

APPLICATION FOR  
SPECIAL  
TEMPORARY  
AUTHORITY FOR  
KDFL-LP FACILITY  
ID NO.: 130564

December 9, 2013

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## **1.0 PURPOSE OF SPECIAL TEMPORARY AUTHORITY (STA)**

Una Vez Mas Lubbock License, LLC (“UVML”) is the licensee of the LPTV facility KDFL-LP which is licensed<sup>1</sup> to use out-of-core channel 69 and has previously filed a displacement channel digital flash-cut application resulting in a construction permit<sup>2</sup> for in-core Channel 17 facility.

UVML is awaiting acquisition of the construction permitted Scala 4DR-8-2HW broadcast antenna. In the interim it is herein proposed to temporarily utilize a Harris TAD-2UDA-1/1 as a substitution antenna for broadcast operations until the acquisition of the permitted antenna is complete and installed. Accordingly, a special temporary authority is respectfully requested to operate as herein proposed. Specifically Appendix A demonstrates how the technical parameters of the proposed STA shall deviate from the construction permit.

## **2.0 PROPOSED ANTENNA**

Appendix B demonstrates the pre-rotated electrical specifications of the proposed antenna. It is herein proposed to rotate the antenna 334 degrees from true north in order to best fit the construction permitted pattern.

## **3.0 ALLOCATION ANALYSIS**

The proposed antenna shown in Appendix B shall be placed at the same location and height as the construction permitted facility as demonstrated in Appendix A and rotated as discussed in section 2.0. Appendix C demonstrates that the proposed ERP does not exceed the ERP of the construction permitted facility for any azimuthal direction. Accordingly Appendix D further demonstrates that the proposed 51 dBu F(50,90) contour does not encroach beyond the permitted contour. As such it is not possible for the proposed facility to create increase interference to any location relative to the construction permitted facility to other facilities and as such no further allocation studies were prepared.

## **4.0 AM STATION PROXIMITY**

Pursuant to 47 C.F.R. Section 1.30002(e), the construction or extension of an antenna-supporting structure shall be considered subject to the moment method analysis and prior notification requirement; however, the instant application does not propose to extend the existing structure or build a new structure. Thus, the proposed facility is exempt from further AM analysis consideration.

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<sup>1</sup> FCC File No.: BLTTL-20050926ADF

<sup>2</sup> FCC File No.: BDISDTL-20080925AGJ

## **5.0 INTERNATIONAL COORDINATION**

The proposed facility lies beyond 320km from any international boarder and thus international coordination is not required.

## **6.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)**

### **6.1 General Environmental Requirements**

The proposed STA will not require modifying the support structure to:

- Add high intensity white lighting.
- Be re-located to an official designated wilderness area or wildlife preserve.
- Threaten the existence or habitat of endangered species.
- Affect districts, sites, buildings, structures or objects significant in American history, architecture, archaeology, engineering or culture that are listed in the National Register of Historic Places or are eligible for listing.
- Affect Indian religious sites.
- Be re-located to a floodplain
- Require construction that involves significant changes in surface features (e.g., wetland fill, deforestation or water diversion).

### **6.2 Radio Frequency Radiation (RFR) Compliance.**

Appendix E is an RFR study demonstrating that the peak exposure is 0.01% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of the proposed facility were not taken into account. The instant application is compliant with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

## 7.0 CERTIFICATION

The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge. Executed on December 9, 2013.

KESSLER AND GEHMAN ASSOCIATES, INC.



