

**MINOR MODIFICATION TO  
KZLS PROPOSING CHANGE IN SITE AND  
ONE-STEP UPGRADE TO 259C2**

**A. KZLS application**

This technical report has been developed in support of a minor change application for the constructed KZLS C3 facility at Mustang, OK, proposing a change in site and class to 259C2 at a new tower site. It is noted that a Form 302 license to cover application has been filed for the existing C3 construction permit.

**KZLS Allocation analysis**

All terrain data utilized in this report were obtained from the V-Soft USGS three (3) second terrain data base<sup>1</sup>.

A channel study is provided as E1 for the proposed facility at:

**(NAD 27) N 35-25-44 W 97-46-00.**

Section 73.215 processing is elected to station KXBL on channel 258C1 and the vacant co-channel 259C3 allocation at Tishomingo, OK (see E1A and E1B). The proposed facility meets Section 73.315 coverage requirements as demonstrated in Exhibit E2. A tabulation of average terrain on the eight (8) equally spaced radials is included as Exhibit E3 and terrain on all 360 radials is included as E3A.

A fully spaced 259C2 reference point is provided at:

**(NAD27) N 35-26-48 W 97-48-00 (see exhibits E4, E5 and E6).**

The proposed 259C2 application is mutually exclusive with the authorized and licensed facilities.

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<sup>1</sup> It is noted that the USGS three second database provides a more accurate terrain calculation, and has been accepted by the Commission on a number of occasions in the past. It was specifically cited as "more accurate" by the Commission in MB Docket No. 04-319:

*The 3 second terrain database provides a more detailed terrain depiction than the 30 second terrain database referenced in Section 73.312 (d) of the rules. Section 73.312 (d) permits the use of the 30 second terrain database, or better, in a disputed case. (at footnote 4).*

**B. Antenna System and RF Calculations**

KZLS will utilize an ERI SHPX-10AC one half wavelength spaced and circularly polarized antenna mounted on a new tower at 143meters AGL. The maximum RF contribution for the KZLS application was calculated to be .46 microwatts/cm<sup>2</sup> at 450 meters utilizing the Commission's FMMODEL program - .23% of the general public maximum exposure level of 200 microwatts/cm<sup>2</sup>.

**C. Conclusion**

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



**June 8, 2009**

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General Radiotelephone license #PG-6-7352.**

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# E1 KZLS 259C2 APPLICATION SITE CHANNEL STUDY

REFERENCE		CLASS = C2	DISPLAY DATES
35 25 44.0 N.			DATA 06-05-09
97 46 00.0 W.	Current	Spacings to 3rd Adj.	SEARCH 06-08-09
----- Channel 259 - 99.7 MHz -----			

Call		Channel	Location		Azi	Dist	FCC	Margin
KZLS	CP	259C3	Mustang	OK	152.0	15.6	176.5	-160.9
KZLS	LIC	259C1	Alva	OK	341.2	136.8	223.5	-86.7
KXBL	LIC	258C1	Henryetta	OK	72.6	155.4	157.5	-2.1(1)

(1) 73.215 processing elected.

AL2762	VAC	259C3	Tishomingo	OK	140.6	174.5	176.5	-2.0(2)
coordinates modified per BMPH-20070119AHJ and BPH-20080328AEH								

(2) 73.215 processing elected.

KBZQ	LIC	258C3	Lawton	OK	217.6	117.1	116.5	0.6
KYLV	LIC-D	205C1	Oklahoma City	OK	57.7	30.1	26.5	3.6
AU7963066VAC		259C2	Erick	OK	258.8	196.6	189.5	7.1
Counterproposal; Site Restriction: 15.9 km South.								
KLUR	LIC	260C1	Wichita Falls	TX	202.8	183.7	157.5	26.2
KYKC	LIC	261C2	Byng	OK	124.8	111.5	57.5	54.0
KCDL	LIC	257C3	Cordell	OK	271.3	111.0	55.5	55.5
KADA-FM	LIC	257A	Ada	OK	130.3	123.1	54.5	68.6
KXTH	LIC	206A	Seminole	OK	104.1	96.3	14.5	81.8
KYCU	LIC	206C1	Clinton	OK	271.2	111.0	26.5	84.5
KLOR-FM	RSV	258C1	Cheney	KS	358.6	243.2	157.5	85.7
One Step Application								
KLOR-FM	APP-N	258C1	Cheney	KS	359.7	248.2	157.5	90.7
One Step Application								
KJCM	LIC	262C3	Snyder	OK	234.4	148.4	55.5	92.9
KTCS-FM	LIC	260C	Fort Smith	AR	97.2	283.6	187.5	96.1

