

**KMOO-FM CONTINGENT MINOR CHANGE
APPLICATION PROVIDING SITE SPECIFICATION
REQUIRED FOR VAN ALSTYNE, TX SITE SPECIFICATION,
TISHOMINGO, OK 259C3 SITE SPECIFICATION AND
CONTINGENT AMENDMENT TO
KNID APPLICATION BMPH-20070119AHJ**

A. KMOO-FM application

This technical report has been developed in support of an application for minor changes including the use of a directional antenna and a site specification that accommodates the concurrent site specification to the Van Alstyne, TX 260A vacant allotment. This application is filed contingent with the KNID-FM application to change city of license to Mustang, OK on channel 259C2 at an existing tower.

B. KMOO-FM Allocation analysis

All terrain data utilized in this report were obtained from the V-Soft NGDC thirty (30) second terrain database. All contours and allocation exhibits were developed using V-Soft FMCommander and Probe 3 computer programs. A tabulation of average terrain on the eight (8) equally spaced radials is included as Exhibit E3.

The KMOO-FM application is the licensed site at:

N 32-45-04 W 95-33-18 (NAD 27).

A channel study is provided as E1, an interference plot and FMOVER to the site specified Van Alstyne allocation as E1A and E1B. E2 demonstrates coverage to the city of license - Mineola, TX. Terrain and contours are tabulated in E3.

The allocation point provided as a site specification is:

N 32-43-27 W 95-32-42 (NAD27).

A channel study is provided as E4A, and a plot of 70 dBu coverage as E4B.

C. Van Alstyne site specification

The KMOO-FM site specification and directional antenna in turn provides for the Van Alstyne, TX 260A site specification to:

N 33-24-51 W 96-28-05.

E5A and E5B demonstrate spacing clearance and 70 dBu coverage to Van Alstyne.

D. Antenna System and RF Calculations

