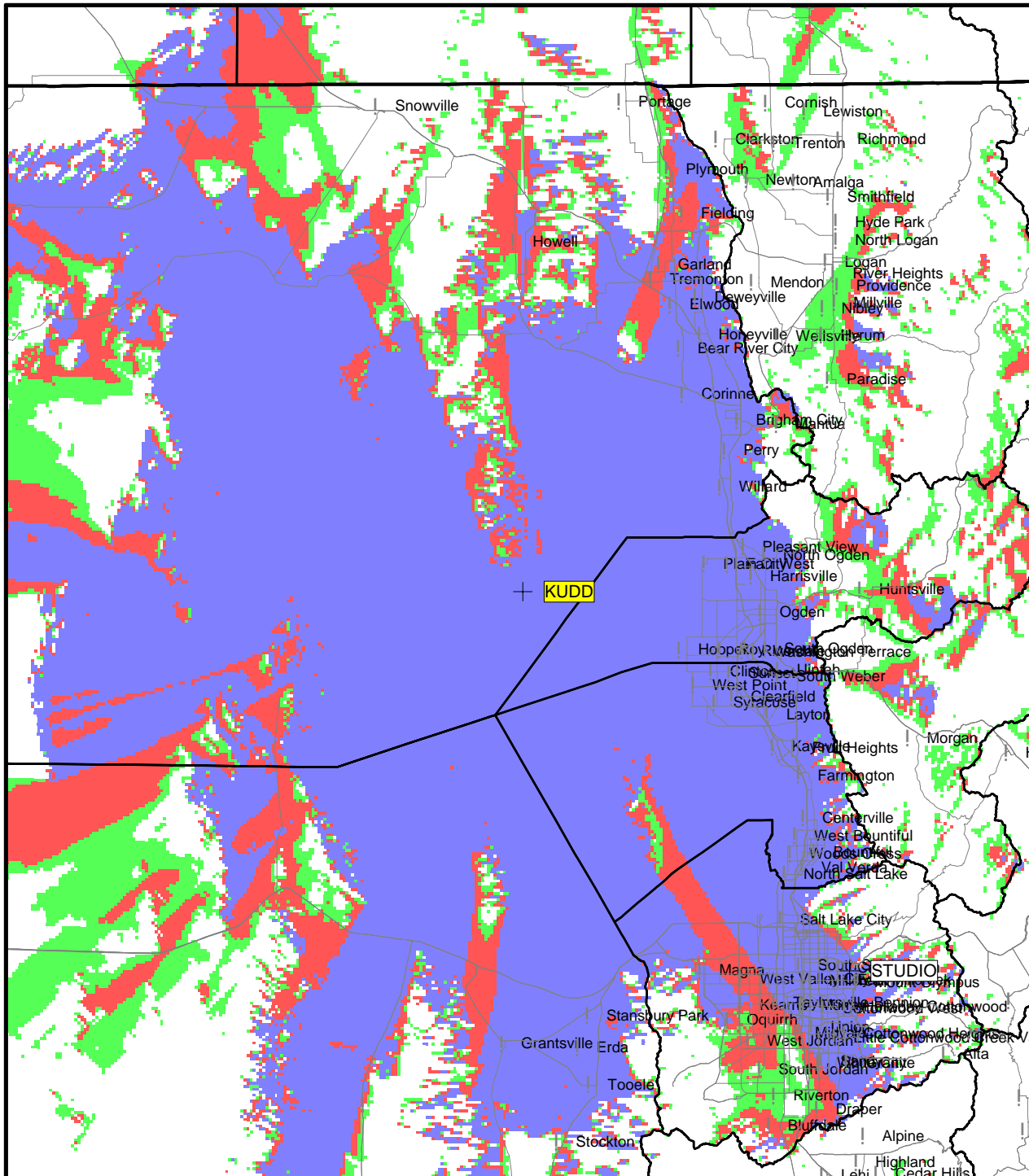
To further illustrate the results of the Longley-Rice coverage model as it pertains to the proposed KUDD facility, four profile graphs have been created and attached to this amendment. These profile graphs illustrate both the predicted Longley-Rice field strength along a certain bearing as well as a profile of the terrain elevations along that path. As these graphs indicate, particularly the graph depicting the 139.36-degree true radial, the field strength at 80-82 kilometers from the transmitter site is in excess of 70 dBu. Therefore, it is further indicated that the main studio for the proposed facility would receive the requisite signal level and would be in compliance with Section 73.1125 of the Commission's Rules.

In determining the predicted Longley-Rice field strength of the proposed facility, no clutter factor was employed. Although the use of a 5 dB clutter factor may be appropriate to account for the effects of trees, buildings, etc., the use of such a factor would still result in a predicted field strength at the main studio in excess of 80 dBu. It is therefore our conclusion that the main studio would be in compliance with Section 73.1125 of the Commission's Rules, as it would receive

a predicted field strength by the Longley-Rice propagation model in excess of 70 dBu.

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.

/s/ Jeremy D. Ruck
Consulting Engineer
D.L. Markley & Associates, Inc.
June 13, 2001



SIGNAL™: KUDD 301 AMD E-1 06112001.map

Prop. model: Longley-Rice v1.2.2
Time: 50.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Groundcover: None
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.1 m AGL Gain: 0.00 dBd
Field strength at remote

> 70.0 dBuV/m
60.0 to 70.0 dBuV/m
54.0 to 60.0 dBuV/m
< 54.0 dBuV/m

Min. receiver threshold level: -200.0 dBmW

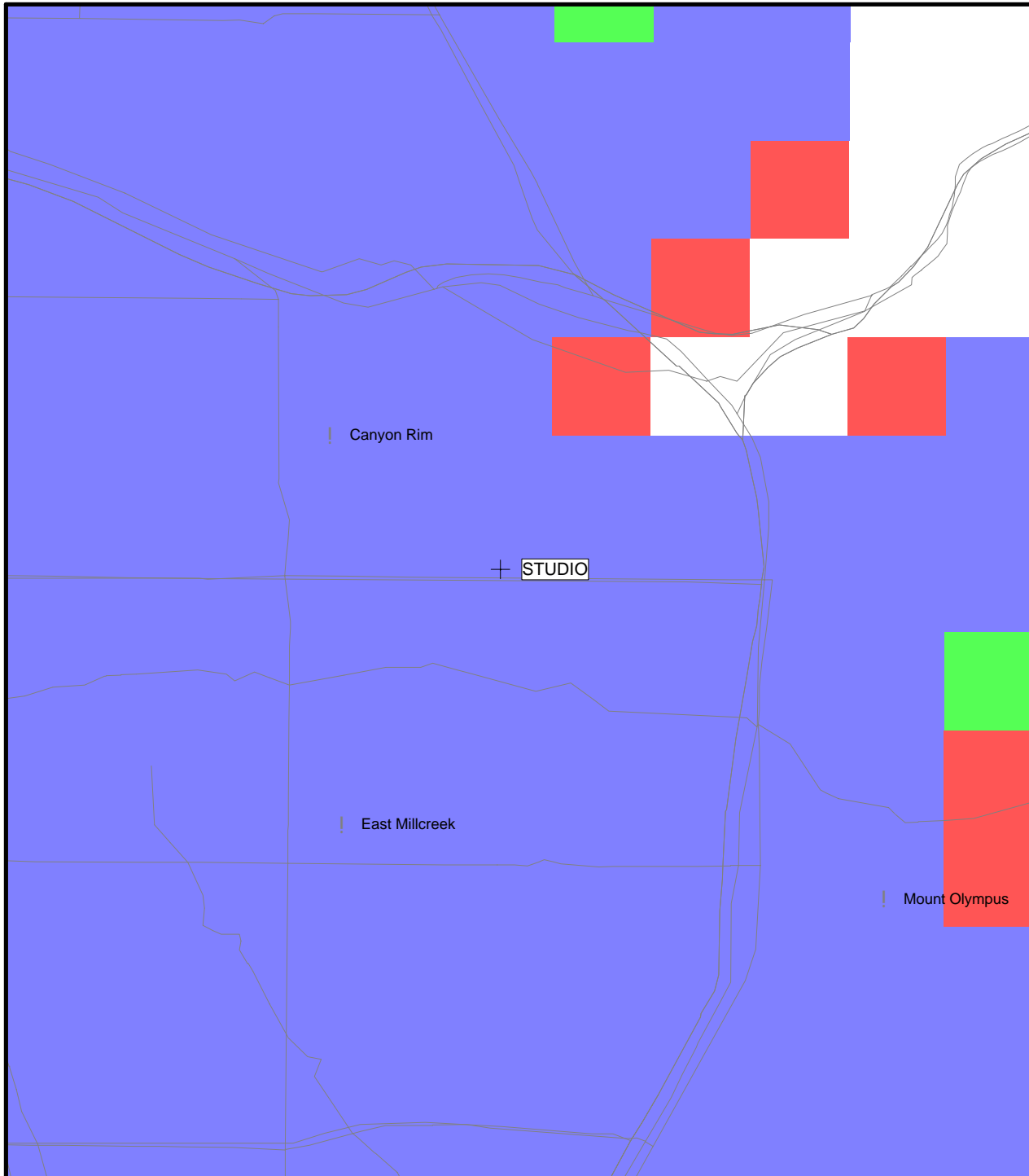
Site	Ant. Elev. AMSL (m)	ERPd (dBW)	Ant. Type/Orient.	Coordinates
KUDD group: 1	2041.0	48.51	Omni-H	N41°15'27.00" W112°26'24.00"

Notes
Location of Studio indicated by crosshair and white flag.

