

Rural Life Foundation

Long Form Application for Translator Construction Permit

Channel # 234D, 94.7 MHz

Pulaski, TN

Engineering Statement

Prepared by:
Jerry Mathis

Introduction

Rural Life Foundation, Savannah, TN, is filing an application for a Construction Permit for a new translator in Pulaski, TN.

This engineering statement and application supplies complete engineering and technical data in support of Rural Life Foundation's request. All calculations have been made and determined in accordance with current Rules and Regulations.

Interference Study

A detailed interference study was performed for this application and is shown as Exhibit #1 in this report. Additional studies were done for an application in Hollywood, TN, and WRTT-FM in Huntsville, AL, due to the proximity of their interference contours, and are shown as Exhibits #4 and #5. A detail map of Exhibit #5, showing the area near the proposed translator in an expanded view, is shown as Exhibit #6. These studies show that no prohibited overlap would occur and the proposed facilities would comply with Rule 74.1204.

Elevation and Contour Data

The average elevation of the terrain within 3 to 16 kilometers and the Height Above Average Terrain (HAAT) were calculated using the Vsoft software program. The distance to the contours utilized the translator's proposed ERP of 250 watts. Exhibit #2 shows the proposed 60-dbu contour. Exhibit #3 shows the average elevation and HAAT, as well as the distance to the 60 dbu contour for the 12 radials, in tabulated form.

List of Exhibits

1. Interference Study
2. Map of proposed 60 dBu contour.
3. Tabulation of 12 radials showing average elevation, HAAT, and contour distances.
4. Map showing interference contours of the proposed translator and Application BNPFT20030317FCE in Hollywood, TN
5. Map showing interference contours of the proposed translator and WRTT-FM.
6. Detail map of Exhibit #5.

<div> <div>Pulaski, TN</div> <div>EXHIBIT #1</div> <div> <div>REFERENCE</div> <div>CH# 234D - 94.7 MHz, Pwr= 0.25 kw, HAAT=31.8 M, COR= 248 M</div> <div>35 10 08 N</div> <div>Average Protected F(50-50)= 7.27 km</div> <div>87 03 51 W</div> <div>Ave. F(50-10) 40 dBu= 24.4 54 dBu= 10.4 80 dBu= 2.3 100 dBu= 1.1</div> </div> <div> <div>DISPLAY DATES</div> <div>DATA 05-07-03</div> <div>SEARCH 08-21-03</div> </div> </div>										
CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
234D Pulaski	AP234	APP TN	C 0.0 180.0	0.00 BNPFT20030310BLO	35 10 08 87 03 51	0.250 -2	-2 23.8	7.1 Rural Life Foundation, Inc	-30.85*	-30.85*
234D Hollywood	AP234	APP TN	C 5.7 185.7	35.15 BNPFT20030317FCE	35 29 03 87 01 33	0.010 110	110 23.8	6.2 Middle Tennessee State Uni	7.72	5.24
234D Columbia	AP234	APP TN	C 4.7 184.7	45.64 BNPFT20030310BLP	35 34 44 87 01 23	0.250 -44	-44 23.8	7.1 Rural Life Foundation, Inc	14.79	14.79
234D Moore's Mill	AP234	APP AL	C 130.6 310.6	57.85 BNPFT20030317CTD	34 49 47 86 34 58	0.038 27	27 29.7	4.4 Radio Assist Ministry, Inc	34.91	23.81
234D Trinity	W234AD	LIC AL	CN 182.6 2.6	65.30 BLFT19940404TA	34 34 51 87 05 47	0.130 141	141 23.8	13.0 William P. Rogers	14.63	28.56
236C2 Huntsville	WRTTFM	LIC AL	ZC 136.7 316.7	56.50 BLH20000522AAT	34 47 53 86 38 24	12.000 262	262 1.1	49.1 Bca Radio, Llc	41.37	6.27
236C2 Huntsville	ALLO	USE AL	39.1 219.1	40.43 RM	34 42 56 86 35 55	50.000 -230	-230 1.1	26.5	53.03	38.24
232A Lewisburg	ALLO	USE TN	39.1 219.1	40.43 RM	35 27 03 86 46 57	6.000 -293	-293 1.1	15.8	31.77	23.57
232A Lewisburg	WJJMFM	LIC TN	C 39.1 219.1	40.43 BMLH20001121AFA	35 27 03 86 46 57	5.500 -13	-13 1.1	15.4 Martha M. Lingner, Executr	31.81	23.94
235C3 Collinwood	WMSRFM	LIC TN	ZC 256.9 76.9	67.55 BLH19990226KB	35 01 46 87 47 07	5.668 179	179 10.1	36.6 Ohio Broadcast Associates	6.12	20.80
235C3 Collinwood	ALLO	USE TN	267.4 87.4	69.74	35 08 16 87 49 43	25.000 -281	-281 10.1	22.7	27.06	36.92
287D Lawrenceburg	W287AA	LIC TN	CN 279.6 99.6	24.32 BLFT19950817TB	35 12 18 87 19 39	0.049 119	119 7.1	9.4 Way-fm Media Group, Inc.	3.2R	21.1M
287D Lawrenceburg	W287AA	CP TN	C 292.1 112.1	25.60 BPFT20011019AAK	35 15 18 87 19 30	0.038 78	78 7.1	7.1 Way-fm Media Group, Inc.	3.2R	22.4M
231A Meridianville	ALLO	USE AL	124.9 304.9	53.41	34 53 36 86 35 03	6.000 -253	-253 1.1	15.8	43.94	36.55