KMOO-FM will utilize an ERI or equivalent three bay full wavelength spaced circularly polarized antenna mounted on the existing tower (ASR#1052051) at 73 meters AGL. The maximum RF contribution was calculated to be 8.3 microwatts/cm² utilizing the Commission's FMMODEL program. This level is 4.15% of the general public maximum exposure level of 200 microwatts/cm². Clearly, the RF radiation level is well within the maximum limit for general public exposure.

E. Conclusion

It is concluded that the proposed KMOO-FM modifications are in full compliance with Commission rules and policies.



**Charles M. Anderson March 12, 2008
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Bowling Green, KY 42103
270-782-0246**

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E1 KMOO-FM APPLICATION CHANNEL STUDY

REFERENCE		CLASS = A	DISPLAY DATES
32 45 04.0 N.			DATA 03-11-08
95 33 18.0 W.	Current	Spacings to 3rd Adj.	SEARCH 03-11-08
----- Channel 260 - 99.9 MHz -----			

Call		Channel	Location		Azi	Dist	FCC	Margin
KMOO-FM	LIC	260A	Mineola	TX	0.0	0.00	114.5	-114.50
AL3045	VAC	260A	Van Alstyne	TX	311.2	112.58	114.5	-1.92 (1)

(1) 73.215 elected to Van Alstyne allocation site specified at
N 33-24-51 W 96-28-05.

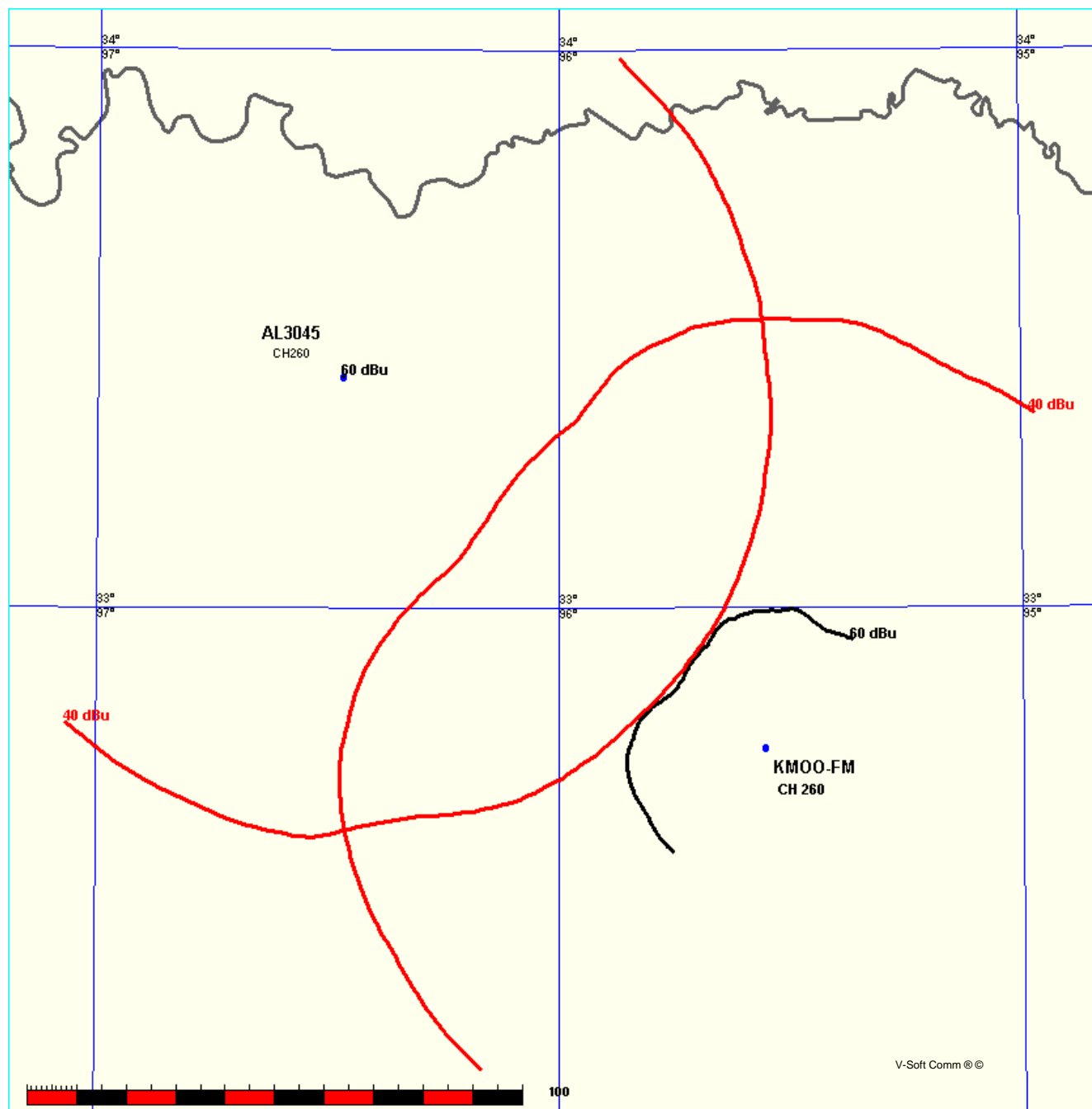
KAJK	LIC-N	257C2	White Oak	TX	108.5	56.76	54.5	2.26
WACO-FM	LIC-N	260C	Waco	TX	226.9	228.15	225.5	2.65
NEW	CP	259A	Sulphur Bluff	TX	15.1	81.25	71.5	9.75
AP7454	APP	259A	Sulphur Bluff	TX	15.1	81.25	71.5	9.75
AL9118	VAC	259A	Cuney	TX	168.7	87.07	71.5	15.57
KJKK	LIC	262C	Dallas	TX	262.4	133.40	94.5	38.90
KPLX	LIC	258C	Fort Worth	TX	262.3	134.57	94.5	40.07
KNRB	LIC	261C2	Atlanta	TX	67.3	148.06	105.5	42.56
KTCS-FM	LIC	260C	Fort Smith	AR	17.1	269.85	225.5	44.35
KYBI	LIC	261C2	Lufkin	TX	153.3	166.59	105.5	61.09
KMJJ-FM	LIC	259C2	Shreveport	LA	95.0	167.86	105.5	62.36
KYFP	LIC-D	206C1	Palestine	TX	190.5	84.33	21.5	62.83
KMJJ-FM	CP -N	259C2	Shreveport	LA	99.2	170.38	105.5	64.88
KXAL-FM	LIC	262A	Tatum	TX	114.0	101.24	30.5	70.74
KYBI	CP	261C2	Lufkin	TX	151.8	177.93	105.5	72.43
AL7135	VAC	263A	Annona	TX	26.6	103.20	30.5	72.70
NEW	CP	206A	Harts Bluff	TX	42.9	97.23	9.5	87.73
DKTSH	VAC	259C3	Tishomingo	OK	326.1	192.86	88.5	104.36