KILOMETERS
-25 0 25

Predicted Longley-Rice Coverage
KUDD-Roy, Utah

Exhibit E-1 June, 2001



SIGNAL™: KUDD 301 AMD E-2 06112001.map

Prop. model: Longley-Rice v1.2.2
Time: 50.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Groundcover: None
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.1 m AGL Gain: 0.00 dBd
Field strength at remote

	>	70.0 dBuV/m
		60.0 to 70.0 dBuV/m
		54.0 to 60.0 dBuV/m
	<	54.0 dBuV/m

Min. receiver threshold level: -200.0 dBmW

Site	Ant. Elev. AMSL (m)	ERPd (dBW)	Ant. Type /Orient.	Coordinates
KUDD	2041.0	48.51	Omni-H	N41°15'27.00"
group: 1	107.9000	MHz		W112°26'24.00"

Notes

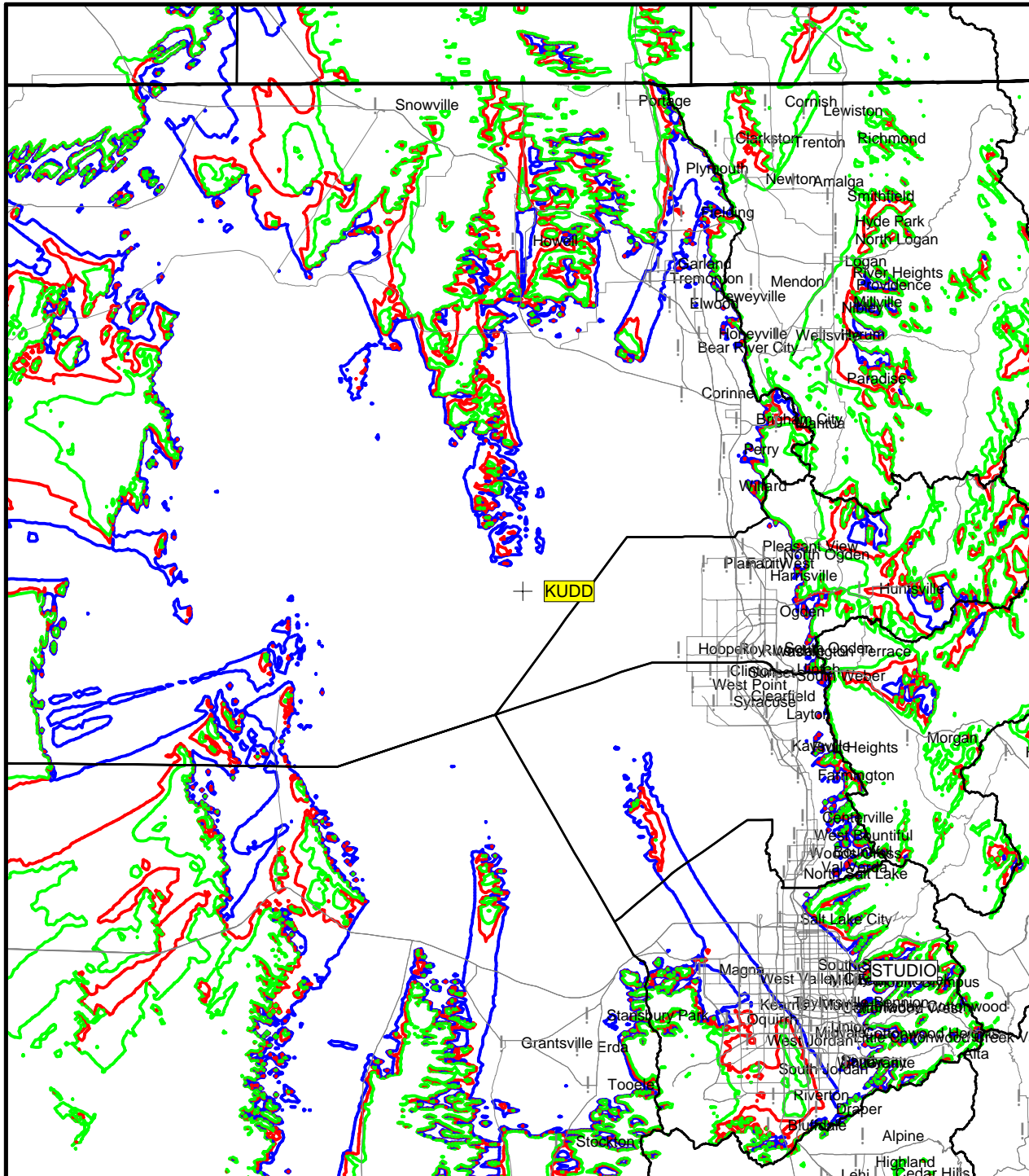
Location of Studio indicated by crosshair and white flag. Only Longley-Rice Coverage is indicated on this map.

METERS

-500 0 1000

Predicted Longley-Rice Coverage
KUDD-Roy, Utah

Exhibit E-2 June, 2001



SIGNAL™: KUDD 301 AMD E-3 06112001.map

Prop. model: Longley-Rice v1.2.2
Time: 50.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Groundcover: None
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.1 m AGL Gain: 0.00 dBd
Field strength at remote

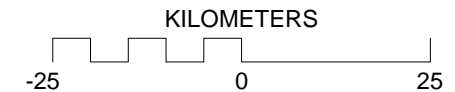
70.0 dBuV/m
60.0 dBuV/m
54.0 dBuV/m

Min. receiver threshold level: -200.0 dBmW

Site	Ant. Elev. AMSL (m)	ERPd (dBW)	Ant. Type/Orient.	Coordinates
KUDD	2041.0	48.51	Omni-H	N41°15'27.00"
group: 1	107.9000	MHz		W112°26'24.00"

Notes

Location of Studio indicated by crosshair and white flag. Map depicts the Longley-Rice determined composite coverage contours.