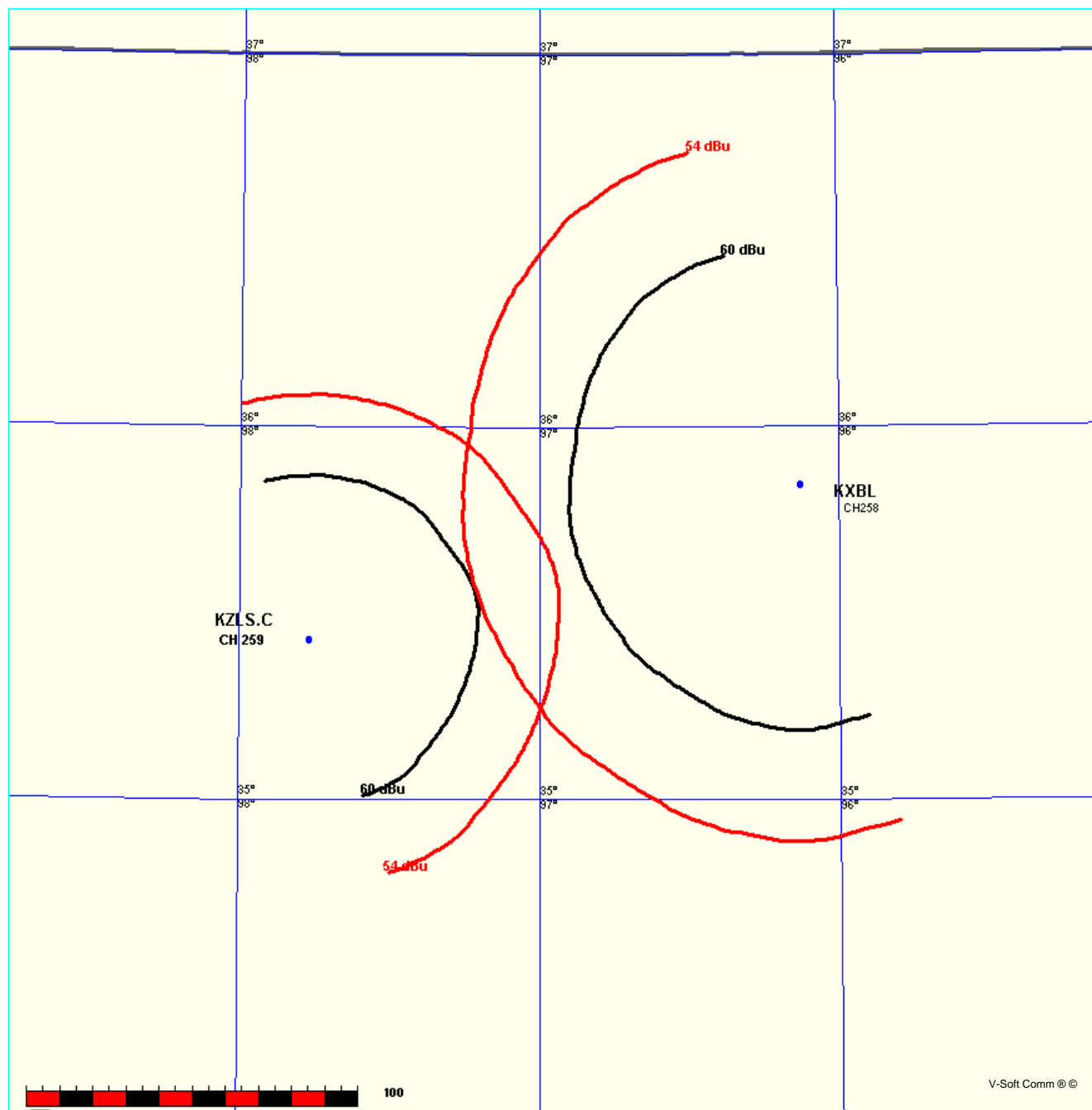
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## E1A KZLA - KXBL MAX-CLASS INTERFERENCE PLOT