E1A KMOO-FM VS. VAN ALYSTYNE 260A ALLOCATION WITH SITE SPECIFICATION

FMCommander Single Allocation Study
03-11-2008

KMOO-FM CH 260 A
6.0 kW 213 M COR DA
Prot. = 60 dBu
Intef. = 40 dBu

AL3045 CH 260 A RM9476
6.0 kW, 309.9 M COR
Prot. = 60 dBu
Intef. = 40 dBu



E1B KMOO-FM - VAN ALSTYNE 260A FMOVER

03-11-2008 NGDC 30 SEC Terrain Data FMOVER Analysis

KMOO-FM
Channel = 260A
Max ERP = 6 kW
RCAMSL = 213 M
N. Lat. 32 45 04.0
W. Lng. 95 33 18.0
Protected
60 dBu

AL3045 RM9476
Channel = 260A
Max ERP = 6 kW
RCAMSL = 309.93 M
N. Lat. 33 24 51.0
W. Lng. 96 28 05.0
Interfering
40 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)
268.0	006.0000	0096.2	027.8	142.3	006.0000	0124.8	094.2	39.02
269.0	006.0000	0095.0	027.6	142.0	006.0000	0124.6	093.9	39.10
270.0	006.0000	0094.2	027.5	141.8	006.0000	0124.4	093.6	39.17
271.0	005.9163	0093.5	027.3	141.5	006.0000	0124.2	093.3	39.23
272.0	005.8332	0092.9	027.1	141.3	006.0000	0123.9	093.1	39.29
273.0	005.7506	0092.2	027.0	141.0	006.0000	0123.7	092.8	39.35
274.0	005.6687	0091.9	026.8	140.7	006.0000	0123.4	092.6	39.41
275.0	005.5874	0091.9	026.8	140.5	006.0000	0123.2	092.3	39.47
276.0	005.5066	0091.9	026.7	140.3	006.0000	0123.0	092.0	39.54
277.0	005.4264	0091.8	026.6	140.0	006.0000	0122.7	091.8	39.60
278.0	005.3468	0091.5	026.4	139.7	006.0000	0122.5	091.5	39.65
279.0	005.2678	0091.2	026.3	139.5	006.0000	0122.3	091.3	39.70
280.0	005.1894	0090.8	026.2	139.2	006.0000	0122.1	091.2	39.74
281.0	005.0784	0090.4	026.0	138.9	006.0000	0122.0	091.0	39.77
282.0	004.9686	0089.9	025.8	138.6	006.0000	0121.9	090.9	39.80
283.0	004.8600	0089.4	025.6	138.3	006.0000	0121.8	090.8	39.83
284.0	004.7526	0088.8	025.4	138.0	006.0000	0121.7	090.7	39.85
285.0	004.6464	0088.0	025.1	137.7	006.0000	0121.7	090.7	39.86
286.0	004.5414	0087.2	024.9	137.4	006.0000	0121.7	090.6	39.87
287.0	004.4376	0086.5	024.7	137.1	006.0000	0121.6	090.6	39.87
288.0	004.3350	0085.8	024.5	136.8	006.0000	0121.6	090.6	39.88
289.0	004.2336	0085.2	024.3	136.5	006.0000	0121.6	090.6	39.88
290.0	004.1334	0084.5	024.0	136.2	006.0000	0121.6	090.6	39.88
291.0	004.0442	0083.5	023.8	135.8	006.0000	0121.6	090.6	39.87
292.0	003.9561	0082.4	023.5	135.5	006.0000	0121.6	090.7	39.84
293.0	003.8689	0081.3	023.2	135.2	006.0000	0121.5	090.8	39.82
294.0	003.7826	0080.3	023.0	134.9	006.0000	0121.5	090.9	39.79
295.0	003.6973	0079.4	022.7	134.7	006.0000	0121.4	090.9	39.77
296.0	003.6131	0078.7	022.5	134.4	006.0000	0121.4	091.0	39.74
297.0	003.5297	0077.9	022.3	134.1	006.0000	0121.4	091.1	39.71
298.0	003.4474	0077.2	022.1	133.8	006.0000	0121.3	091.2	39.69
299.0	003.3660	0076.6	021.9	133.6	006.0000	0121.3	091.3	39.66
300.0	003.2856	0075.9	021.7	133.3	006.0000	0121.2	091.4	39.62
301.0	003.2856	0075.2	021.6	133.0	006.0000	0121.2	091.5	39.62
302.0	003.2856	0074.6	021.5	132.8	006.0000	0121.1	091.5	39.61
303.0	003.2856	0074.3	021.4	132.6	006.0000	0121.0	091.4	39.62
304.0	003.2856	0074.3	021.4	132.3	006.0000	0121.0	091.4	39.63