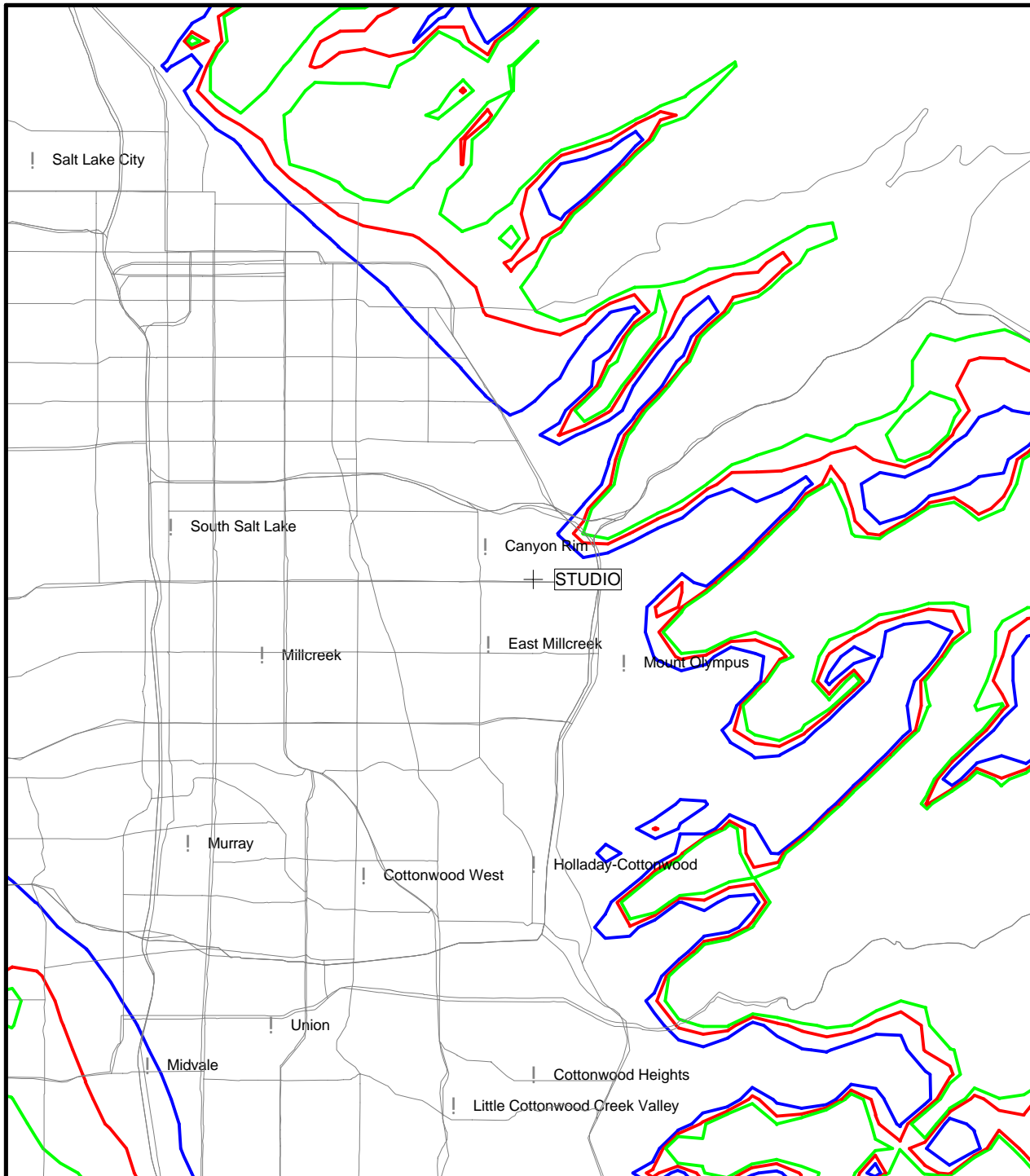


Predicted Longley-Rice Coverage

KUDD-Roy, Utah

Exhibit E-3

June, 2001



SIGNAL™: KUDD 301 AMD E-4 06112001.map

Prop. model: Longley-Rice v1.2.2
Time: 50.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Groundcover: None
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.1 m AGL Gain: 0.00 dBd
Field strength at remote

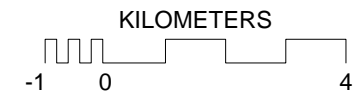
■ = 70.0 dBuV/m
■ = 60.0 dBuV/m
■ = 54.0 dBuV/m

Min. receiver threshold level: -200.0 dBmW

Site	Ant. Elev. AMSL (m)	ERPd (m) (dBW)/Orient.	Ant. Type	Coordinates
KUDD	2041.0	48.51	Omni-H	N41°15'27.00"
group: 1	107.9000	MHz		W112°26'24.00"

Notes

Location of Studio indicated by crosshair and white flag. Map depicts the Longley-Rice determined composite coverage contours.

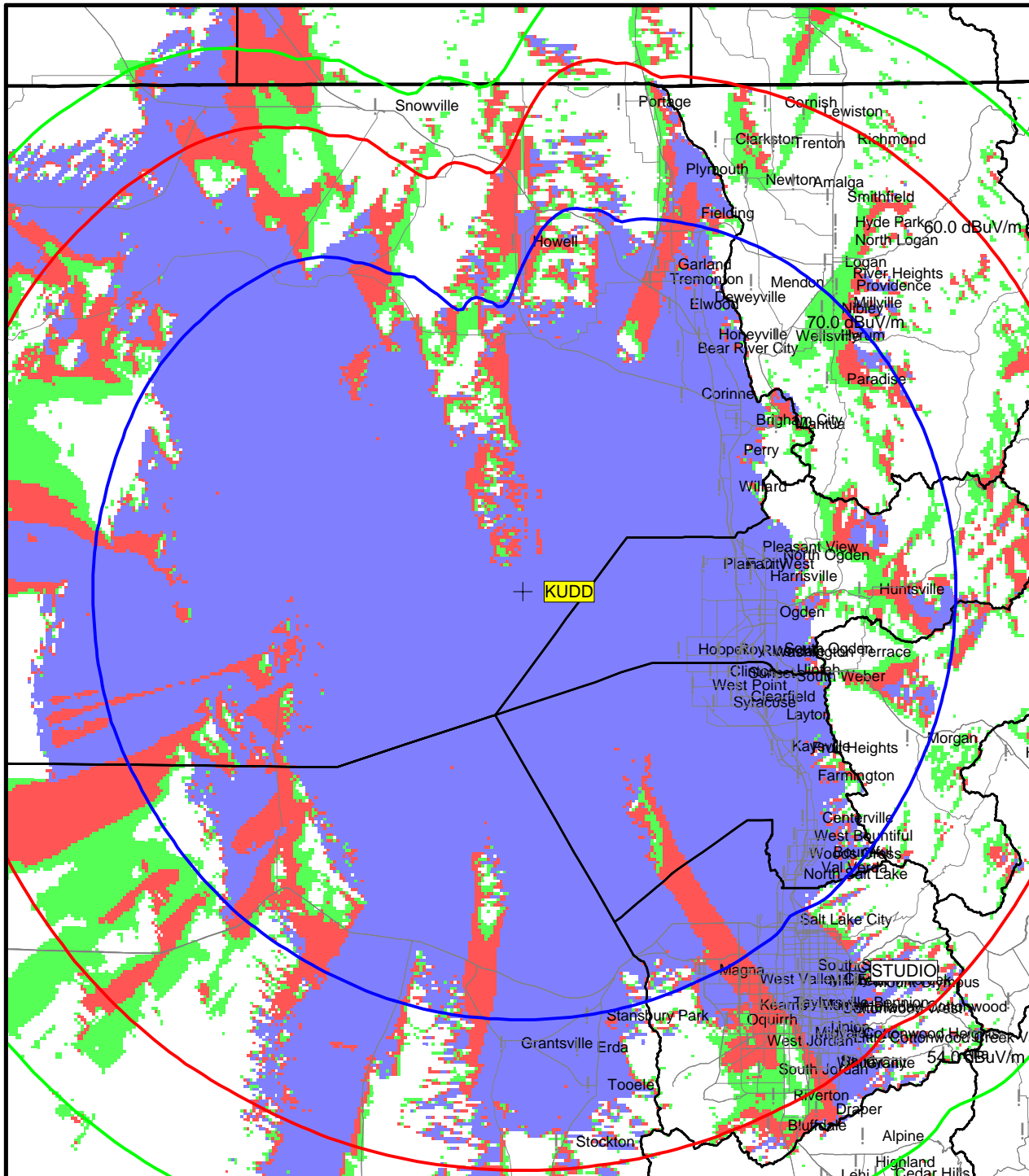


Predicted Longley-Rice Coverage

KUDD-Roy, Utah

Exhibit E-4

June, 2001



SIGNAL™: KUDD 301 AMD E-5 06112001.map

Prop. model: Longley-Rice v1.2.2
Time: 50.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Groundcover: None
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.1 m AGL Gain: 0.00 dBd
Field strength at remote

>	70.0 dBuV/m
60.0 to	70.0 dBuV/m
54.0 to	60.0 dBuV/m
<	54.0 dBuV/m

Min. receiver threshold level: -200.0 dBmW

Site	Ant. Elev. AMSL (m)	ERPd (dBW)	Ant. Type/Orient.	Coordinates
KUDD group: 1	2041.0	48.51	Omni-H	N41°15'27.00" W112°26'24.00"

Notes

Location of Studio indicated by crosshair and white flag. Predicted Longley-Rice coverage is indicated with predicted FCC Service Contours overlaid.