FMCommander Single Allocation Study - 06-08-2009 - USGS 03 SEC  
KZLS.C's Overlaps (In= 0.55 km, Out= 8.09 km)

KZLS.C CH 259 C2 73.215 N  
Lat= 35 25 44.0, Lng= 97 46 00.0  
35.0 kW 150.3 M HAAT, 551 M COR  
Prot.= 60 dBu, Intef.= 54 dBu

KXBL^ CH 258 C1 BLH19860425KD  
Lat= 35 50 02.0, Lng= 96 07 28.0  
Max CIs: 100.0 kW 299 M HAAT, 531 M COR  
Prot.= 60 dBu, Intef.= 54 dBu



# E1A1 KZLS-KXBL FMOVER ANALYSIS

06-08-2009

USGS 03 SEC Terrain Data

FMOver Analysis

KZLS.C

Channel = 259C2

Max ERP = 35 kW

RCAMSL = 551 M

N. Lat. 35 25 44.0

W. Lng. 97 46 00.0

Protected

60 dBu

KXBL BLH19860425KD

Channel = 258C1

Max ERP = 100 kW

RCAMSL = 531 M

N. Lat. 35 50 02.0

W. Lng. 96 07 28.0

Interfering

54 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
055.0	035.0000	0158.7	050.1	261.7	100.0000	0275.5	108.4	52.33	
056.0	035.0000	0159.0	050.2	261.3	100.0000	0276.0	108.0	52.46	
057.0	035.0000	0159.2	050.2	260.9	100.0000	0276.4	107.6	52.58	
058.0	035.0000	0159.9	050.3	260.5	100.0000	0276.5	107.2	52.70	
059.0	035.0000	0160.7	050.4	260.1	100.0000	0276.5	106.8	52.81	
060.0	035.0000	0161.6	050.5	259.7	100.0000	0276.6	106.4	52.93	
061.0	035.0000	0162.5	050.6	259.2	100.0000	0276.6	106.1	53.04	
062.0	035.0000	0163.3	050.7	258.8	100.0000	0276.8	105.7	53.14	
063.0	035.0000	0164.6	050.8	258.3	100.0000	0277.3	105.3	53.26	
064.0	035.0000	0166.0	051.0	257.9	100.0000	0277.6	105.0	53.38	
065.0	035.0000	0167.4	051.2	257.4	100.0000	0278.0	104.6	53.50	
066.0	035.0000	0168.8	051.3	257.0	100.0000	0278.4	104.3	53.60	
067.0	035.0000	0169.9	051.4	256.5	100.0000	0278.5	104.0	53.69	
068.0	035.0000	0170.7	051.5	256.0	100.0000	0278.6	103.8	53.75	
069.0	035.0000	0171.6	051.6	255.5	100.0000	0278.2	103.6	53.80	
070.0	035.0000	0172.4	051.7	255.0	100.0000	0277.8	103.5	53.83	
071.0	035.0000	0173.4	051.8	254.5	100.0000	0277.3	103.3	53.86	
072.0	035.0000	0174.3	051.9	254.0	100.0000	0277.4	103.2	53.90	
073.0	035.0000	0175.2	052.0	253.5	100.0000	0277.9	103.1	53.95	
074.0	035.0000	0175.7	052.0	253.0	100.0000	0278.1	103.1	53.96	
075.0	035.0000	0175.6	052.0	252.5	100.0000	0277.9	103.1	53.94	
076.0	035.0000	0175.3	052.0	252.0	100.0000	0277.7	103.2	53.91	
077.0	035.0000	0174.9	051.9	251.5	100.0000	0277.3	103.3	53.86	
078.0	035.0000	0174.6	051.9	251.0	100.0000	0277.4	103.5	53.82	
079.0	035.0000	0174.4	051.9	250.5	100.0000	0277.4	103.6	53.77	
080.0	035.0000	0173.7	051.8	250.0	100.0000	0277.4	103.8	53.71	
081.0	035.0000	0172.7	051.7	249.5	100.0000	0277.3	104.1	53.62	
082.0	035.0000	0171.1	051.6	249.1	100.0000	0277.2	104.5	53.51	
083.0	035.0000	0168.7	051.3	248.6	100.0000	0277.2	105.0	53.37	
084.0	035.0000	0167.4	051.1	248.2	100.0000	0278.0	105.4	53.27	
085.0	035.0000	0166.1	051.0	247.8	100.0000	0278.1	105.8	53.16	
086.0	035.0000	0164.9	050.9	247.3	100.0000	0278.1	106.2	53.04	
087.0	035.0000	0163.8	050.7	246.9	100.0000	0278.1	106.6	52.92	
088.0	035.0000	0163.0	050.6	246.5	100.0000	0278.3	107.0	52.80	
089.0	035.0000	0162.3	050.6	246.1	100.0000	0278.3	107.4	52.69	
090.0	035.0000	0161.7	050.5	245.6	100.0000	0278.2	107.9	52.56	