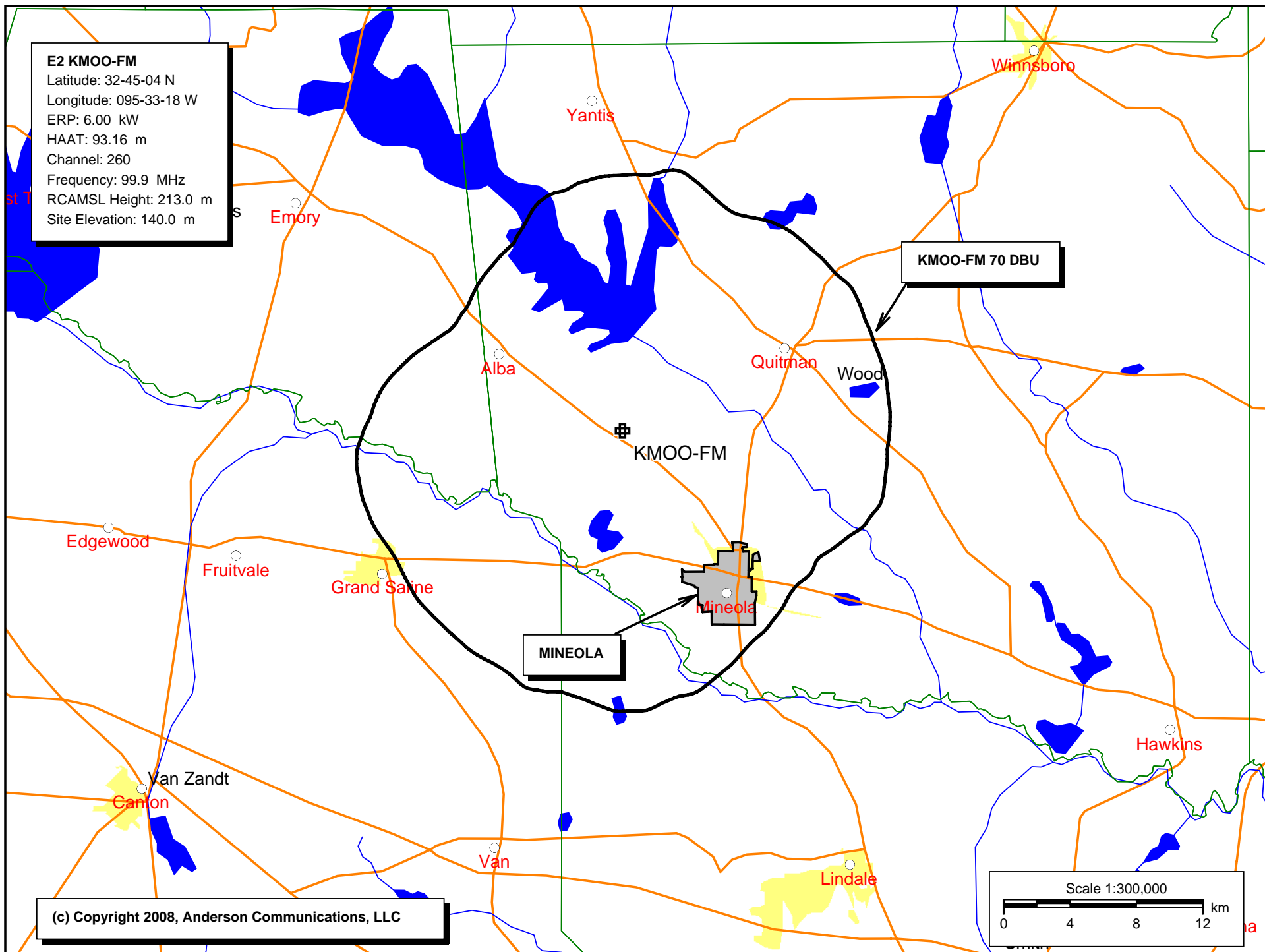
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305.0	003.2856	0074.5	021.5	132.1	006.0000	0120.9	091.3	39.65
306.0	003.2856	0074.7	021.5	131.9	006.0000	0120.8	091.2	39.67
307.0	003.2856	0074.6	021.5	131.6	006.0000	0120.7	091.2	39.67
308.0	003.2856	0074.6	021.5	131.4	006.0000	0120.6	091.2	39.67
309.0	003.2856	0074.9	021.5	131.2	006.0000	0120.5	091.1	39.69
310.0	003.2856	0075.6	021.6	130.9	006.0000	0120.4	091.0	39.71
311.0	003.2856	0076.6	021.7	130.7	006.0000	0120.3	090.9	39.74
312.0	003.2856	0077.5	021.9	130.5	006.0000	0120.2	090.7	39.77
313.0	003.2856	0078.4	022.0	130.2	006.0000	0120.1	090.6	39.80
314.0	003.2856	0079.3	022.1	130.0	006.0000	0120.0	090.5	39.82
315.0	003.2856	0080.1	022.2	129.7	006.0000	0119.9	090.5	39.84
316.0	003.2856	0080.9	022.3	129.5	006.0000	0119.8	090.4	39.85
317.0	003.2856	0081.7	022.4	129.2	006.0000	0119.7	090.3	39.86
318.0	003.2856	0082.4	022.5	129.0	006.0000	0119.6	090.3	39.87
319.0	003.2856	0083.0	022.6	128.7	006.0000	0119.4	090.3	39.87
320.0	003.2856	0083.5	022.7	128.5	006.0000	0119.3	090.3	39.86
321.0	003.2856	0084.0	022.7	128.2	006.0000	0119.2	090.3	39.85
322.0	003.2856	0084.6	022.8	127.9	006.0000	0119.1	090.3	39.84
323.0	003.2856	0085.4	022.9	127.7	006.0000	0119.0	090.3	39.84
324.0	003.2856	0086.2	023.0	127.4	006.0000	0119.0	090.3	39.83
325.0	003.2856	0086.9	023.1	127.2	006.0000	0118.9	090.4	39.82
326.0	003.2856	0087.5	023.2	126.9	006.0000	0118.9	090.4	39.81
327.0	003.2856	0088.2	023.3	126.6	006.0000	0118.8	090.5	39.79
328.0	003.2856	0088.8	023.4	126.4	006.0000	0118.8	090.5	39.77
329.0	003.2856	0089.5	023.4	126.1	006.0000	0118.8	090.6	39.75
330.0	003.2856	0090.1	023.5	125.9	006.0000	0118.8	090.7	39.72
331.0	003.4111	0090.8	023.8	125.6	006.0000	0118.7	090.6	39.75
332.0	003.5389	0091.2	024.1	125.2	006.0000	0118.7	090.6	39.76
333.0	003.6691	0091.4	024.3	124.9	006.0000	0118.7	090.6	39.76
334.0	003.8017	0091.6	024.5	124.6	006.0000	0118.6	090.6	39.75
335.0	003.9366	0092.3	024.8	124.3	006.0000	0118.6	090.5	39.76
336.0	004.0739	0093.2	025.1	124.0	006.0000	0118.5	090.5	39.77
337.0	004.2135	0094.2	025.4	123.6	006.0000	0118.4	090.5	39.77
338.0	004.3554	0095.0	025.7	123.3	006.0000	0118.3	090.5	39.76
339.0	004.4997	0095.3	025.9	123.0	006.0000	0118.1	090.5	39.74
340.0	004.6464	0095.4	026.1	122.7	006.0000	0118.0	090.7	39.70
341.0	004.7740	0095.1	026.3	122.4	006.0000	0117.8	090.8	39.65
342.0	004.9033	0094.7	026.4	122.1	006.0000	0117.7	091.0	39.58
343.0	005.0343	0094.2	026.4	121.9	006.0000	0117.5	091.3	39.51
344.0	005.1671	0093.3	026.5	121.6	006.0000	0117.4	091.5	39.43
345.0	005.3016	0092.0	026.5	121.4	006.0000	0117.3	091.9	39.33
346.0	005.4378	0090.8	026.4	121.2	006.0000	0117.1	092.2	39.24
347.0	005.5758	0090.1	026.5	121.0	006.0000	0117.0	092.5	39.15
348.0	005.7155	0089.8	026.6	120.8	006.0000	0116.9	092.8	39.08
349.0	005.8569	0089.7	026.7	120.5	006.0000	0116.7	093.0	39.00