Ryan Wilhour  
Consulting Engineer

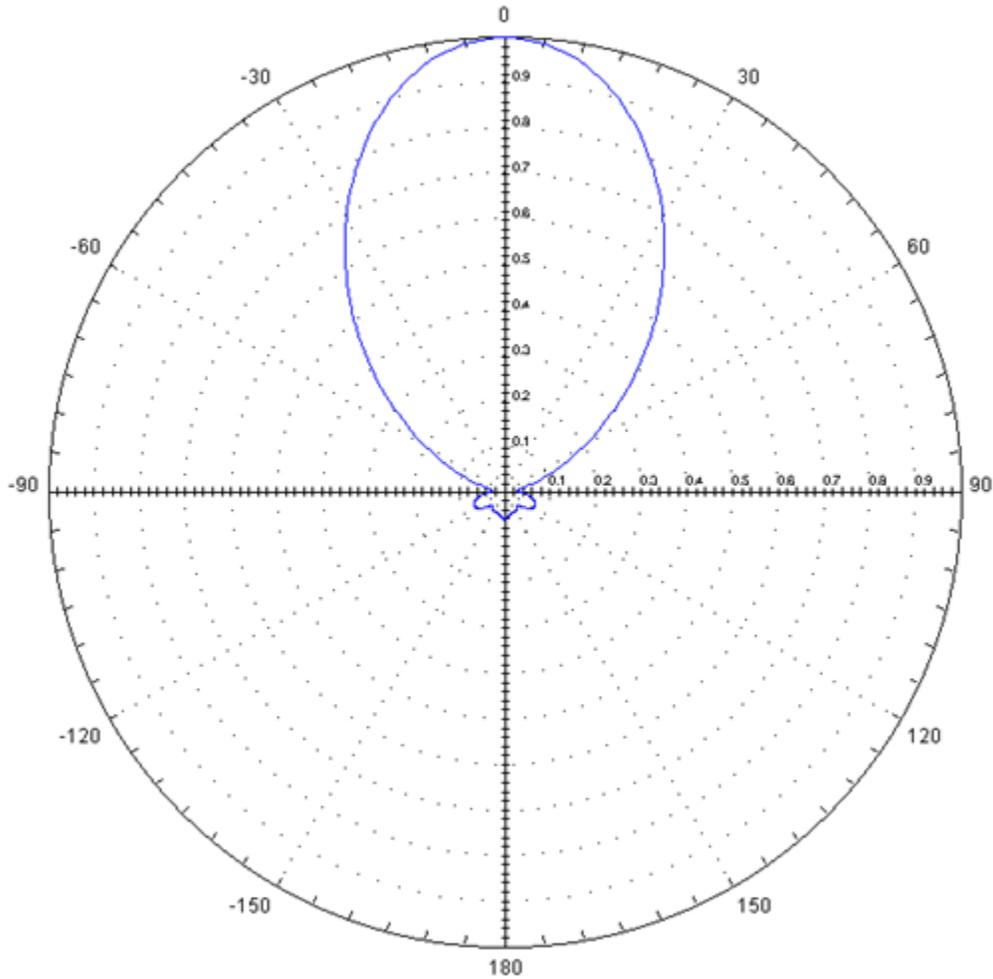
**APPENDIX A – CONSTRUCTION PERMIT VS STA TECHNICAL PARAMETERS**

	Construction Permitted: BDISDTL-20080925AGJ		STA Parameters	
<b>Transmitter Site</b>				
N. Latitude (NAD 27)	33 ° 30 ' 57.5 "		33 ° 30 ' 57.5 "	
W. Longitude (NAD 27)	101° 50 ' 54.3 "		101° 50 ' 54.3 "	
FAA Study Number:	2003-ASW-3394-OE		2003-ASW-3394-OE	
ASR Study Number:	1061040		1061040	
<b>Emission Characteristics</b>				
Channel / Emission Mask:	17 / Stringent		17 / Stringent	
Frequency:	488 - 494 MHz		488 - 494 MHz	
<b>Antenna and Other Elevations</b>				
Height of Site Above Mean Sea Level (AMSL)	979.6 m		979.6 m	
Overall Height of Structure Above Ground (AGL)	241.2 m		241.2 m	
(including all appurtenances)	266.7 m		266.7 m	
Overall Height of Structure Above Mean Sea Level	1220.8 m		1220.8 m	
(including all appurtenances)	1246.3 m		1246.3 m	
Average Terrain	976.9 m		976.9 m	
Effective Height of Antenna Above Ground	120.0 m		120.0 m	
Effective Height of Antenna Above Average Terrain	122.7 m		122.7 m	
Effective Height of Antenna Above Mean Sea Level	1099.6 m		1099.6 m	
<b>Antenna Parameters</b>				
	H Polarization	V Polarization	H Polarization	V Polarization
Transmitter Power Output (TPO)	500 W		<del>24.6 W</del>	
System Losses	3.73 dB		3.73 dB	
Input Power to Antenna	23.26 dBW		<del>10.16 dBW</del>	
Maximum Antenna Gain in Beam Maximum	8.5 dB		<del>11.6 dB</del>	
Maximum Effective Radiated Power	31.76 dBW	-----	<del>21.76 dBW</del>	-----
In Beam Maximum	1.5 kW	-----	<del>0.15 kW</del>	-----
Antenna Make / Model	Scala – 4DR-8-2HW		<del>Harris - TAD-2UDA-1/1</del>	