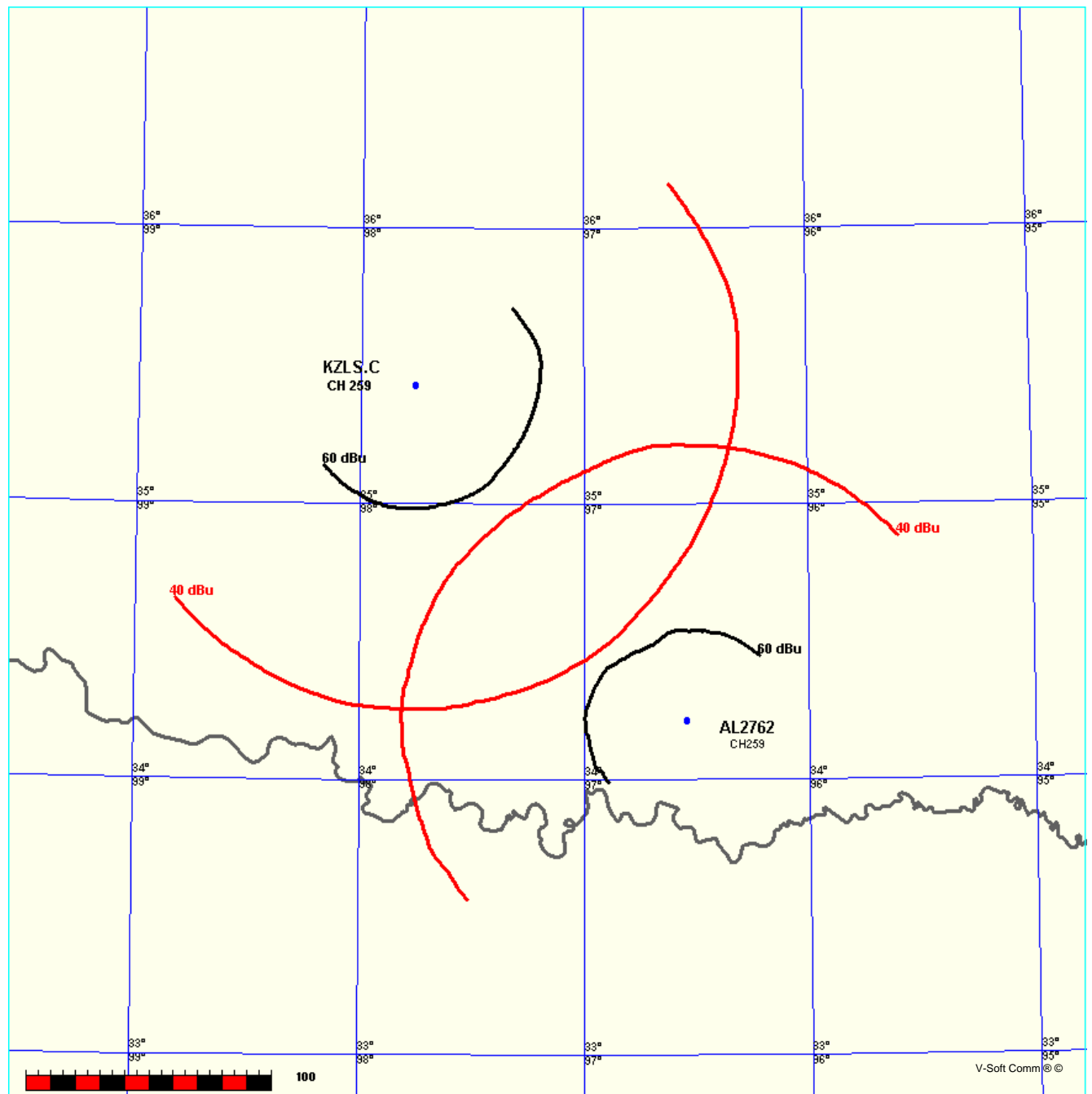
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## E1B KZLA - TISHOMINGO, OK ALLOCATION INTERFERENCE PLOT