-----|-----

E2 KMOO-FM

Latitude: 32-45-04 N
Longitude: 095-33-18 W
ERP: 6.00 kW
HAAT: 93.16 m
Channel: 260
Frequency: 99.9 MHz
RCAMSL Height: 213.0 m
Site Elevation: 140.0 m



KMOO-FM 70 DBU

MINEOLA

Scale 1:300,000

0 4 8 12 km

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E3 HAAT AND SERVICE CONTOURS

N. Lat. = 352327 W. Lng. = 974524

HAAT and Distance to Contour - FCC Method - NGDC 30 SEC

Azi.	AV EL	HAAT	dBk	70-F5	60-F5
000	405.4	110.6	13.22	23.42	39.33
045	384.2	131.8	13.22	25.22	42.11
090	407.5	108.5	13.22	23.21	39.02
135	377.9	138.1	13.22	25.72	42.93
180	385.7	130.3	13.22	25.10	41.91
225	389.1	126.9	13.22	24.82	41.47
270	401.7	114.3	13.22	23.77	39.86
315	417.8	98.2	13.22	22.11	37.39

Ave El= 396.16 M HAAT= 119.84 M AMSL= 516 M

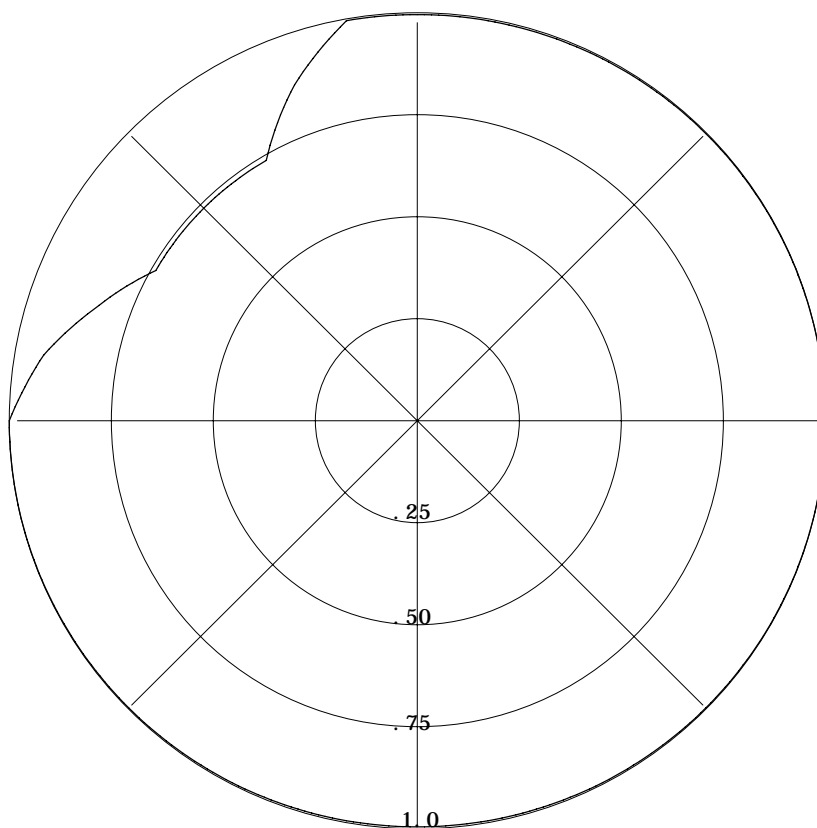
E3A KMOOFM DA PATTERN

RMS(V) = .965

Bearing Field % Voltage

Graph is Percent Relative Field Voltage

000	=	1
010	=	1
020	=	1
030	=	1
040	=	1
050	=	1
060	=	1
070	=	1
080	=	1
090	=	1
100	=	1
110	=	1
120	=	1
130	=	1
140	=	1
150	=	1
160	=	1
170	=	1
180	=	1
190	=	1
200	=	1
210	=	1
220	=	1
230	=	1
240	=	1
250	=	1
260	=	1
270	=	1
280	=	.93
290	=	.83
300	=	.74
310	=	.74
320	=	.74
330	=	.74
340	=	.88
350	=	1



E4A KMOO-FM ALLOCATION REFERENCE POINT CHANNEL STUDY

REFERENCE		CLASS = A	DISPLAY DATES
32 43 27.0 N.			DATA 03-12-08
95 32 42.0 W.	Current	Spacings to 3rd Adj.	SEARCH 03-13-08
----- Channel 260 - 99.9 MHz -----			

Call		Channel	Location		Azi	Dist	FCC	Margin
KMOO-FM	LIC	260A	Mineola	TX	342.7	3.13	114.5	-111.37
KAJK	LIC-N	257C2	White Oak	TX	105.9	54.98	54.5	0.48
AL3045	VAC	260A	Van Alstyne	TX	312.0	115.26	114.5	0.76 (1)

(1) Site specification proposed to N 33-24-51 W 96-28-05.

WACO-FM	LIC-N	260C	Waco	TX	227.7	226.82	225.5	1.32
AP7454	APP	259A	Sulphur Bluff	TX	14.0	83.91	71.5	12.41
NEW	CP	259A	Sulphur Bluff	TX	14.0	83.91	71.5	12.41
AL9118	VAC	259A	Cuney	TX	168.9	83.96	71.5	12.46
KJKK	LIC	262C	Dallas	TX	263.7	133.97	94.5	39.47
KPLX	LIC	258C	Fort Worth	TX	263.6	135.14	94.5	40.64
KNRB	LIC	261C2	Atlanta	TX	66.1	148.37	105.5	42.87
KTCS-FM	LIC	260C	Fort Smith	AR	16.8	272.43	225.5	46.93
KYBI	LIC	261C2	Lufkin	TX	153.1	163.50	105.5	58.00
KYFP	LIC-D	206C1	Palestine	TX	191.5	81.58	21.5	60.08
KMJJ-FM	LIC	259C2	Shreveport	LA	94.0	166.69	105.5	61.19
KMJJ-FM	CP -N	259C2	Shreveport	LA	98.3	169.00	105.5	63.50
KXAL-FM	LIC	262A	Tatum	TX	112.7	99.19	30.5	68.69
KYBI	CP	261C2	Lufkin	TX	151.7	174.86	105.5	69.36
AL7135	VAC	263A	Annona	TX	25.4	105.47	30.5	74.97

