

DELAWDER COMMUNICATIONS, INC.
P.O. Box 1095, Ashburn, Virginia 20146-1095
(703) 299-9222

Engineering Showing for KMCU(FM), Wichita Falls, TX, 204A, IBOC DAB Power Increase

ENGINEERING STATEMENT

1. This Engineering Statement supports a FM Digital ERP increase to **-10 dBc** for the FM in-band on-channel (“IBOC”) Digital Audio Broadcasting (“DAB”) Service of KMCU(FM), Wichita Falls, TX (Licensed on channel 204A).

2. The FCC’s “*In the Matter of Digital Audio Broadcasting Systems And Their Impact on the Terrestrial Radio Broadcast Service*” Order (MM Docket No. 99-325, Released January 29, 2010) allows for an informal request supporting an IBOC DAB power level above -14 dBc with a showing that all nearby first-adjacent FM facilities are protected at the higher IBOC DAB power level. Specifically, the **-10 dBc** IBOC DAB power level is permitted if a **49.5 dBu** or less F50,10 field strength of the proponent station (in this case, KMCU) exists to all points on the 60 dBu F50,50 contour of each nearby protected first adjacent-channel facility. (See paragraph 20 of *Order*.)

3. The following are the only pertinent first adjacent-channel facilities that can potentially restrict the IBOC DAB of KMCU:

KMQX(FM), Weatherford, TX, CP, 203C1 (BPED-20101006AAL)
(There is also a KMQX 203A licensed facility that is too far away to be a concern.)

New(FM), Oscar, OK, CP, 205A (BNPED-20071022ACW)

KARU(FM), Cache, OK, Lic, 205A (BLED-20050721ABL).

Figure 1, attached, is a map demonstrating that the KMCU **49.5** dBu F50,10 contour does not overlap¹ with the 60 dBu F50,50 contour of any of the above first adjacent-channel FM facilities. Figures 2A through 2D are tabulations of the KMCU 49.5 dBu F50,10 contour and the 60 dBu F50,50 contour of each of the above-listed first adjacent-channel facilities.² Since no contour overlap exists, an IBOC DAB power level of **-10** dBc is allowed for KMCU(FM).

¹ A showing of non-contour overlap demonstrates that the proponent station’s F50,10 field strength is less than **49.5** dBu at all points on the 60 dBu F50,50 contour of each protected station.

² Each contour tabulation uses a radial increment of 10 degrees; however, each contour shown on attached map (Figure 1) is determined using a one-degree increment. All contours were determined pursuant to 47 CFR Section 73.313 using three arc-second USGS terrain data and four-thirds effective earth curvature.

DELAWDER COMMUNICATIONS, INC.
P.O. Box 1095, Ashburn, Virginia 20146-1095
(703) 299-9222

Engineering Showing for KMCU(FM), Wichita Falls, TX, 204A, IBOC DAB Power Increase

I, Darryl K. DeLawder, declare and state as follows:

That I have received a Bachelor of Science degree in electrical engineering from Villanova University;

That I have either prepared or directly supervised the preparation of all technical information contained in this Engineering Statement;

That the facts stated in this Statement are true of my own knowledge, except as to such statements as are herein stated to be on information and belief, and as to such statements I believe them to be true.