233C2 WFGZ Lobelville	LIC TN	NCN	313.9 133.9	96.03 BLH19940208KA	35 45 56 87 49 50	22.000 220	220 10.1	51.6 Ohio Broadcast Associates	12.86	34.33
288A WYTMFM Fayetteville	LIC TN	CN	95.9 275.9	44.39 BLH4751	35 07 37 86 34 47	3.000 130	130 7.1	27.1 Time Broadcasters, Inc.	10.0R	34.4M
288A ALLO Fayetteville	USE TN		95.9 275.9	44.39 RM9497	35 07 37 86 34 47	6.000 -208	-208 7.1	15.8	10.0R	34.4M
233C2 ALLO Lobelville	USE TN		312.9 132.9	99.04	35 46 21 87 52 05	50.000 -183	-183 10.1	26.5	46.63	62.38
235D AP235 Chestnut Ridge	APP TN	C	66.9 246.9	53.23 BNPFT20030317FCH	35 21 18 86 31 30	0.010 122	122 10.1	6.5 Middle Tennessee State Uni	37.08	36.63
234C WGSQ« Cookeville	LIC TN	CN	53.8 233.8	191.57 BLH19900329KA	36 10 26 85 20 37	100.000 481	481 23.8	85.6 Clear Channel Broadcasting	-4.89	82.23
231A RDEL Meridianville	DEL AL		134.5 314.5	68.16	34 44 16 86 31 57	6.000 -243	-243 1.1	15.8	56.78	51.30
231A WXQW Meridianville	LIC AL	ZCN	134.5 314.5	68.16 BLH19950602KC	34 44 16 86 31 57	0.410 339	339 1.1	26.9 Capstar Tx Limited Partner	56.93	40.13
234C ALLO Cookeville	USE TN		52.2 232.2	193.21	36 13 15 85 21 47	100.000 -365	-365 23.8	31.0	55.42	138.48
231A RADD Gurley	ADD AL		133.0 313.0	69.55	34 44 29 86 30 26	6.000 -265	-265 1.1	15.8	58.52	52.69
234D AP234 Nashville	APP TN	DV	9.4 189.4	109.33 BNPFT20030312BBT	36 08 27 86 51 56	0.119 224	224 23.8	16.1 wycq, Inc.	49.88	69.46