E4B KMOO-FM

REFERENCE POINT

Latitude: 32-43-27 N

Longitude: 095-32-42 W

ERP: 6.00 kW

HAAT: 100.0 m

Channel: 260

Frequency: 99.9 MHz

RCAMSL Height: 218.29 m

Site Elevation: 116.0 m

CLASS A 70 DBU = 16.2 KM

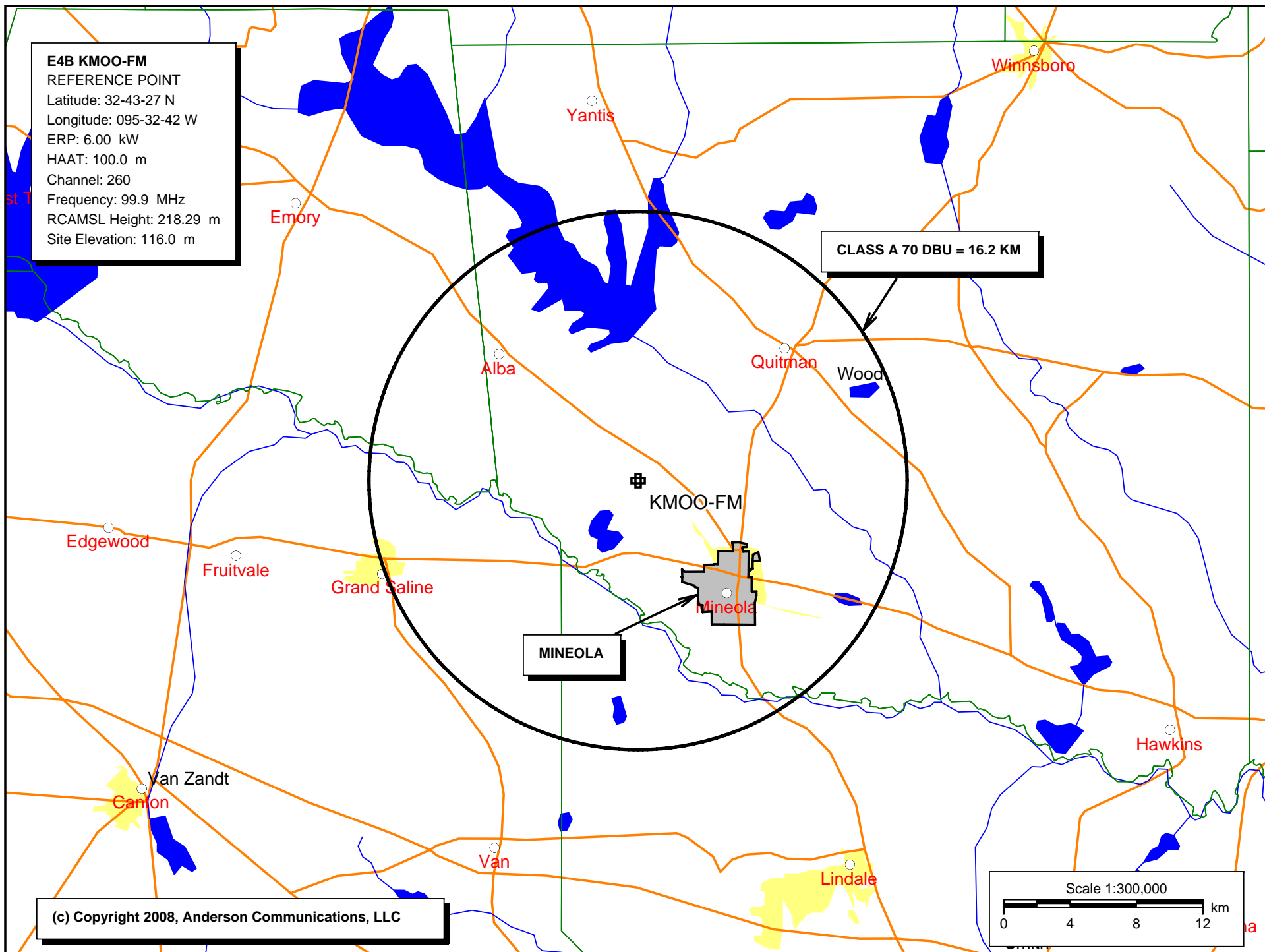
KMOO-FM

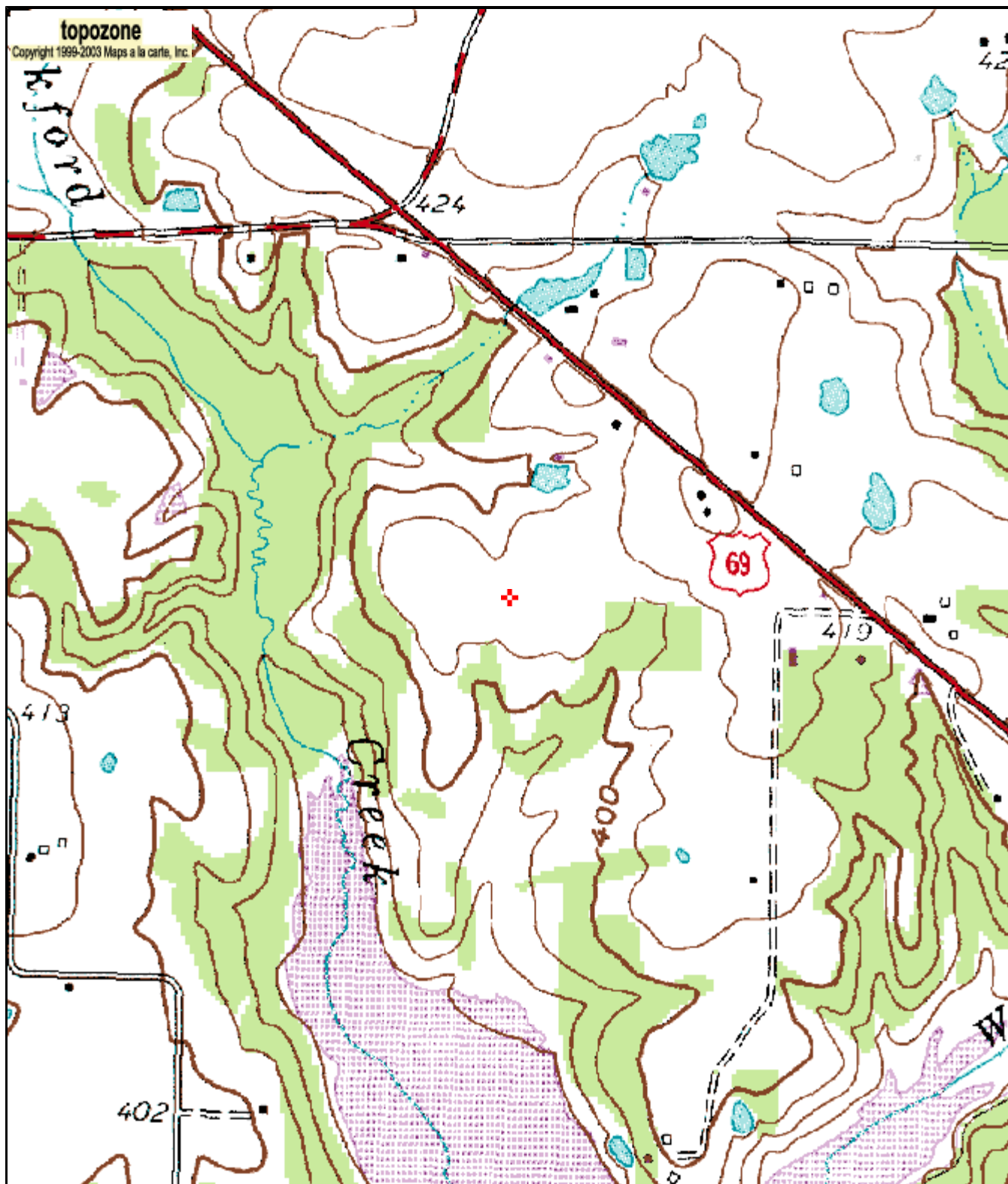
MINEOLA

Scale 1:300,000

0 4 8 12 km

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0 0.1 0.2 0.3 0.4 0.5 km
0 0.09 0.18 0.27 0.36 0.45 mi