APPENDIX B – ANTENNA ELECTRICAL SPECIFICATIONS



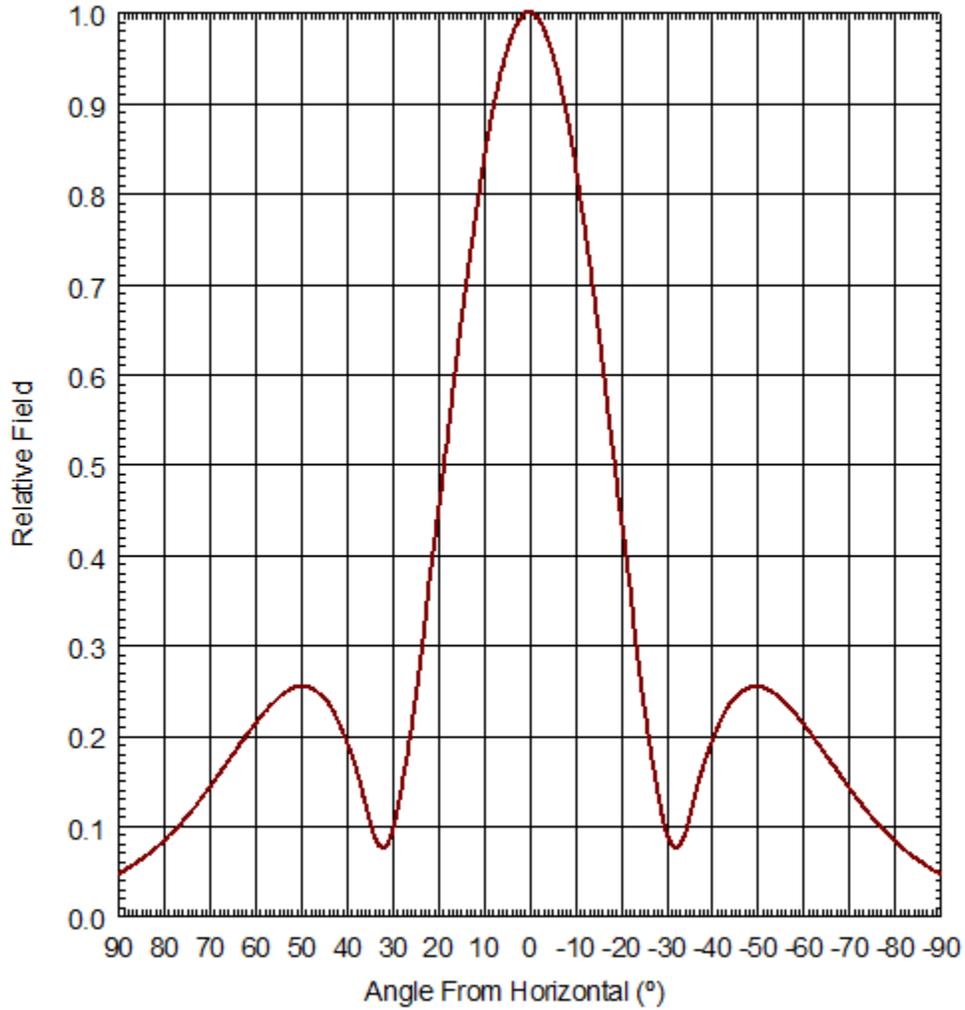
Calculated Relative Field



Harris Pattern No.: 1 PANEL  
Model: TAD-UDA