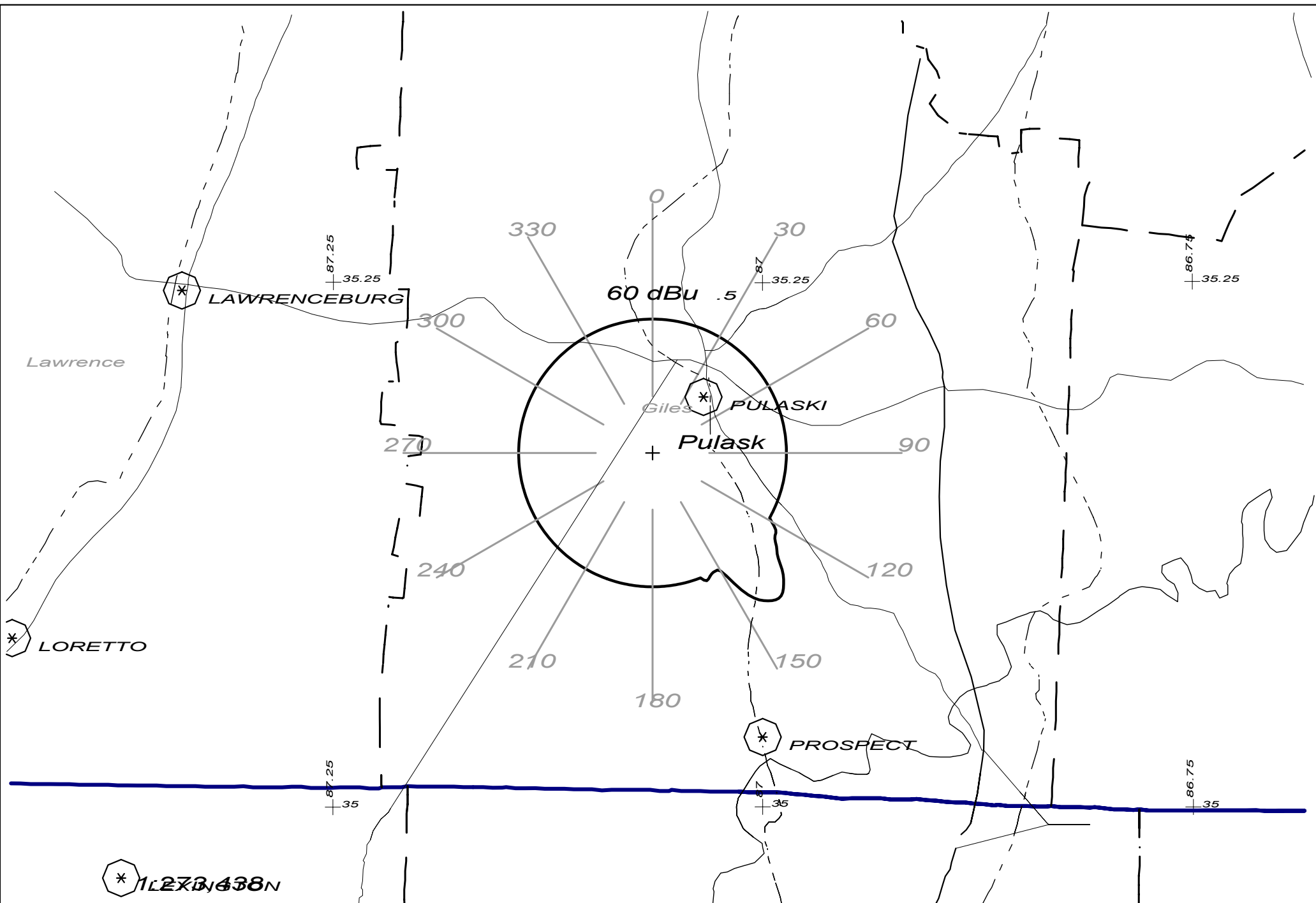
CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kw) HAAT(M)	COR(M) INT(km)	PRO(km) LICENSEE	*IN* (Overlap	*OUT* in km)
234D Nashville	AP234	APP DV TN	9.4 189.4	109.33 BNPFT20030314BRM	36 08 27 86 51 56	0.119 224	224 23.8	16.1 wycq, Inc.	49.88	69.46
237D Killen	W237AQ	LIC HN AL	232.4 52.4	56.75 BLFT19920107TB	34 51 25 87 33 25	0.015 79	79 1.1	5.7 William P. Rogers	49.39	49.94
232D Decatur	W232AO	LIC CN AL	173.8 353.8	62.11 BLFT19950718TZ	34 36 44 86 59 28	0.120 28	28 1.1	5.9 Porter L. Batts	54.25	55.10
235D Shelbyville	AP235	APP C TN	56.6 236.6	69.84 BNPFT20030312BBY	35 30 44 86 25 13	0.250 175	175 10.1	17.4 wycq, Inc.	36.84	42.30
232D Florence	W232AH	LIC DHN AL	231.7 51.7	70.60 BLFT19980402TG	34 46 27 87 40 14	0.000 59	59 1.1	1.7 Slatton & Associates	63.48	67.75 B/cst
235D Franklin	AP235	APP C TN	10.4 190.4	82.19 BNPFT20030317ICV	35 53 50 86 53 54	0.010 108	108 10.1	6.1 Educational Media Foundati	66.58	65.96
235D Centerville	AP235	APP C TN	335.3 155.3	82.86 BNPFT20030317MSP	35 50 46 87 26 57	0.019 90	90 10.1	6.5 Radio Assist Ministry, Inc	66.65	66.26
288A Muscle Shoals	WVNAFM	APP CX AL	227.3 47.3	81.03 BPH20020927ABI	34 40 24 87 42 56	5.100 137	137 7.1	31.3 Clear Channel Broadcasting	10.0R	71.0M
288A Muscle Shoals	ALLO	USE AL	227.3 47.3	81.03 RM9414	34 40 24 87 42 56	6.000 -152	-152 7.1	15.8	10.0R	71.0M
288A Muscle Shoals	WVNAFM	LIC CN AL	227.3 47.3	81.03 BLH19961004KB	34 40 24 87 42 56	1.050 254	254 7.1	29.1 Clear Channel Broadcasting	10.0R	71.0M