32° 43' 27"N, 95° 32' 42"W (NAD27)
USGS Golden (TX) Quadrangle
Projection is UTM Zone 15 NAD83 Datum

M=3.7
G=-1.377

E5A VAN ALYSTYNE SITE SPECIFICATION CHANNEL STUDY

REFERENCE			DISPLAY DATES
33 24 51.0 N.	CLASS = A		DATA 03-11-08
96 28 05.0 W.	Current Spacings to 3rd Adj.		SEARCH 03-11-08
----- Channel 260 - 99.9 MHz -----			

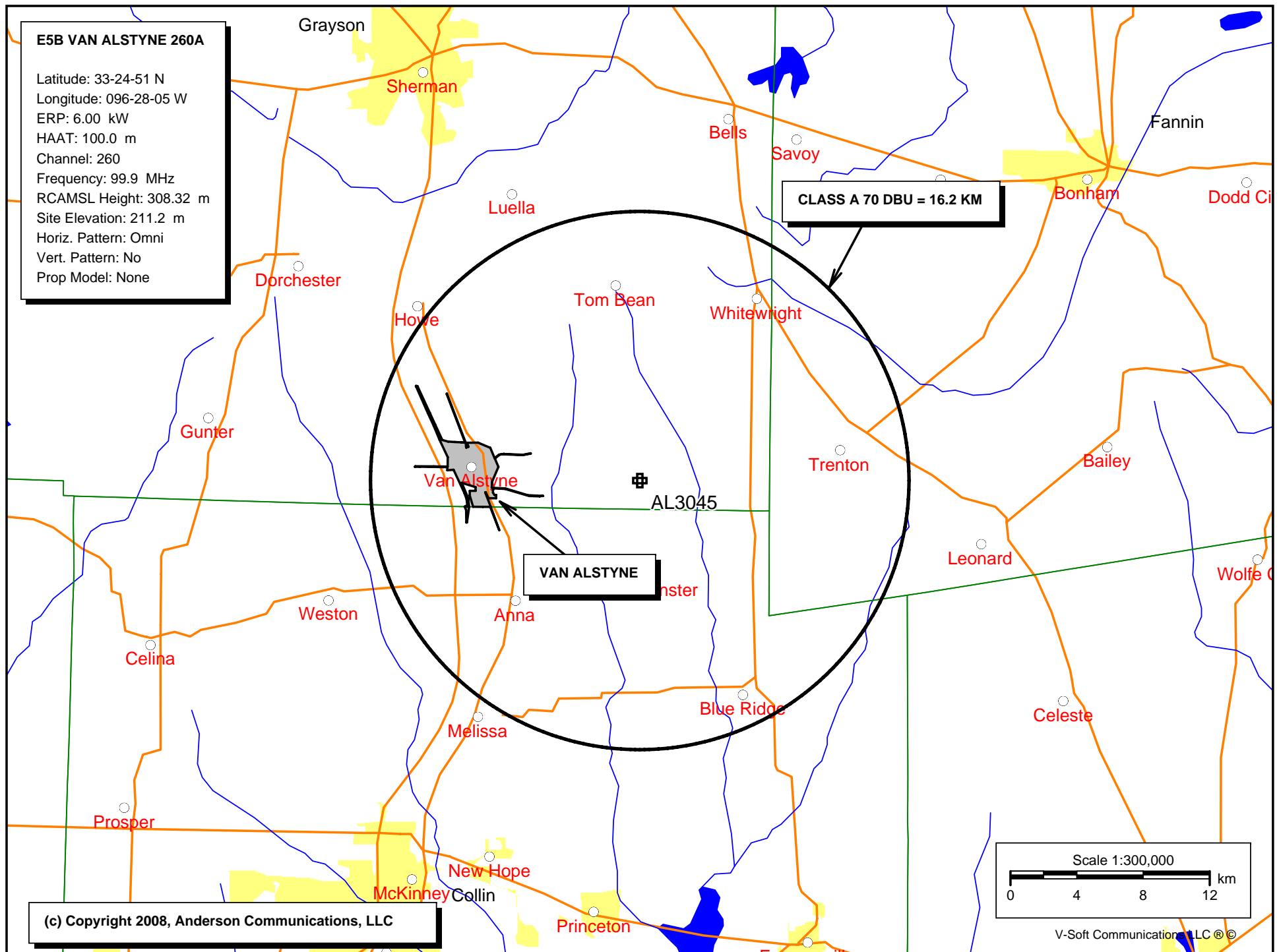
Call		Channel	Location		Azi	Dist	FCC	Margin
AL3045	VAC	260A	Van Alstyne	TX	0.0	0.00	114.5	-114.50
KMOO-FM	LIC	260A	Mineola	TX	130.7	112.58	114.5	-1.92(1)

(1) KMOO-FM application site elects 73.215. See fully spaced KMOO-FM allocation reference point below at N 32-43-27 W 95-32-42.

KLUR	LIC	260C1	Wichita Falls	TX	286.3	199.55	199.5	0.05
DKTSH	VAC	259C3	Tishomingo	OK	354.4	88.64	88.5	0.14
KMOO-FM	RSV	260A	Mineola	TX	131.5	115.26	114.5	0.76
KJKK	LIC	262C	Dallas	TX	206.7	103.05	94.5	8.55
KPLX	LIC	258C	Fort Worth	TX	207.2	103.79	94.5	9.29
WACO-FM	LIC-N	260C	Waco	TX	199.1	243.53	225.5	18.03
KTCS-FM	LIC	260C	Fort Smith	AR	41.2	246.86	225.5	21.36
NEW	CP	259A	Sulphur Bluff	TX	87.0	106.27	71.5	34.77
AP7454	APP	259A	Sulphur Bluff	TX	87.0	106.27	71.5	34.77
KYKC	LIC	261C2	Byng	OK	350.4	161.92	105.5	56.42
AP3674	APP	206A	Durant	OK	359.7	67.35	9.5	57.85
AP0674	APP-D	206C3	Caddo	OK	5.5	89.97	11.5	78.47
KNON	LIC-D	207C1	Dallas	TX	207.3	102.84	21.5	81.34
AP0633	APP-D	206C2	Durant	OK	355.4	105.18	14.5	90.68
KHCP	LIC	207C3	Paris	TX	63.5	103.83	11.5	92.33