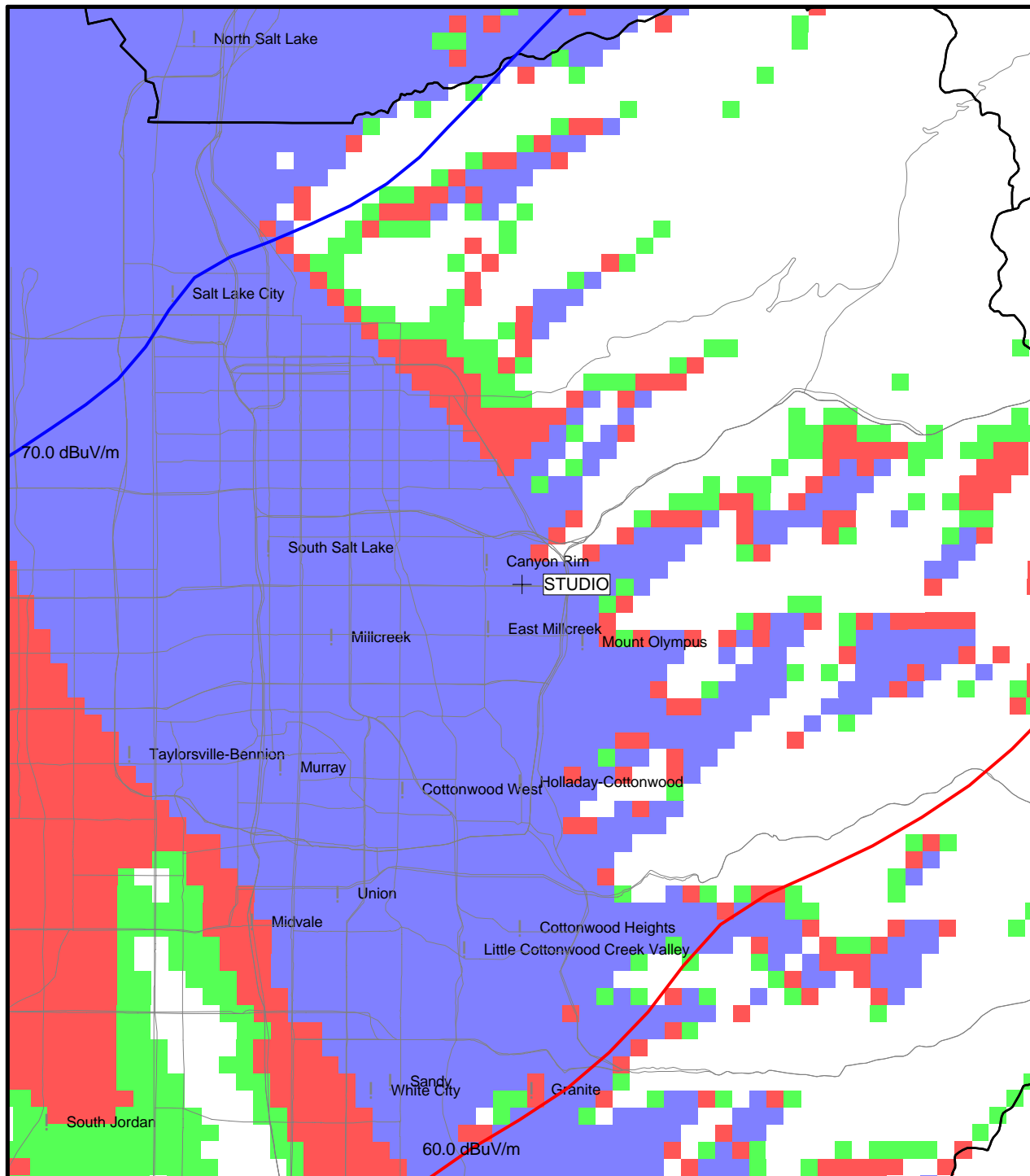
KILOMETERS

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Predicted Longley-Rice Coverage

KUDD-Roy, Utah

Exhibit E-5 June, 2001



SIGNAL™: KUDD 301 AMD E-6 06112001.map

Prop. model: Longley-Rice v1.2.2
Time: 50.0% Loc.: 50.0%
Prediction Confidence Margin: 0.0dB
Climate: Continental Temperate
Groundcover: None
Atmospheric Abs.: none
K Factor: 1.333
RX Antenna - Type: OMNI
Height: 9.1 m AGL Gain: 0.00 dBd
Field strength at remote

> 70.0 dBuV/m
60.0 to 70.0 dBuV/m
54.0 to 60.0 dBuV/m
< 54.0 dBuV/m

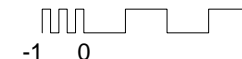
Min. receiver threshold level: -200.0 dBmW

Site	Ant. Elev. AMSL (m)	ERPd (dBW)	Ant. Type /Orient.	Coordinates
KUDD group: 1	2041.0	48.51	Omni-H	N41°15'27.00" W112°26'24.00"

Notes

Location of Studio indicated by crosshair
and white flag. Predicted Longley-Rice
coverage is indicated with predicted
FCC Service Contours overlaid.

KILOMETERS



Predicted Longley-Rice Coverage

KUDD-Roy, Utah

Exhibit E-6

June, 2001

KUDD Longley-Rice Predicted Field Strengths Along Pertinent Azimuths (dBμ)

km	Azimuth-Degrees True											
dist.	137	137.5	138	138.5	139	139.36	139.5	140	140.5	141	141.5	142
0.0	132.75	132.75	132.75	132.75	132.75	132.75	132.75	132.75	132.75	132.75	132.75	132.75
0.5	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15
1.0	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15	127.15
1.5	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07
2.0	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07	121.07
2.5	105.81	105.81	105.81	105.81	105.81	105.81	105.81	105.81	105.81	105.81	105.81	105.81
3.0	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01
3.5	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01	115.01
4.0	113.14	113.14	113.14	113.14	113.14	113.14	113.14	113.14	113.14	115.01	115.01	115.01
4.5	113.14	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44
5.0	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44
5.5	110.16	110.16	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44	111.44
6.0	110.16	110.16	110.16	110.16	110.16	108.91	108.91	108.91	108.91	108.91	108.91	109.84
6.5	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91
7.0	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91	108.91
7.5	107.93	107.93	107.93	107.93	107.93	107.93	107.93	108.91	107.71	107.71	107.71	107.71
8.0	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95
8.5	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95
9.0	106.16	106.16	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.95	106.00	106.00
9.5	106.16	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	106.00	106.00	106.00
10.0	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36
10.5	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	105.36	104.57
11.0	104.69	104.69	104.69	104.01	104.01	104.57	104.57	104.57	104.57	104.57	104.57	104.57
11.5	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.57	104.57
12.0	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01	104.01
12.5	103.44	103.44	104.01	104.01	104.01	103.33	103.33	103.33	103.33	103.33	103.33	103.33
13.0	81.44	81.44	81.44	81.44	81.44	81.44	81.44	103.33	103.33	103.33	103.33	103.33
13.5	81.44	81.44	81.44	81.44	81.44	81.44	81.44	81.44	81.44	81.44	81.44	103.33
14.0	102.34	81.44	81.44	81.44	81.44	81.44	81.44	102.25	102.25	102.25	102.25	102.25
14.5	102.34	102.34	86.32	86.32	102.25	102.25	102.25	102.25	102.25	102.25	102.25	102.25
15.0	86.32	86.32	86.32	86.32	86.32	86.32	86.32	86.32	86.32	102.25	102.25	102.25
15.5	86.32	86.32	86.32	86.32	86.32	86.32	86.32	86.32	86.87	86.87	86.87	86.87
16.0	101.37	101.37	101.37	86.87	86.87	86.87	86.87	86.87	86.87	86.87	86.87	86.87
16.5	98.22	98.22	98.22	98.22	98.22	98.22	98.22	86.87	86.87	86.87	86.87	86.87
17.0	98.22	98.22	98.22	98.22	98.22	98.22	98.22	98.22	98.22	100.78	100.78	100.78
17.5	100.49	98.22	98.22	98.22	93.42	93.42	93.42	93.42	93.42	93.42	93.42	93.42
18.0	100.06	100.06	100.06	100.06	93.42	93.42	93.42	93.42	93.42	93.42	93.42	93.42
18.5	100.06	100.06	100.06	100.06	100.06	100.06	100.06	100.06	93.42	93.42	99.96	99.96
19.0	100.06	100.06	100.06	100.06	100.06	97.02	97.02	97.02	97.02	97.02	99.96	99.96
19.5	99.70	99.70	99.30	97.02	97.02	97.02	97.02	97.02	97.02	97.02	97.02	97.02
20.0	99.30	99.30	99.30	99.30	99.30	97.02	97.02	97.02	97.02	97.02	99.22	99.22
20.5	99.30	99.30	99.30	99.30	99.30	99.30	99.30	96.04	99.22	99.22	99.22	99.22
21.0	98.97	99.30	99.30	96.04	96.04	96.04	96.04	96.04	96.04	96.04	96.04	99.22
21.5	98.61	98.61	98.61	98.61	96.04	96.04	96.04	96.04	96.04	96.04	96.04	98.53
22.0	98.61	98.61	98.61	98.61	98.61	98.61	98.61	96.04	98.53	98.53	98.53	98.53