 "*"Affixed to 'IN' or 'Out' values = site inside protected contour.

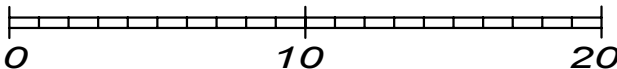
ERP and HAAT are on direct line to and from reference station.

"«" = Station meets FCC minimum distance spacing for its class.

Exhibit #2



Scale in km



Pulask 234D .25kW 248.1M AMSL
N. Lat. 35 10 08 W. Lng. 87 03 51

Pulask
- 08/03

TERRAIN AND CONTOUR DATA

New Translator
Pulaski, TN

Exhibit #3

ERP = .25 kW
FM – 2-6 Tables 30 Sec

Azimuth Deg T.	Ave. Elev. 3 to 16 km Meters AMSL	Effective Antenna Height Meters AAT	ERP (dBk)	F(50-50) Distance to 60 dBu Contour km
0	228.0	20.1	-6.021	7.1
30	254.0	-5.9	-6.021	7.1
60	254.3	-6.2	-6.021	7.1
90	238.5	9.6	-6.021	7.1
120	216.5	31.6	-6.021	7.3
150	216.4	31.7	-6.021	7.3
180	250.4	-2.3	-6.021	7.1
210	264.6	-16.5	-6.021	7.1
240	279.9	-31.8	-6.021	7.1
270	276.5	-28.4	-6.021	7.1
300	245.6	2.5	-6.021	7.1
330	224.2	23.9	-6.021	7.1

