

Channel Spacing Study KPVO(FM), Channel 260A

REFERENCE		DISPLAY DATES
39 32 46.1 N.	CLASS = A	DATA 02-20-23
111 34 40.6 W.	Current Spacings to 3rd Adj.	SEARCH 02-20-23
----- Channel 260 - 99.9 MHz -----		

Call	Channel	Location		Azi	Dist	FCC	Margin
KPVO	CP -N 260A	Fountain Green	UT	253.1	0.12	114.5	-114.4
KPVO	LIC 260A	Fountain Green	UT	325.5	10.89	114.5	-103.6
Of no concern: Coordinates used by instant facility.							
KWSA	LIC 261A	Price	UT	89.9	65.45	71.5	-6.1
Of concern: Protection afforded via \$73.215.							
KJMY	LIC 258C	Bountiful	UT	337.4	127.92	94.5	33.4
KEKB	LIC-N 260C0	Fruita	CO	101.5	249.82	214.5	35.3
KSFI	LIC 262C	Salt Lake City	UT	337.0	134.58	94.5	40.1
KMXD	LIC 263C	Monroe	UT	207.1	144.51	94.5	50.0

All separation margins include rounding

KPVO(FM), Fountain Green, UT
F(50,50) 70 dBu and
60 dBu Contours

Fountain Green
City Limits

Site
39-32-46.1
111-34-40.6

Fairview

Mount Pleasant

Moroniz

Wales

Spring City

F(50,50)
70 dBu

Ephraim

F(50,50)
60 dBu

Manti

Sterling

KPVO(FM)

Latitude: 39-32-46.1 N
Longitude: 111-34-40.6 W
ERP: 2.30 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 1848.5 m
Elevation: 1834.0 m
HAAT: -53.9 m
Horiz. Pattern: Omni
Prop Model: FCC

0 5 10
kilometers

KPVO(FM)

Latitude: 39-32-46.1 N
Longitude: 111-34-40.6 W
ERP: 2.30 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 1848.5 m
Elevation: 1834.0 m
HAAT: -53.9 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC

KWSA(FM)

Latitude: 39-32-42 N
Longitude: 110-48-57 W
ERP: 6.00 kW
Channel: 261
Frequency: 100.1 MHz
AMSL Height: 1879.0 m
Elevation: 1777.0 m
HAAT: 100.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC

KPVO(FM), Fountain Green, UT
KWSA(FM), Price, UT
Protected and Interfering
Contours

F(50,10) 54 dBu

KPVO(FM)
39-32-45.1
111-34-40.3

KWSA(FM)
39-32-46
111-34-40

F(50,50) 60 dBu

0 20 40
kilometers

**KPVO(FM), Fountain Green, UT
F(50,50) 70 dBu and
Longley-Rice 70 dBu
Over the City of License**

KPVO(FM)

Latitude: 39-32-46.1 N
Longitude: 111-34-40.6 W
ERP: 2.30 kW
Channel: 260
Frequency: 99.9 MHz
AMSL Height: 1848.5 m
Elevation: 1834.0 m
HAAT: -54.4 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

**Longley-Rice
70 dBu**

**Fountain Green
City Limits**

**F(50,50)
70 dBu**

0 2.5 5
kilometers

Site
39-32-46.1
111-34-40.6

KPVO(FM), Channel 260A, Fountain Green, UT
Delta-h Study Along the 329° Radial

Distance from <u>Tx (km)</u>	<u>Elevation (m)</u>	Distance from <u>Tx (km)</u>	<u>Elevation (m)</u>	Distance from <u>Tx (km)</u>	<u>Elevation (m)</u>	Distance from <u>Tx (km)</u>	<u>Elevation (m)</u>
10.0	1797.5	12.3	1865.0	14.6	1935.4	16.9	1951.1
10.1	1800.1	12.4	1869.9	14.7	1935.4	17.0	1950.6
10.2	1802.6	12.5	1874.4	14.8	1933.4	17.1	1951.8
10.3	1805.2	12.6	1877.6	14.9	1935.5	17.2	1952.6
10.4	1807.8	12.7	1879.9	15.0	1943.9	17.3	1953.4
10.5	1810.4	12.8	1882.5	15.1	1949.9	17.4	1953.6
10.6	1812.9	12.9	1884.6	15.2	1950.0	17.5	1953.5
10.7	1814.7	13.0	1886.8	15.3	1951.3	17.6	1953.2
10.8	<u>1815.8*</u>	13.1	1887.7	15.4	1951.4	17.7	1952.9
10.9	1817.3	13.2	1888.6	15.5	1952.4	17.8	1952.0
11.0	1818.3	13.3	1891.6	15.6	1952.8	17.9	1951.7
11.1	1820.1	13.4	1899.0	15.7	1952.9	18.0	1950.0
11.2	1822.3	13.5	1906.3	15.8	1954.6	18.1	1950.0
11.3	1823.9	13.6	1910.7	15.9	1956.0	18.2	1950.0
11.4	1826.2	13.7	1914.0	16.0	1957.9	18.3	1947.1
11.5	1828.2	13.8	1917.0	16.1	1958.5	18.4	1937.8
11.6	1829.9	13.9	1919.4	16.2	1958.5		
11.7	1835.2	14.0	1921.4	16.3	1957.9		
11.8	1841.1	14.1	1923.1	16.4	1956.6		
11.9	1846.9	14.2	1925.5	16.5	1955.5		
12.0	1851.4	14.3	1927.8	16.6	<u>1954.0**</u>		
12.1	1856.5	14.4	1930.2	16.7	1953.4		
12.2	1860.8	14.5	1932.5	16.8	1951.8		