**Calculated Elevation Pattern**



Harris Model No.: TAD-UDA

Harris Pattern No.: 1PANEL-E

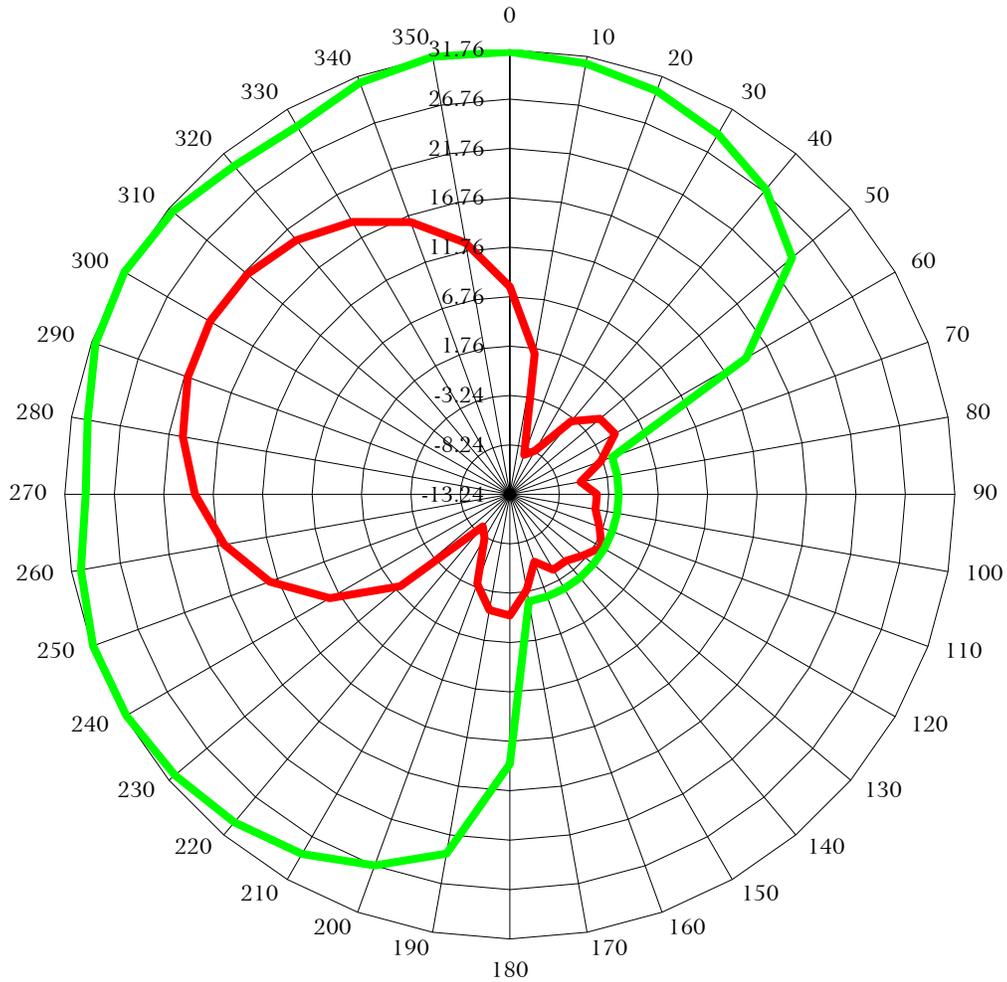
**Azimuth Pattern Tabulation (Pre-Rotated)**