Ave. = 245.7 M

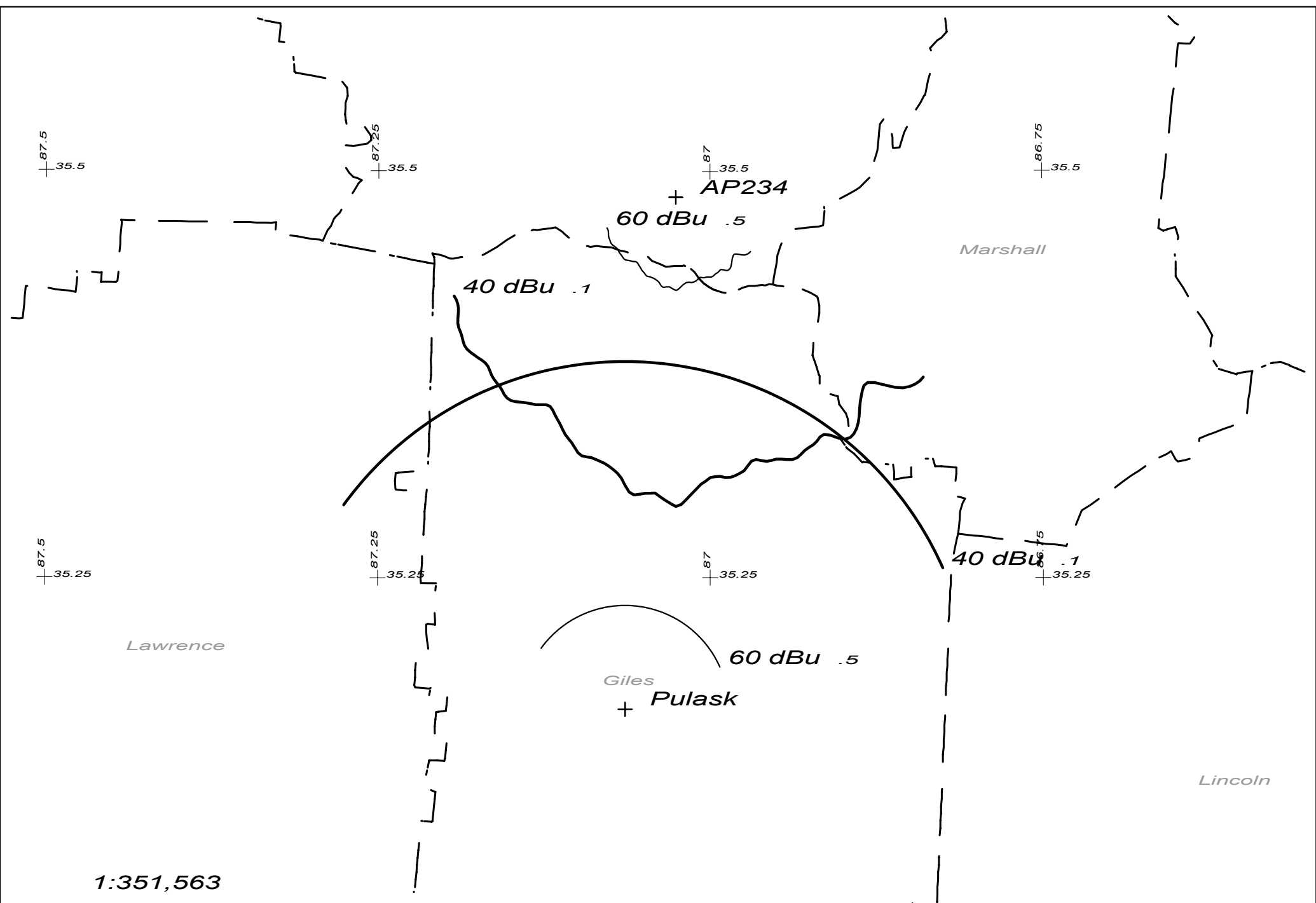
2.4 M

Antenna Radiation Center AMSL = 248.1 M

Geographic Coordinates:

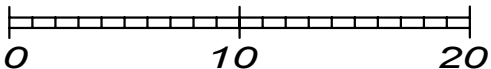
North Latitude: 35 10 08
West Longitude: 87 03 51

Exhibit #4



1:351,563

Scale in km



Pulask 234D .25kW 248.1M AMSL
AP234 234D .01kW 373M AMSL

Pulask vs AP234
- 08/03

Exhibit #6

Giles 1 BylaBk

60 dBu

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