*h_{min} = 1815.8 m **h_{max} = 1954.0 m **Δh = 138.2 m**

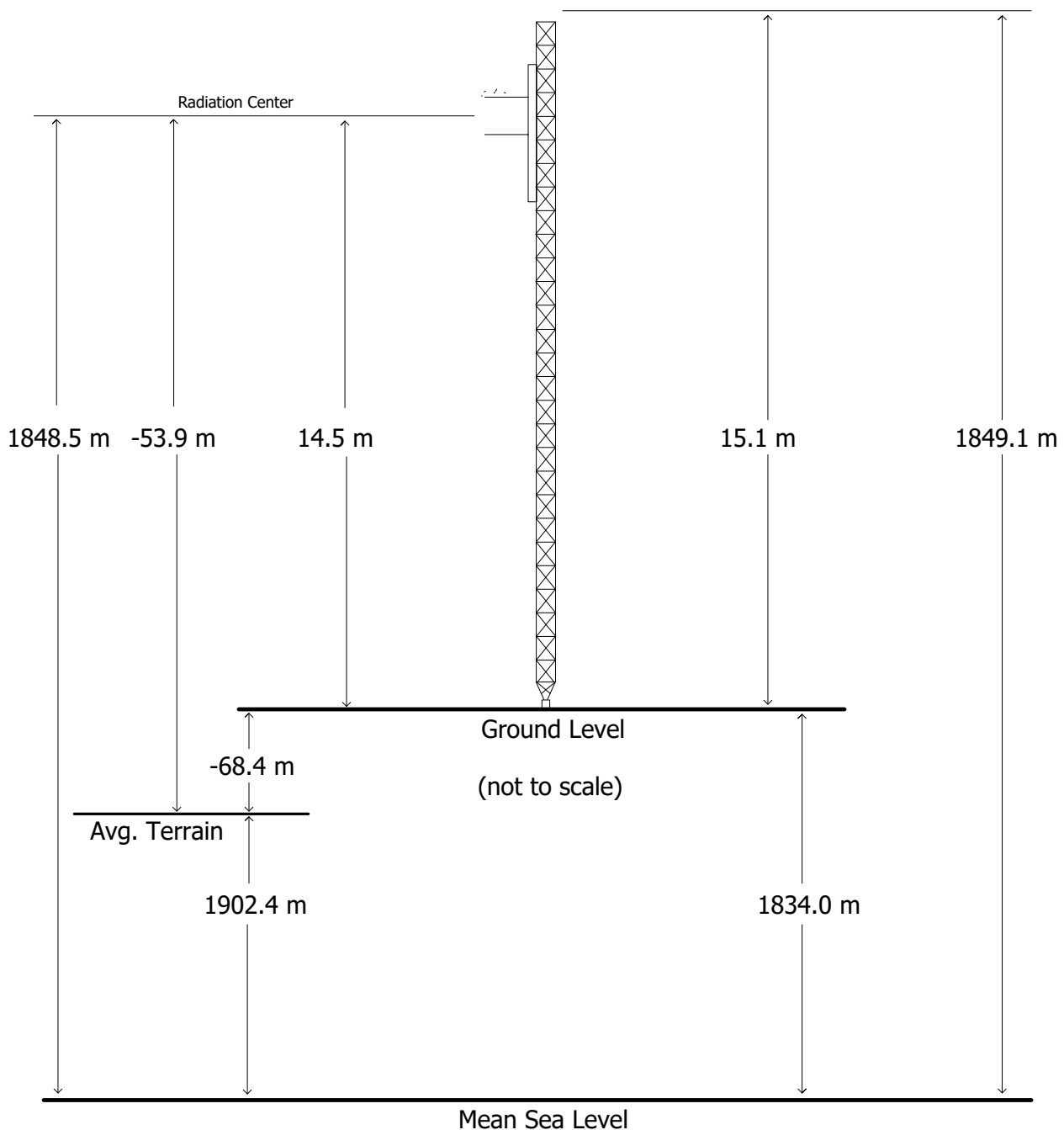
Note: This study qualifies for alternative means, since the Δh is greater than 100 meters.