Azimuth in Degs -----	REL. FIELD -----	Rel. dB -----	Azimuth in Degs -----	REL. FIELD -----	Rel. dB -----
0	1.000	0.000	180	0.061	-24.239
10	0.961	-0.350	190	0.054	-25.307
20	0.849	-1.418	200	0.049	-26.221
30	0.695	-3.160	205	0.050	-26.033
40	0.520	-5.679	210	0.049	-26.208
50	0.349	-9.141	220	0.041	-27.650
60	0.200	-13.992	230	0.055	-25.242
70	0.094	-20.493	240	0.073	-22.680
80	0.029	-30.639	245	0.075	-22.546
85	0.029	-30.888	250	0.070	-23.039
90	0.032	-29.990	260	0.054	-25.418
100	0.054	-25.418	270	0.032	-29.990
110	0.070	-23.039	275	0.029	-30.888
115	0.075	-22.546	280	0.029	-30.639
120	0.073	-22.680	290	0.094	-20.493
130	0.055	-25.242	300	0.200	-13.992
140	0.041	-27.650	310	0.349	-9.141
150	0.049	-26.208	320	0.520	-5.679
155	0.050	-26.033	330	0.695	-3.160
160	0.049	-26.221	340	0.849	-1.418
170	0.054	-25.307	350	0.961	-0.350

**Elevation Pattern Tabulation**

ELEVATION -----	REL. FIELD -----	ELEVATION -----	REL. FIELD -----
-90.0	.047	.0	1.000
-80.0	.084	.1	1.000
-70.0	.143	.2	1.000
-60.0	.214	.3	1.000
-50.0	.255	.4	1.000
-49.7	.255	.5	1.000
-40.0	.195	.6	1.000
-32.0	.076	.7	1.000
-30.0	.094	.8	1.000
-20.0	.447	.9	1.000
-10.0	.836	1.0	1.000
-1.0	1.000	10.0	.836
-.9	1.000	20.0	.447
-.8	1.000	30.0	.094
-.7	1.000	32.0	.076
-.6	1.000	40.0	.195
-.5	1.000	50.0	.255
-.4	1.000	60.0	.214
-.3	1.000	70.0	.143
-.2	1.000	80.0	.084
-.1	1.000	90.0	.047