FMCommander Single Allocation Study - 06-08-2009 - USGS 03 SEC  
KZLS.C's Overlaps (In= 15.85 km, Out= 9.81 km)

KZLS.C CH 259 C2 73.215 N  
Lat= 35 25 44.0, Lng= 97 46 00.0  
35.0 kW 150.3 M HAAT, 551 M COR  
Prot.= 60 dBu, Intef.= 40 dBu

AL2762^ CH 259 C3 RMcoord-6  
Lat= 34 12 34.0, Lng= 96 33 45.0  
Max CIs: 25.0 kW 100 M HAAT, 316.1 M COR  
Prot.= 60 dBu, Intef.= 40 dBu



## E2 KZLS.APP

Latitude: 35-25-44 N  
Longitude: 097-46-00 W  
ERP: 36.00 kW  
HAAT: 150.07 m  
Channel: 259  
Frequency: 99.7 MHz  
RCAMSL Height: 551.0 m  
Site Elevation: 408.0 m  
Horiz. Pattern: Omni

PROPOSED 70 DBU  
ENCOMPASSES MUSTANG

KZLS.APP

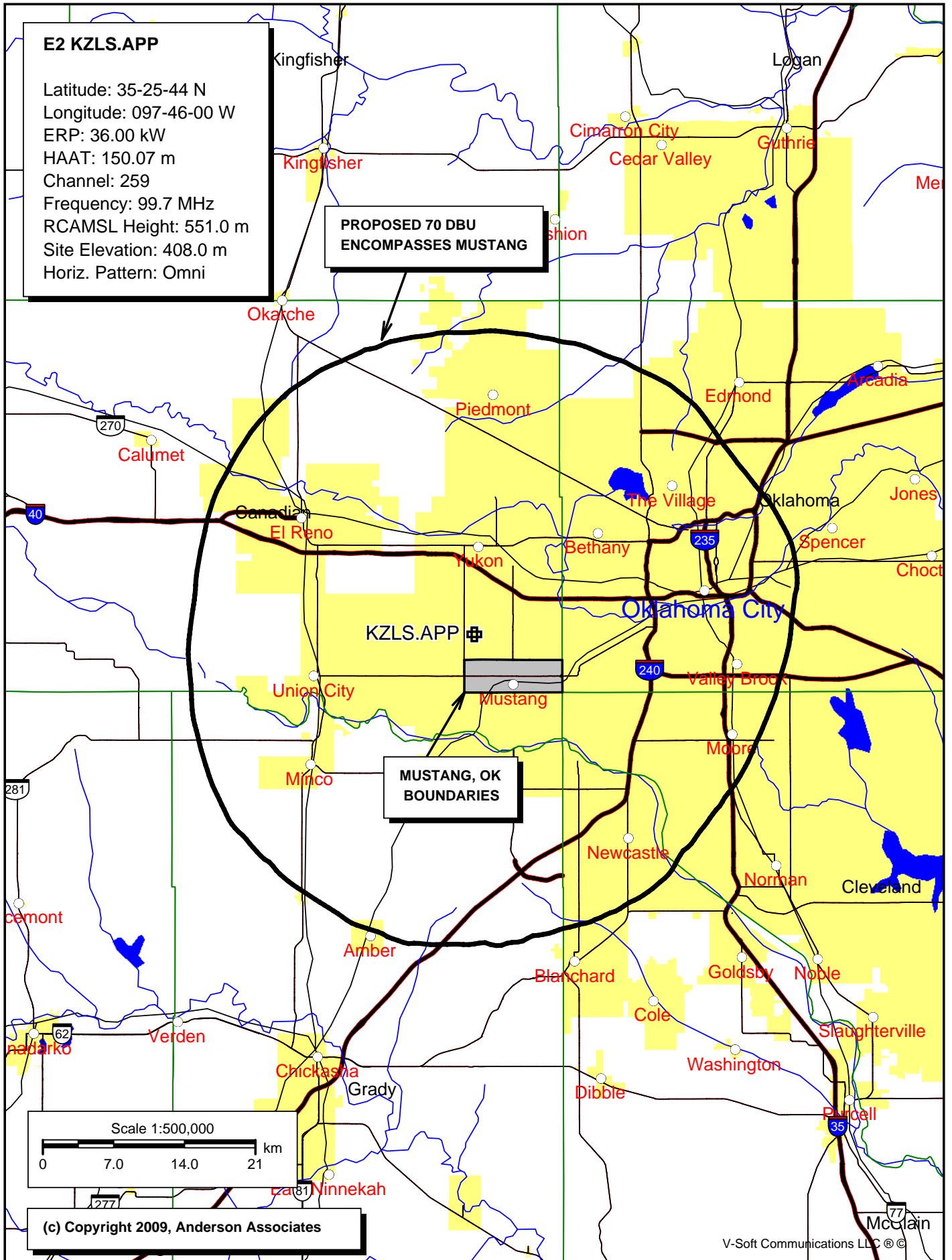
MUSTANG, OK  
BOUNDARIES

Scale 1:500,000

0 7.0 14.0 21 km

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### E3 HAAT AND CONTOUR TABULATION

N. Lat. = 352544.0    W. Lng. = 974600.0  
HAAT and Distance to Contour,  
FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC

Azi.	AV EL	HAAT	dBk	70-F5	60-F5
000	404.0	147.0	15.44	29.64	48.59
045	388.2	162.8	15.44	31.14	50.62
090	389.3	161.7	15.44	31.03	50.49