KUDD Longley-Rice Predicted Field Strengths Along Pertinent Azimuths (dBμ)

km	Azimuth-Degrees True											
dist.	137	137.5	138	138.5	139	139.36	139.5	140	140.5	141	141.5	142
22.5	98.61	98.61	98.61	98.61	98.25	98.25	98.25	98.25	98.25	98.53	98.53	98.53
23.0	98.30	97.96	97.96	98.25	98.25	98.25	98.25	98.25	98.25	98.25	98.25	98.15
23.5	97.96	97.96	97.96	97.96	97.96	98.25	98.25	98.25	97.89	97.89	97.89	97.89
24.0	97.96	97.96	97.96	97.96	97.63	97.63	97.63	97.63	97.89	97.89	97.89	97.89
24.5	97.67	97.67	97.63	97.63	97.63	97.63	97.63	97.63	97.63	97.63	97.89	97.89
25.0	97.36	97.36	97.36	97.36	97.63	97.63	97.63	97.63	97.63	97.30	97.30	97.30
25.5	97.36	97.36	97.36	97.36	97.36	97.05	97.05	97.30	97.30	97.30	97.30	97.30
26.0	97.09	97.36	97.05	97.05	97.05	97.05	97.05	97.05	97.30	97.30	97.30	97.30
26.5	96.80	96.80	96.80	97.05	97.05	97.05	97.05	97.05	97.05	96.75	96.98	96.98
27.0	96.80	96.80	96.80	96.80	97.05	97.05	97.05	96.75	96.75	96.75	96.75	96.75
27.5	96.80	96.80	96.80	96.51	96.51	96.51	96.51	96.75	96.75	96.75	96.75	96.75
28.0	96.55	96.27	96.51	96.51	96.51	96.51	96.51	96.51	96.51	96.75	85.94	85.94
28.5	96.27	96.27	96.27	96.51	96.51	96.51	96.51	96.22	96.22	96.22	96.22	85.94
29.0	96.27	96.27	96.27	96.27	96.00	96.22	96.22	96.22	96.22	96.22	96.22	96.22
29.5	96.04	96.27	96.00	96.00	96.00	96.00	96.00	96.00	96.22	96.22	95.94	95.94
30.0	95.78	95.78	95.78	96.00	96.00	96.00	96.00	96.00	95.73	95.94	95.94	95.94
30.5	95.78	95.78	95.78	95.78	95.73	95.73	95.73	95.73	95.73	95.73	95.73	95.94
31.0	95.78	95.78	95.52	95.52	95.52	95.52	95.52	95.73	95.73	95.73	81.37	81.37
31.5	95.31	95.31	95.52	95.52	95.52	95.52	95.52	95.52	81.37	81.37	81.37	81.37
32.0	95.31	95.31	95.31	95.52	95.52	95.27	95.27	95.27	95.27	95.27	81.37	81.37
32.5	95.31	95.31	95.31	95.07	95.07	95.27	95.27	95.27	95.27	95.27	95.27	95.19
33.0	95.10	95.07	95.07	95.07	95.07	95.07	95.07	95.27	95.27	95.01	95.01	95.01
33.5	94.87	94.87	94.87	95.07	95.07	95.07	95.07	94.70	94.70	95.01	95.01	95.01
34.0	94.87	94.87	94.87	94.87	94.70	94.70	94.70	94.70	94.70	94.70	95.01	70.05
34.5	94.87	94.87	94.63	94.63	94.63	94.63	94.70	94.70	94.70	81.35	81.35	70.05
35.0	94.44	94.44	94.63	94.63	94.63	94.63	94.63	94.10	81.35	81.35	81.35	81.35
35.5	94.44	94.44	94.44	94.63	94.10	94.10	94.10	94.10	94.10	81.35	81.35	75.74
36.0	94.44	94.44	94.22	94.22	94.22	94.10	94.10	94.10	94.10	92.79	75.74	75.74
36.5	94.25	94.22	94.22	94.22	94.22	94.22	94.22	92.79	92.79	92.79	92.79	92.79
37.0	94.04	94.04	94.04	94.22	94.22	93.67	93.67	93.67	92.79	92.79	92.79	92.79
37.5	94.04	94.04	94.04	93.83	93.67	93.67	93.67	93.67	93.67	93.67	80.58	80.58
38.0	94.04	93.83	93.83	93.83	93.83	93.67	93.67	93.67	92.59	92.59	92.59	80.58
38.5	93.66	93.66	93.83	93.83	93.83	93.62	93.62	92.59	92.59	92.59	92.59	92.59
39.0	93.66	93.66	93.66	93.62	93.62	93.62	93.62	93.62	93.62	92.59	82.73	82.73
39.5	93.66	93.66	93.46	93.46	93.62	93.62	93.62	93.62	92.19	92.19	82.73	82.73
40.0	93.29	93.46	93.46	93.46	93.46	93.46	93.26	92.19	92.19	92.19	92.19	82.73
40.5	93.29	93.29	93.29	93.46	93.26	93.26	93.26	93.26	92.19	92.19	90.64	90.64
41.0	93.29	93.29	93.10	93.10	93.26	93.26	93.26	93.26	92.00	90.64	90.64	90.64
41.5	93.12	93.10	93.10	93.10	93.10	93.26	93.26	92.00	92.00	92.00	90.64	90.64
42.0	92.94	92.94	93.10	93.10	92.91	92.91	92.91	92.00	92.00	92.00	90.47	78.84
42.5	92.94	92.94	92.94	92.91	92.91	92.91	92.91	92.91	92.00	90.47	90.47	90.47
43.0	92.94	92.75	92.75	92.75	92.91	92.91	92.91	91.64	91.64	90.47	90.47	90.47
43.5	92.60	92.75	92.75	92.75	92.75	92.57	91.64	91.64	91.64	91.64	90.47	80.82
44.0	92.60	92.60	92.60	92.57	92.57	92.57	92.57	92.57	91.64	90.06	90.06	80.82
44.5	92.60	92.60	92.42	92.42	92.57	92.57	92.57	92.57	91.21	90.06	90.06	90.06

KUDD Longley-Rice Predicted Field Strengths Along Pertinent Azimuths (dBμ)

