

## Engineering Statement

### In Support of a Modification of an Existing License KWKD, Randolph, Utah

#### KWKD Licensed Terrain/Contour Study

##### Proposed Facility (96 kW at 611 meters HAAT)

Azimuth	ERP (dBk)	Terrain Average		Radiation	Distance to F(50,50) 60 dBu
		Meters AMSL	Center	Meters HAAT	
0.0	19.823	2479.0		814.0	99.6
15.0	19.823	2542.8		750.2	97.2
30.0	19.823	2656.9		636.1	92.8
45.0	19.823	2709.0		584.0	90.8
60.0	19.823	2668.2		624.8	92.3
75.0	19.823	2710.4		582.6	90.7
90.0	19.823	2763.3		529.7	88.1
105.0	19.823	2802.5		490.5	85.7
120.0	19.823	2907.3		385.7	78.3
135.0	19.823	2973.3		319.7	73.4
150.0	19.823	3089.2		203.8	63.8
165.0	19.823	2864.3		428.7	81.5
180.0	19.823	2722.3		570.7	90.2
195.0	19.823	2853.7		439.3	82.2
210.0	19.823	2775.1		517.9	87.4
225.0	19.823	2630.9		662.1	93.8
240.0	19.823	2860.6		432.4	81.7
255.0	19.823	2725.5		567.5	90.1
270.0	19.823	2612.9		680.1	94.4
285.0	19.823	2426.2		866.8	101.5
300.0	19.823	2337.0		956.0	104.2
315.0	19.823	2394.4		898.6	102.6
330.0	19.823	2429.5		863.5	101.4
345.0	19.823	2433.4		859.6	101.3

<p>Average HAAT = 611.0 meters Average of 24 Radials = 90.2 kilometers</p>
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**Maximum class C (100 kW at 600 meters HAAT)**

<u>Azimuth</u>	<u>ERP (dBk)</u>	Terrain Average		Radiation Center	Distance to F(50,50)
		<u>Meters AMSL</u>	<u>Meters HAAT</u>		<u>60 dBu</u>
0.0	19.823	2479.0	803.0		99.7
15.0	19.823	2542.8	739.2		97.2
30.0	19.823	2656.9	625.1		92.8
45.0	19.823	2709.0	573.0		90.7
60.0	19.823	2668.2	613.8		92.3
75.0	19.823	2710.4	571.6		90.7
90.0	19.823	2763.3	518.7		87.8
105.0	19.823	2802.5	479.5		85.5
120.0	19.823	2907.3	374.7		77.9
135.0	19.823	2973.3	308.7		73.0
150.0	19.823	3089.2	192.8		63.1
165.0	19.823	2864.3	417.7		81.1
180.0	19.823	2722.3	559.7		90.1
195.0	19.823	2853.7	428.3		81.9
210.0	19.823	2775.1	506.9		87.1
225.0	19.823	2630.9	651.1		93.8
240.0	19.823	2860.6	421.4		81.3
255.0	19.823	2725.5	556.5		90.0
270.0	19.823	2612.9	669.1		94.5
285.0	19.823	2426.2	855.8		101.7
300.0	19.823	2337.0	945.0		104.4
315.0	19.823	2394.4	887.6		102.7
330.0	19.823	2429.5	852.5		101.6
345.0	19.823	2433.4	848.6		101.4

<p>Average HAAT = 600 meters Average of 24 Radials = 90.1 kilometers</p>
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