1-27-2011

Date



Darryl K. DeLawder

**FIGURE 1: KMCU (FM), Wichita Falls, TX, Licensed 204A—Contour Map
Supporting ERP Increase of IBOC DAB TO -10 dBc**

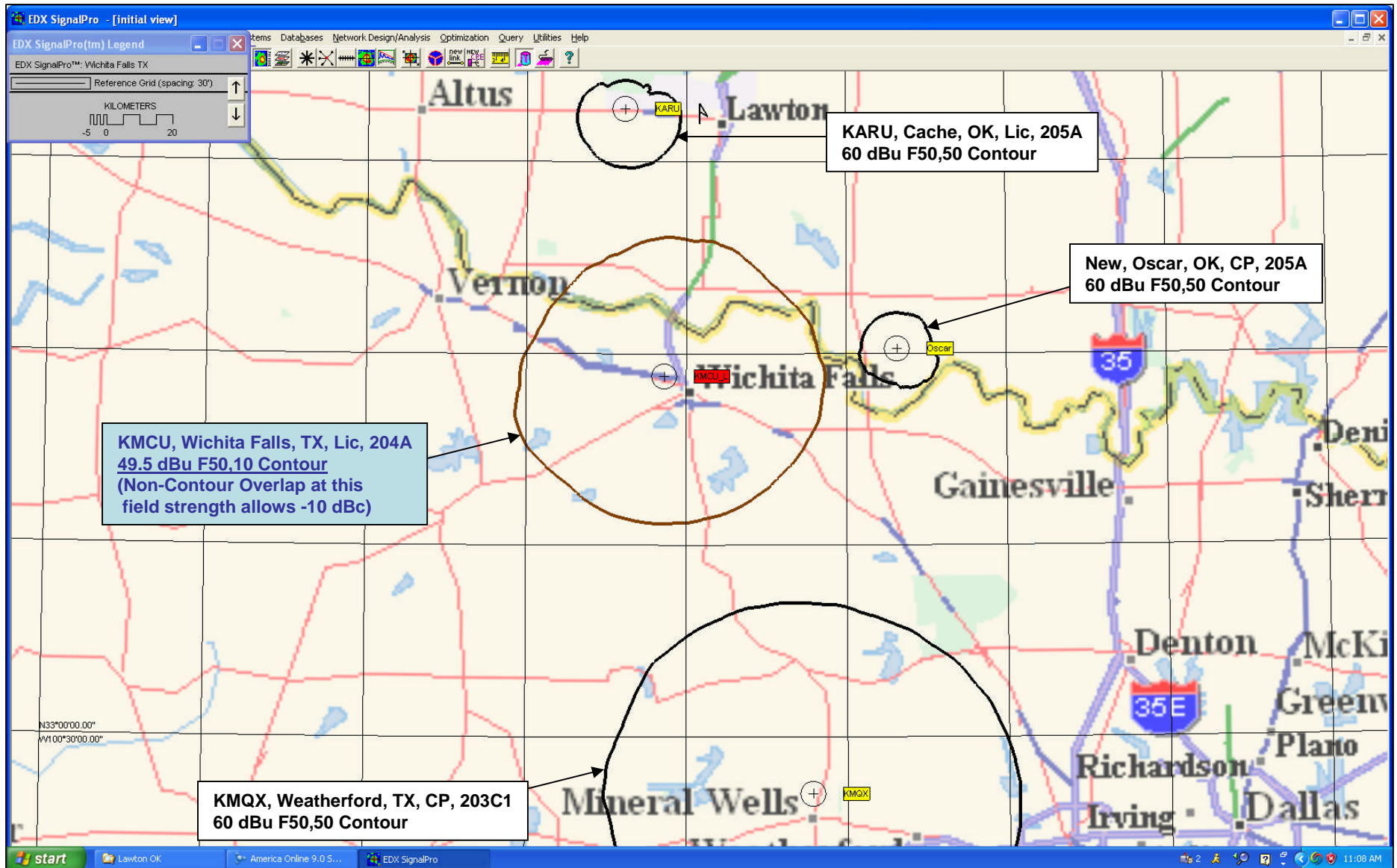


FIGURE 2A

KCCU(FM), LAWTON, OK, 207A, LIC -- Section 73.313 Contour Determination

DISTANCES TO CONTOURS (Kilometers):

Antenna COR elevation (AMSL): 381 mtrs Average HAAT: 77 mtrs

Frequency: 88.7000 MHz

Coordinates: N 33 56 30.00 W 98 34 6.00

F(50,10) Curves Number of Contours: 1

AZ (deg)	HAAT (m)	ERPd (kW)	CONTOUR LEVELS (dBu): 49.5
0.0	70	3.0000	40.1
10.0	69	3.0000	40.0
20.0	74	3.0000	41.4
30.0	75	3.0000	41.5
40.0	72	3.0000	40.8
50.0	73	3.0000	40.9
60.0	79	3.0000	42.5
70.0	87	3.0000	44.5
80.0	87	3.0000	44.7
90.0	94	3.0000	46.3
100.0	92	3.0000	45.9
110.0	92	3.0000	45.7
120.0	89	3.0000	45.1
130.0	85	3.0000	44.2
140.0	84	3.0000	43.9
150.0	84	3.0000	43.8
160.0	82	3.0000	43.3
170.0	81	3.0000	43.1
180.0	80	3.0000	42.8
190.0	80	3.0000	42.9
200.0	80	3.0000	43.0
210.0	79	3.0000	42.7
220.0	77	3.0000	42.0
230.0	80	3.0000	42.8
240.0	85	3.0000	44.2
250.0	87	3.0000	44.6
260.0	82	3.0000	43.4
270.0	76	3.0000	41.7
280.0	71	3.0000	40.5
290.0	65	3.0000	38.8
300.0	64	3.0000	38.5
310.0	62	3.0000	37.8
320.0	63	3.0000	38.1
330.0	61	3.0000	37.7
340.0	62	3.0000	37.8
350.0	67	3.0000	39.2

FIGURE 2B

KMQX(FM), WEATHERFORD, TX, 203C1, CP -- Section 73.313 Contour Determination

DISTANCES TO CONTOURS (Kilometers):