km	Azimuth-Degrees True											
dist.	137	137.5	138	138.5	139	139.36	139.5	140	140.5	141	141.5	142
45.0	92.27	92.42	92.42	92.42	92.42	91.21	91.21	91.21	91.21	91.21	90.06	87.72
45.5	92.27	92.27	92.42	92.42	92.25	92.25	92.25	91.21	91.21	90.04	90.04	87.72
46.0	92.27	92.27	92.10	92.25	92.25	92.25	92.25	92.25	90.04	90.04	90.04	90.04
46.5	92.27	92.10	92.10	92.10	92.25	92.25	90.87	90.87	90.87	90.04	90.04	88.28
47.0	91.96	92.10	92.10	92.10	91.94	90.87	90.87	90.87	90.87	90.87	88.28	88.28
47.5	91.96	91.96	92.10	91.94	91.94	91.94	91.94	90.87	89.95	89.95	89.95	88.28
48.0	91.96	91.80	91.80	91.80	91.94	91.94	91.94	90.49	89.95	89.95	89.95	88.53
48.5	91.66	91.80	91.80	91.80	91.63	90.49	90.49	90.49	90.49	89.95	88.53	88.53
49.0	91.66	91.66	91.80	91.63	91.63	91.63	91.63	90.49	89.63	89.63	88.53	88.53
49.5	91.66	91.66	91.50	91.63	91.63	91.63	91.63	90.07	89.63	89.63	89.63	88.53
50.0	91.50	91.50	91.50	91.50	91.63	90.07	90.07	90.07	89.63	89.63	88.50	88.50
50.5	91.37	91.50	91.50	91.35	91.35	90.07	90.07	90.07	90.07	88.50	88.50	88.50
51.0	91.37	91.37	91.35	91.35	91.35	91.35	91.35	89.42	89.42	89.42	88.50	88.50
51.5	91.37	91.22	91.22	91.35	91.35	91.19	91.19	91.19	89.42	89.42	91.15	86.92
52.0	91.09	91.22	91.22	91.22	91.19	91.19	91.19	91.19	91.19	91.15	91.15	91.15
52.5	91.09	91.09	91.06	91.06	91.06	91.06	91.19	91.19	89.72	89.72	91.15	91.15
53.0	91.09	90.94	90.94	91.06	91.06	91.06	90.91	89.72	89.72	89.72	89.72	86.53
53.5	90.94	90.94	90.94	90.94	90.91	90.91	90.91	90.91	89.72	90.15	90.15	86.53
54.0	90.81	90.94	90.94	90.79	90.79	90.91	90.91	90.91	88.46	90.15	90.15	90.15
54.5	90.81	90.81	90.79	90.79	90.79	90.79	90.79	88.46	88.46	88.46	90.15	86.14
55.0	90.67	90.67	90.67	90.79	90.15	90.15	90.15	90.15	88.46	89.60	89.60	86.14
55.5	90.55	90.67	90.67	90.53	90.15	90.15	90.15	90.15	89.60	89.60	89.60	86.14
56.0	90.55	90.55	90.53	90.53	90.53	90.15	90.15	87.35	87.35	89.60	89.60	88.09
56.5	90.55	90.41	90.41	90.53	90.53	90.39	90.39	87.35	87.35	87.35	88.09	88.09
57.0	90.29	90.41	90.41	90.27	90.39	90.39	90.39	90.39	89.09	89.09	89.09	88.09
57.5	90.29	90.41	90.27	90.27	90.27	90.39	90.39	90.07	90.07	89.09	89.09	88.27
58.0	90.29	90.16	90.27	90.27	90.27	90.14	90.07	90.07	90.07	89.09	88.27	88.27
58.5	90.16	90.16	90.16	90.27	90.14	90.14	90.14	90.07	90.07	88.83	88.27	88.27
59.0	90.04	90.16	90.16	90.03	90.14	90.14	90.14	89.56	88.83	88.83	88.83	86.08
59.5	90.04	90.04	90.03	90.03	90.03	90.14	89.56	89.56	89.56	88.83	87.06	87.06
60.0	90.04	89.92	89.92	90.03	89.89	89.89	89.89	89.56	89.56	88.43	87.06	87.06
60.5	89.80	89.92	89.92	89.79	89.89	89.89	89.89	89.89	88.43	88.43	87.06	85.47
61.0	89.80	89.80	89.79	89.79	89.89	89.89	89.76	89.76	88.43	88.43	89.20	85.47
61.5	89.80	89.68	89.79	89.79	89.66	89.66	89.76	89.76	89.76	89.20	89.20	89.20
62.0	89.68	89.68	89.68	89.66	89.66	89.66	89.66	89.76	89.47	89.47	89.20	87.90
62.5	89.57	89.68	89.55	89.55	89.66	89.66	89.66	89.35	89.47	89.47	88.83	87.90
63.0	89.57	89.45	89.55	89.55	89.55	89.35	89.35	89.35	89.35	88.83	88.83	87.90
63.5	89.45	89.45	89.45	89.55	89.43	89.43	89.43	89.35	89.40	88.83	88.83	88.83
64.0	89.34	89.45	89.45	89.32	89.43	89.43	89.43	89.40	89.40	89.40	88.32	88.32
64.5	89.34	89.34	89.32	89.32	89.43	89.30	89.30	89.30	89.40	89.03	89.03	88.32
65.0	89.34	89.22	89.32	89.32	89.20	89.30	89.30	89.30	89.18	89.03	89.03	88.32
65.5	89.22	89.22	89.22	89.20	89.20	89.20	89.20	89.18	89.18	89.03	89.03	88.84
66.0	89.09	89.22	89.10	89.10	89.20	89.08	89.08	89.08	89.18	89.18	88.84	88.84
66.5	89.09	88.97	89.10	89.10	88.99	89.08	89.08	89.08	88.71	88.71	88.71	88.84
67.0	88.97	88.97	88.97	88.99	88.99	88.99	89.08	88.96	88.96	88.71	88.71	88.69

KUDD Longley-Rice Predicted Field Strengths Along Pertinent Azimuths (dBμ)

