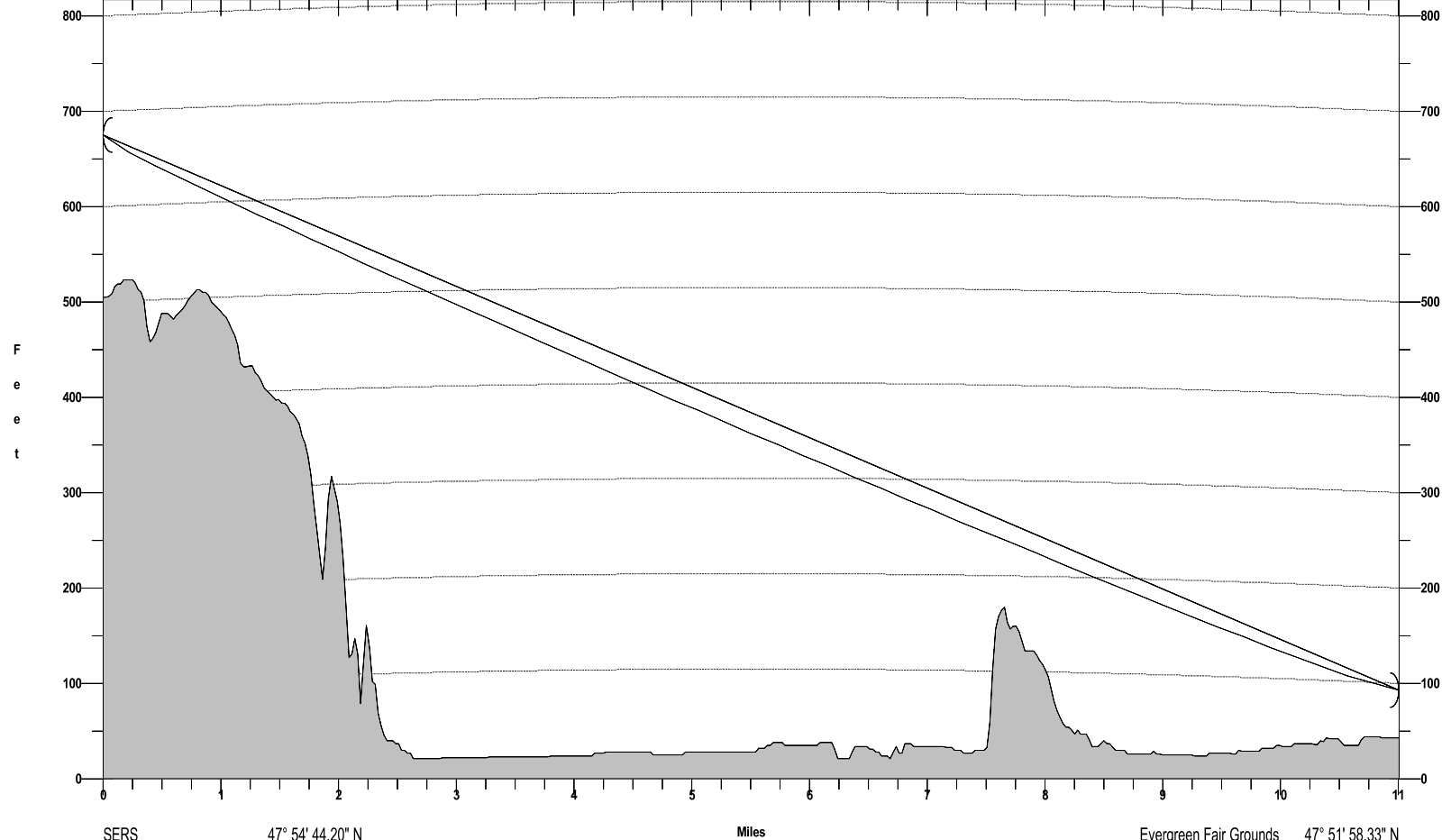


Path Distance: 11.007 mi.
Tx LOS Path Inclination: -0.5744 deg.

Tx LOS Path Inclination: 0.5744 deg.



SERS 47° 54' 44.20" N
 122° 13' 02.63" W
Elevation 505.3 ft.
Ant. AGL - Tx/Rx/Div 170.0/170.0/0.0 ft.
Frequency - Tx 11000.00000 MHz
Azimuth 106.727 deg T

Evergreen Fair Grounds 47° 51' 58.33" N
 121° 59' 26.40" W
Elevation 42.7 ft.
Ant. AGL - Tx/Rx/Div 50.0/50.0/0.0 ft.
Frequency - Tx 11000.00000 MHz
Azimuth 286.895 deg T

KEY: Profile

 K = 4/3

 K = 4/3, F = 0.6°F1

Microwave Link Analysis

	Site A	Site B
Site Name	: SERS	Evergreen Fair Ground
Location	:	
Call Sign	:	
Latitude	: 47° 54' 44.20" N	47° 51' 58.33" N
Longitude	: 122° 13' 02.63" W	121° 59' 26.40" W
Elevation	ft/m: 505.3 / 154.0	42.7 / 13.0
Azimuth	deg: 106.7267	286.8949
Distance	mi/km: 11.007 / 17.7	11.007 / 17.7
Frequency	MHz: 11000.00000	11000.00000
Equipment	:	
Tx Antenna Height	ft: 170.00	50.00
Tx Antenna Type	:	
Tx Antenna Size / Polarization	ft: 6 / V	6 / V
Tx Transmission Line Length	ft: 0.00	0.00
Tx Transmission Line Type	:	
Rx Antenna Height	ft: 170.00	50.00
Rx Antenna Type	:	
Rx Antenna Size / Polarization	ft: 6 / V	6 / V
Rx Transmission Line Length	ft: 0.00	0.00
Rx Transmission Line Type	:	
Effective Isotropic Radiated Power	dBm: 64.30	64.30
System Gains	Site A to B	Site B to A
Tx Antenna Gain	dBi: 44.30	44.30
Rx Antenna Gain	dBi: 44.30	44.30
Transmitter Power	dBm: 20.00	20.00
Total System Gain	dB: 108.60	108.60
System Losses	Site A to B	Site B to A
Free Space Path Loss	dBi: 138.242	138.242
Atmospheric Absorption	dB: 0.28	0.28
Total System Loss	dB: 138.52	138.52
Path Calculations	Site A to B	Site B to A
Unfaded Receive Signal Level	dBm: -29.92	-29.92
Rx Threshold Level	dBm: -76.00	-76.00
Fade Margin	dB: 46.08	46.08
Outage	sec/year: 75.03	75.03
Rain Outage	sec/year: 0.00	0.00
Propagation Reliability	%: 99.99976208	99.99976208
Outage Parameters: Vigants		
Climate Factor (c)	6.000	
Terrain Factor (w)	140.0	
Average Temperature	30.0°C / 86.0°F	