Antenna COR elevation (AMSL): 455 mtrs Average HAAT: 158 mtrs

Frequency: 88.5000 MHz

Coordinates: N 32 51 5.00 W 98 6 31.00

F(50,50) Curves Number of Contours: 1

AZ (degs)	HAAT (m)	ERPd (kW)	CONTOUR LEVELS (dBu): 60.0
0.0	127	100.0000	55.2
10.0	126	100.0000	55.1
20.0	122	100.0000	54.5
30.0	126	100.0000	55.1
40.0	128	100.0000	55.4
50.0	137	100.0000	56.6
60.0	142	100.0000	57.4
70.0	147	100.0000	58.0
80.0	155	100.0000	59.1
90.0	160	100.0000	59.8
100.0	166	100.0000	60.4
110.0	170	100.0000	60.9
120.0	176	100.0000	61.5
130.0	185	100.0000	62.4
140.0	193	100.0000	63.1
150.0	194	100.0000	63.2
160.0	188	100.0000	62.6
170.0	175	100.0000	61.4
180.0	169	100.0000	60.8
190.0	175	100.0000	61.4
200.0	182	100.0000	62.0
210.0	188	100.0000	62.7
220.0	175	100.0000	61.4
230.0	174	100.0000	61.3
240.0	154	100.0000	58.9
250.0	154	100.0000	58.9
260.0	154	100.0000	58.9
270.0	166	100.0000	60.4
280.0	161	100.0000	59.8
290.0	149	100.0000	58.3
300.0	153	100.0000	58.8
310.0	159	100.0000	59.6
320.0	150	100.0000	58.4
330.0	143	100.0000	57.5
340.0	140	100.0000	57.1
350.0	133	100.0000	56.1

FIGURE 2C

NEW(FM), OSCAR, OK, 205A, CP -- Section 73.313 Contour Determination

DISTANCES TO CONTOURS (Kilometers):

Antenna COR elevation (AMSL): 298 mtrs Average HAAT: 32 mtrs

Frequency: 88.9000 MHz

Coordinates: N 34 0 50.00 W 97 50 36.00

F(50,50) Curves Number of Contours: 1

AZ (deg)	HAAT (m)	ERPd (kW)	CONTOUR LEVELS (dBu): 60.0
0.0	26	1.0000	10.2
10.0	28	1.0000	10.2
20.0	32	1.0000	10.5
30.0	34	1.0000	10.8
40.0	36	1.0000	11.0
50.0	34	1.0000	10.7
60.0	28	1.0000	10.2
70.0	24	1.0000	10.2
80.0	27	1.0000	10.2
90.0	32	1.0000	10.4
100.0	39	1.0000	11.4
110.0	47	1.0000	12.6
120.0	48	1.0000	12.7
130.0	51	1.0000	13.1
140.0	47	1.0000	12.6
150.0	46	1.0000	12.5
160.0	43	1.0000	12.1
170.0	39	1.0000	11.5
180.0	32	1.0000	10.4
190.0	26	1.0000	10.2
200.0	22	1.0000	10.2
210.0	19	1.0000	10.2
220.0	27	1.0000	10.2
230.0	36	1.0000	11.1
240.0	34	1.0000	10.8
250.0	36	1.0000	11.1
260.0	35	1.0000	10.9
270.0	31	1.0000	10.2
280.0	24	1.0000	10.2
290.0	28	1.0000	10.2
300.0	24	1.0000	10.2
310.0	24	1.0000	10.2
320.0	20	1.0000	10.2
330.0	17	1.0000	10.2
340.0	20	1.0000	10.2
350.0	26	1.0000	10.2

FIGURE 2D

KARU(FM), CACHE, OK, 205A, LIC -- Section 73.313 Contour Determination

DISTANCES TO CONTOURS (Kilometers):

Antenna COR elevation (AMSL): 493 mtrs Average HAAT: 75 mtrs

Frequency: 88.9000 MHz

Coordinates: N 34 38 10.00 W 98 41 32.00

F(50,50) Curves Number of Contours: 1

AZ (deg)	HAAT (m)	ERPd (kW)	CONTOUR LEVELS (dBu): 60.0
0.0	-9	0.4400	8.3
10.0	-14	0.4400	8.3
20.0	-7	0.4400	8.3
30.0	15	0.4400	8.3
40.0	36	0.4400	9.0
50.0	37	0.4400	9.1
60.0	37	0.4400	9.2
70.0	73	0.4400	12.7
80.0	94	0.4400	14.4
90.0	110	0.4400	15.7
100.0	116	0.4400	16.1
110.0	122	0.4400	16.6
120.0	126	0.4400	16.9
130.0	128	0.4400	17.0
140.0	129	0.4400	17.1
150.0	132	0.4400	17.3
160.0	129	0.4400	17.1
170.0	130	0.4400	17.1
180.0	126	0.4400	16.8
190.0	124	0.4400	16.7
200.0	120	0.4400	16.4
210.0	115	0.4400	16.0
220.0	106	0.4400	15.3
230.0	102	0.4400	15.0
240.0	99	0.4400	14.8
250.0	94	0.4400	14.4
260.0	90	0.4400	14.0
270.0	83	0.4400	13.5
280.0	76	0.4400	12.9
290.0	69	0.4400	12.4
300.0	57	0.4400	11.4
310.0	51	0.4400	10.8
320.0	38	0.4400	9.2
330.0	-1	0.4400	8.3
340.0	-16	0.4400	8.3
350.0	-18	0.4400	8.3