APPENDIX C – ERP IN DBW COMPARRISION



- \* GREEN LINE = PEAK CONSTRUCTION PERMITTED
- \* RED LINE = PEAK SPECIAL TEMPORARY AUTHORITY

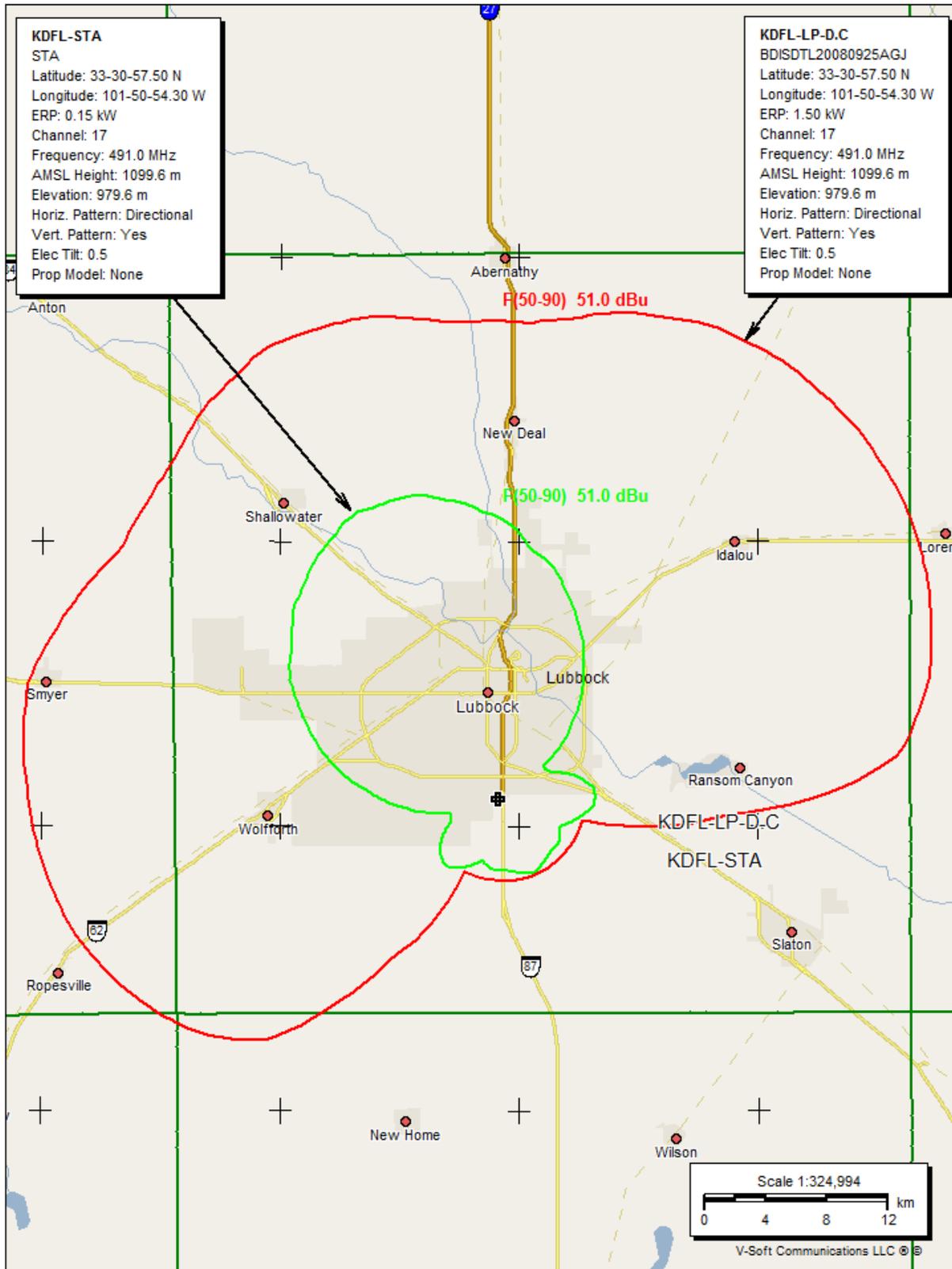
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<b>AZIMUTH</b>	<b>ALLOTTED ERP (DB)</b>	<b>PROPOSED ERP (DB)</b>	<b>Meets ERP Margin BY (DB)</b>
N000°E	31.541	7.782	23.759
N010°E	31.037	1.223	29.813
N020°E	30.195	-8.991	39.186
N030°E	28.847	-8.136	36.983
N040°E	27.029	-3.591	30.621
N050°E	24.017	-1.337	25.354
N060°E	14.368	-0.973	15.340
N070°E	-2.218	-3.432	1.213
N080°E	-2.218	-5.983	3.765
N090°E	-2.218	-4.435	2.217
N100°E	-2.218	-4.435	2.217
N110°E	-2.218	-3.591	1.373
N120°E	-2.218	-2.532	0.314
N130°E	-2.218	-3.591	1.373
N140°E	-2.218	-4.435	2.217
N150°E	-2.218	-4.435	2.217
N160°E	-2.218	-5.983	3.765
N170°E	-2.218	-3.432	1.213
N180°E	14.040	-0.973	15.012
N190°E	23.693	-1.337	25.030
N200°E	26.725	-3.591	30.316
N210°E	28.786	-8.136	36.922
N220°E	30.090	-8.991	39.081
N230°E	30.989	1.223	29.766
N240°E	31.541	7.782	23.759
N250°E	31.612	12.617	18.995
N260°E	30.797	16.081	14.716
N270°E	29.647	18.601	11.047
N280°E	30.111	20.339	9.772
N290°E	31.361	21.415	9.946
N300°E	31.761	21.761	10.000
N310°E	31.270	21.415	9.854
N320°E	30.142	20.339	9.803
N330°E	29.768	18.601	11.168
N340°E	31.084	16.081	15.003
N350°E	31.717	12.617	19.100

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APPENDIX D – 51.0 DBU F(50,90) CP AND STA CONTOURS



## **APPENDIX E – FAR FIELD EXPOSURE TO RF EMISSIONS**

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

## FAR FIELD EXPOSURE TO RF EMISSIONS