KPVO(FM), Channel 260A, Fountain Green, UT
FCC/Longley-Rice 70 dBu Contour Comparison Study

(demonstrating a greater than 10% difference between the F(50,50) 70 dBu and the alternative method)

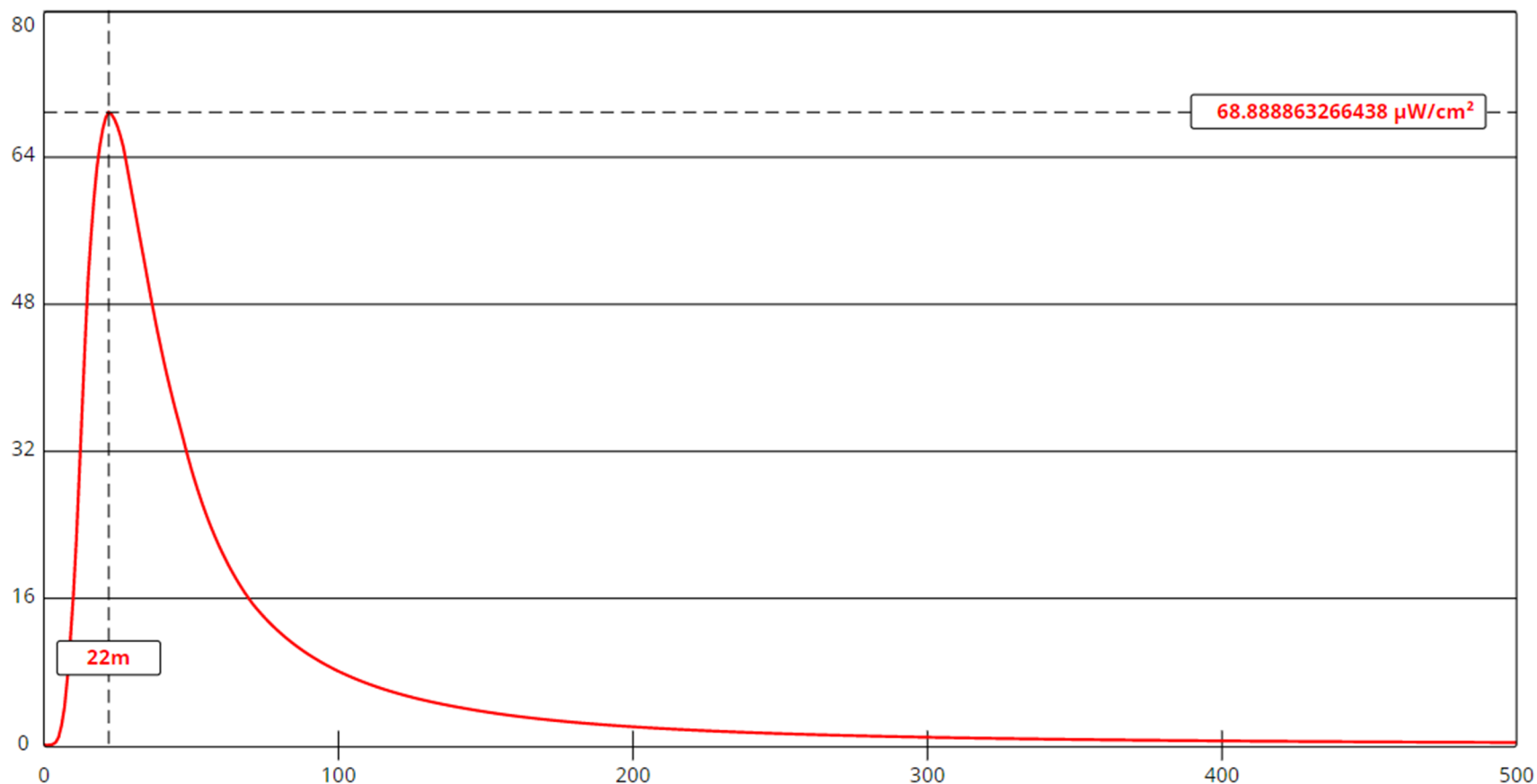
Azimuth (°T)	Distance to Longley-Rice 70 dBu	Distance to F(50,50) 70 dBu	Percentage Difference
323	15.4	6.9	123.2%
324	15.4	6.9	123.2%
325	16.6	6.9	140.6%
326	18.6	6.9	169.6%
327	18.3	7.3	150.7%
328	18.4	7.7	139.0%
329	18.4	8.0	130.0%
330	18.7	8.2	128.0%
331	19.0	8.3	128.9%
332	20.4	8.4	142.9%
333	16.8	8.3	102.4%
334	17.2	8.2	109.8%
335	20.7	7.9	162.0%
336	19.3	7.6	153.9%

**KPVO(FM), Fountain Green, UT
Tower Vertical Sketch**



NAD 83
Site Coordinates:
39° 32' 46.1"
111° 34' 40.6"

KPVO(FM) Human Exposure Study Using FM Model | Federal Communications Commission



[View Tabular Results +](#)

Channel Selection	Channel 260 (99.9 MHz) ▾		
Antenna Type +	EPA Type 2: Opposed V Dipole ▾		
Height (m)	<input type="text" value="14.5"/>	Distance (m)	<input type="text" value="500"/>
ERP-H (W)	<input type="text" value="2300"/>	ERP-V (W)	<input type="text" value="0"/>
Num of Elements	<input type="text" value="2"/>	λ	<input type="text" value="0.5"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	