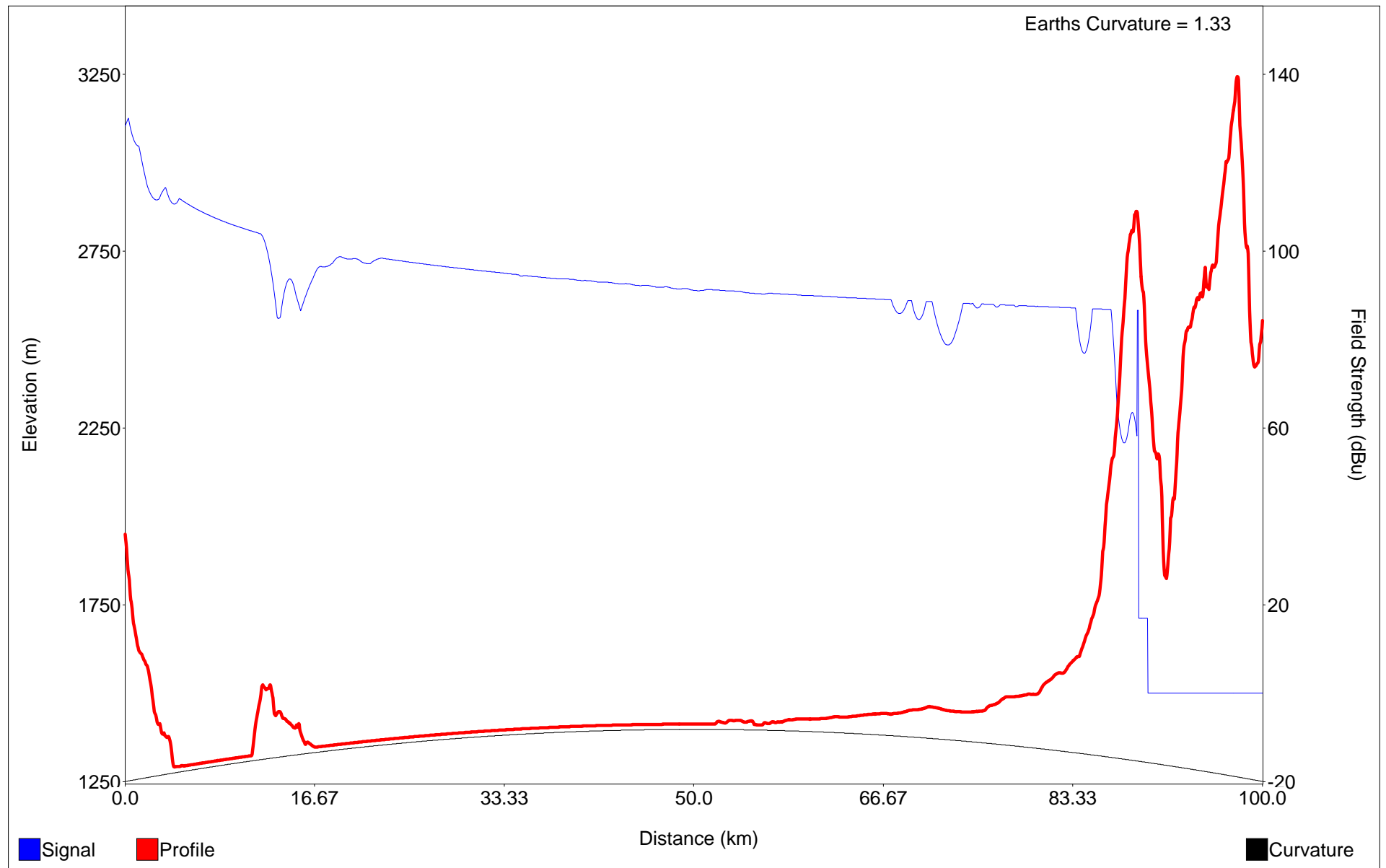
km	Azimuth-Degrees True											
dist.	137	137.5	138	138.5	139	139.36	139.5	140	140.5	141	141.5	142
67.5	53.07	88.97	72.04	88.99	88.99	88.99	88.87	88.96	88.96	88.96	88.69	88.69
68.0	53.07	69.94	72.04	72.04	88.87	88.87	88.87	88.87	88.96	88.85	88.69	88.69
68.5	69.94	69.94	72.04	88.77	88.77	88.87	88.87	88.87	88.85	88.85	88.85	87.34
69.0	69.94	69.94	69.94	88.77	88.77	88.77	88.77	88.75	88.75	88.85	88.26	88.26
69.5	33.22	69.94	58.77	58.77	88.77	88.66	88.66	88.75	88.75	88.64	88.26	88.26
70.0	33.22	52.93	58.77	58.77	88.66	88.66	88.66	88.66	88.64	88.64	88.26	87.04
70.5	52.93	52.93	52.93	88.56	88.56	88.66	88.66	88.55	88.55	88.64	88.00	87.04
71.0	48.52	52.93	61.03	88.56	88.56	88.46	88.46	88.55	88.55	88.00	88.00	88.00
71.5	48.52	48.80	61.03	61.03	88.46	88.46	88.46	88.46	88.35	88.35	88.00	86.88
72.0	48.80	48.80	61.03	73.25	73.25	88.46	88.46	88.17	88.35	88.35	86.96	86.88
72.5	48.80	48.80	63.60	73.25	73.25	88.26	88.17	88.17	88.17	86.96	86.96	86.88
73.0	50.71	63.60	63.60	63.60	88.26	88.26	88.26	88.17	87.62	86.96	86.96	86.20
73.5	59.24	59.24	63.60	88.17	88.26	88.26	88.26	87.42	87.62	87.62	86.20	86.20
74.0	59.24	59.24	68.61	88.17	88.17	88.26	87.42	87.42	87.62	85.93	85.93	86.20
74.5	56.06	59.24	68.61	88.17	88.07	88.07	88.07	87.42	86.97	85.93	85.93	84.77
75.0	56.06	63.54	68.61	68.61	88.07	88.07	88.07	86.97	86.97	86.97	85.58	85.58
75.5	63.54	63.54	68.61	87.97	87.97	88.07	88.07	87.96	86.97	86.11	85.58	85.58
76.0	57.49	63.54	68.89	87.97	87.97	87.87	87.96	87.96	87.96	86.11	86.11	85.58
76.5	57.49	68.89	68.89	68.89	87.87	87.87	87.87	87.96	87.65	86.11	86.11	84.34
77.0	64.31	64.31	68.89	87.78	87.87	87.87	87.87	87.65	87.65	87.65	85.48	85.48
77.5	64.31	64.31	68.81	87.78	87.78	87.77	87.77	87.77	87.65	87.29	85.48	85.48
78.0	63.08	68.81	68.81	87.78	87.68	87.68	87.77	87.77	87.67	87.29	87.29	84.02
78.5	73.49	73.49	68.81	87.59	87.68	87.68	87.68	87.67	87.67	87.29	85.34	84.02
79.0	73.49	73.49	87.59	87.59	87.68	87.58	87.58	87.58	87.67	87.33	85.34	85.34
79.5	51.44	73.49	74.66	87.59	87.50	87.58	87.58	87.58	87.33	87.33	85.34	84.14
80.0	51.44	74.66	74.66	87.50	87.50	87.50	87.50	87.48	87.48	87.33	85.91	84.14
80.5	87.38	87.38	74.66	87.41	87.50	87.50	87.40	87.48	87.48	85.91	85.91	85.91
81.0	87.38	87.38	39.68	87.41	87.31	87.40	87.40	87.40	87.39	87.39	85.91	83.31
81.5	25.59	39.68	39.68	87.41	87.31	87.31	87.40	87.30	87.39	87.39	86.86	83.31
82.0	54.38	54.38	39.68	87.22	87.31	87.31	87.21	87.30	87.30	86.86	86.86	83.31
82.5	54.38	54.38	87.22	87.22	87.31	87.21	87.21	87.30	87.21	87.21	86.86	84.90
83.0	87.11	87.10	87.10	87.22	87.13	87.21	87.21	87.12	87.21	87.21	84.90	84.90
83.5	87.11	87.10	87.10	87.13	87.13	87.13	87.13	87.12	87.12	86.57	86.57	84.90
84.0	31.81	31.81	32.99	32.99	87.13	87.03	87.03	87.12	87.02	86.57	86.57	84.56
84.5	31.81	31.81	32.99	32.99	86.94	87.03	87.03	87.03	87.02	87.02	86.66	86.66
85.0	21.69	43.17	43.17	86.94	86.94	87.03	87.03	86.91	87.02	86.93	86.66	86.66
85.5	49.41	49.41	43.17	86.84	86.94	86.82	86.82	86.91	86.91	86.93	86.93	86.92
86.0	49.41	49.41	86.84	86.84	86.82	86.82	86.82	86.91	86.80	86.93	86.85	86.92
86.5	51.05	34.93	34.93	86.74	86.74	86.82	86.82	86.71	86.80	86.80	86.85	86.85
87.0	86.67	34.93	34.93	86.74	86.74	20.43	86.71	86.71	86.80	86.72	86.85	86.75
87.5	86.67	86.67	86.66	86.66	20.43	20.43	20.43	86.71	23.46	86.72	86.72	86.75
88.0	86.67	86.58	86.66	86.66	20.43	20.43	20.43	23.46	23.46	86.72	86.65	86.75
88.5	86.59	86.58	86.58	86.55	86.55	20.43	46.27	46.27	23.46	52.30	86.65	86.57
89.0	86.49	86.49	17.09	17.09	86.55	16.90	16.90	46.27	6.12	52.30	86.65	86.57
89.5	86.49	NC	17.09	17.09	16.90	16.90	16.90	6.12	6.12	52.30	31.95	86.57