E5B VAN ALSTYNE 260A

Latitude: 33-24-51 N
Longitude: 096-28-05 W
ERP: 6.00 kW
HAAT: 100.0 m
Channel: 260
Frequency: 99.9 MHz
RCAMSL Height: 308.32 m
Site Elevation: 211.2 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None



CLASS A 70 DBU = 16.2 KM

Van Alstyne

VAN ALSTYNE

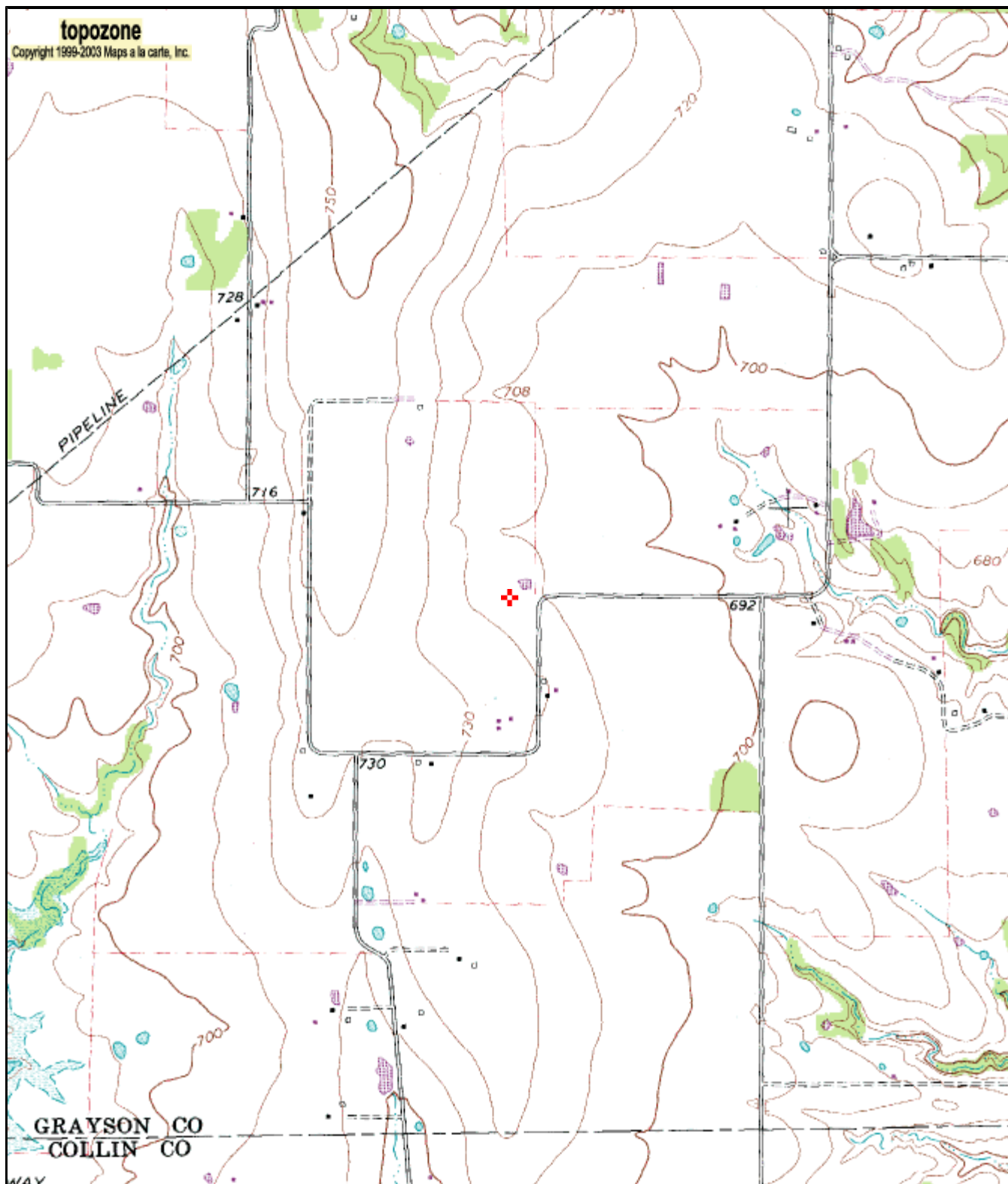
AL3045

Scale 1:300,000

0 4 8 12 km

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0 0.3 0.6 0.9 1.2 1.5 km

0 0.1 0.2 0.3 0.4 0.5 mi

33° 24' 51"N, 96° 28' 05"W (NAD27)
Elevation 715.7 ft / 218.1 m (USGS NED)

USGS Pilot Grove (TX) Quadrangle
Projection is UTM Zone 14 NAD83 Datum

M
G
M=4.255
G=1.395

 [Map Registration](#)

Registration Detail

Reg Number	1052051	Status	Constructed
File Number	A0061309	Constructed	06/11/1976
FAA Study	76-SW-731-OE	EMI	No
FAA Issue Date	06/14/1976	NEPA	No

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Communications Purposes

Location (in NAD83 Coordinates)

Lat/Long 32-45-04.0 N 095-33-19.0 W 0.8 MILES NE OF HWY 69, 7 MILES NW
City, State MINEOLA , TX

Center of
AM Array

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
140.2	77.0
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
217.2	77.0

Painting and Lighting Specifications

FCC Paragraphs 1, 3, 11, 21

Owner & Contact Information

FRN	0004368395	Licensee ID	L00010147
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Owner

KMOO, INC. DBA = KMOO-FM
Attention To: SAM CURRY
HWY 69 NORTH
P.O. Box 628
MINEOLA , TX 75773

P: (903)569-3823
E:

Contact

P:
E:

Last Action Status

Status	Constructed	Received	06/26/1998
Purpose	New	Entered	06/26/1998
Mode	Interactive		

Related Applications

06/26/1998 A0061309 - New (NE)

Comments