KUDD Longley-Rice Predicted Field Strengths Along Pertinent Azimuths (dBμ)

km	Azimuth-Degrees True											
dist.	137	137.5	138	138.5	139	139.36	139.5	140	140.5	141	141.5	142
90.0	58.08	NC	NC	NC	NC	16.90	16.90	NC	6.12	NC	31.95	86.57

Note: "NC" in a column indicates that the field strength at that azimuth and distance was not calculated.

KUDD 139 Degree True Radial Profile



Starting Latitude: 41-15-27 N

End Latitude: 40-34-30.94 N

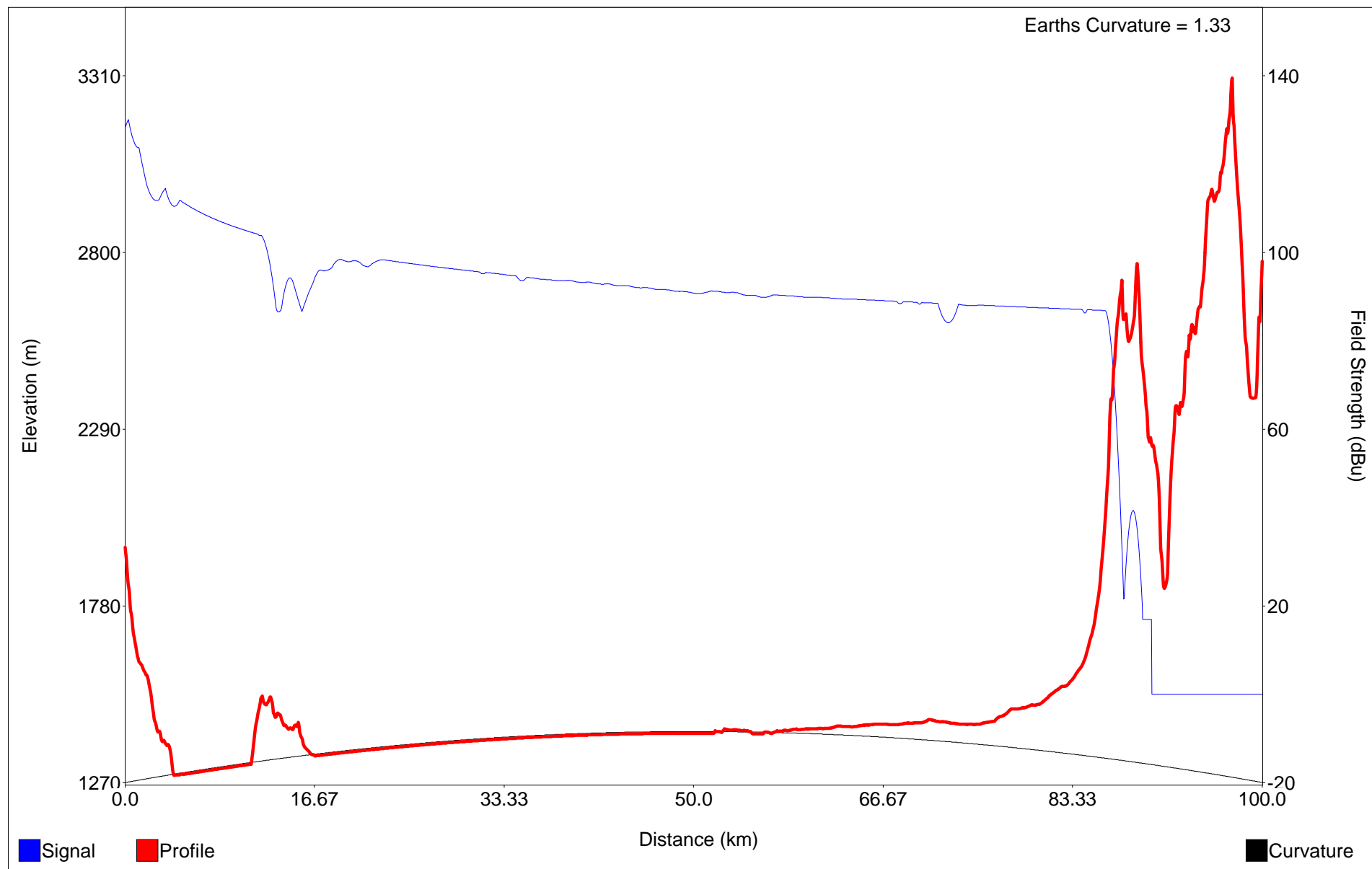
Distance: 100 km

Starting Longitude: 112-26-24 W

End Longitude: 111-39-54.74 W

Bearing: 139 deg

KUDD 139.36 Degree True Radial Profile



Starting Latitude: 41-15-27 N

Starting Longitude: 112-26-24 W

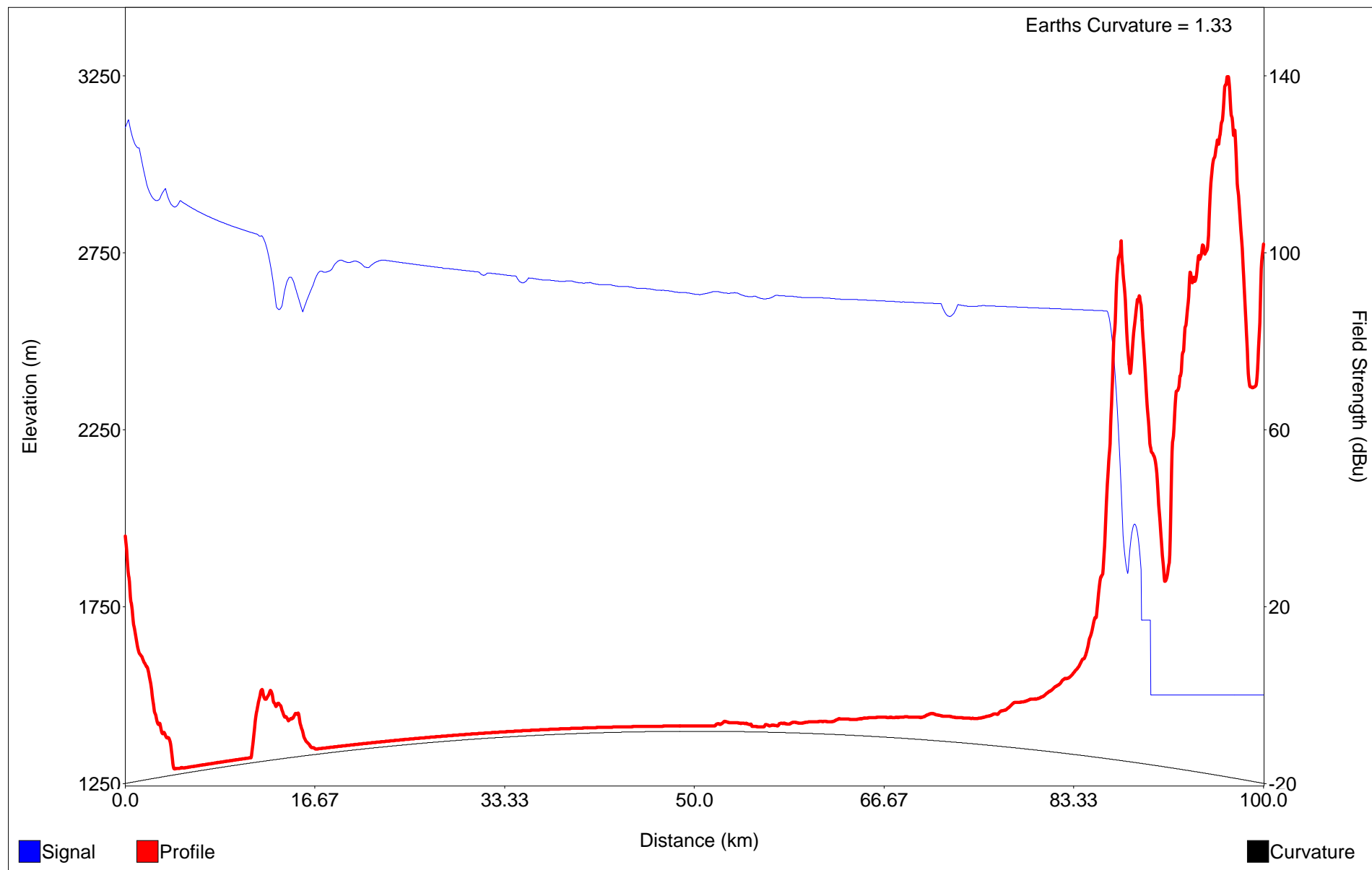
End Latitude: 40-34-17.76 N

End Longitude: 111-40-15.11 W

Distance: 100 km

Bearing: 139.36 deg

KUDD 139.5 Degree True Radial Profile



Starting Latitude: 41-15-27 N

Starting Longitude: 112-26-24 W

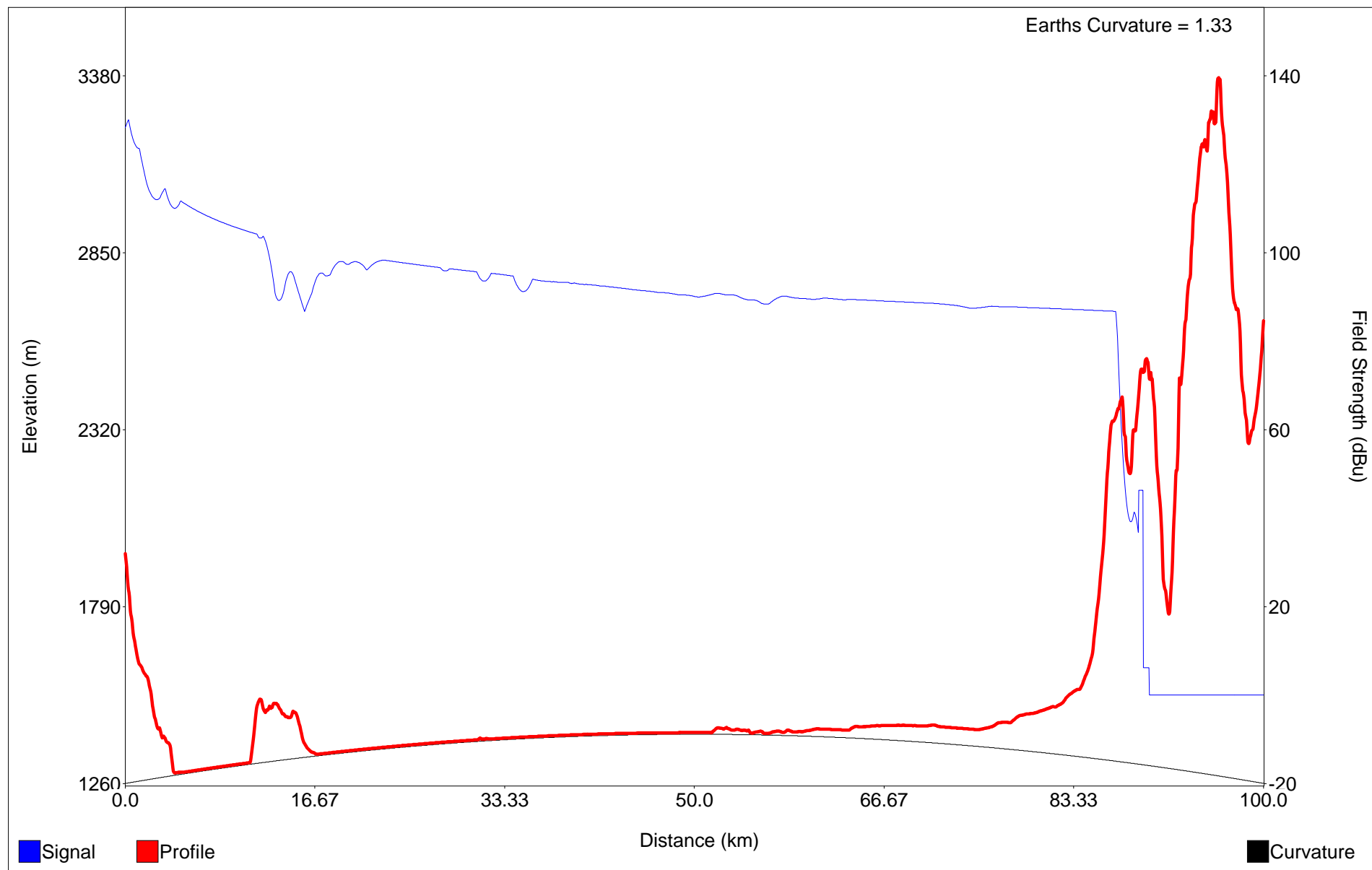
End Latitude: 40-34-12.66 N

End Longitude: 111-40-23.06 W

Distance: 100 km

Bearing: 139.5 deg

KUDD 140 Degree True Radial Profile



Starting Latitude: 41-15-27 N

Starting Longitude: 112-26-24 W

End Latitude: 40-33-54.57 N

End Longitude: 111-40-51.58 W

Distance: 100 km

Bearing: 140 deg