135	403.9	147.1	15.44	29.65	48.61
180	395.9	155.1	15.44	30.40	49.67
225	398.2	152.8	15.44	30.19	49.37
270	422.7	128.3	15.44	27.93	45.97
315	403.6	147.4	15.44	29.68	48.65

Ave El= 400.71 M    HAAT= 150.29 M    AMSL= 551



### E3A 360 DEGREE HAAT AND CONTOUR TABULATION

N. Lat. = 352544.0    W. Lng. = 974600.0  
HAAT and Distance to Contour,  
FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC

Azi.	AV EL	HAAT	dBk	70-F5	60-F5
000	404.0	147.0	15.44	29.64	48.59
001	403.1	147.9	15.44	29.72	48.71
002	402.4	148.6	15.44	29.79	48.81
003	401.9	149.1	15.44	29.83	48.87
004	401.7	149.3	15.44	29.86	48.91
005	401.9	149.1	15.44	29.84	48.88
006	401.9	149.1	15.44	29.84	48.88
007	402.0	149.0	15.44	29.83	48.86
008	402.1	148.9	15.44	29.82	48.85
009	401.7	149.3	15.44	29.85	48.90
010	401.5	149.5	15.44	29.87	48.93
011	401.5	149.5	15.44	29.87	48.93
012	401.7	149.3	15.44	29.86	48.90
013	401.5	149.5	15.44	29.87	48.92
014	400.9	150.1	15.44	29.93	49.01
015	400.5	150.5	15.44	29.97	49.07
016	400.7	150.3	15.44	29.94	49.03
017	400.4	150.6	15.44	29.97	49.08
018	399.3	151.7	15.44	30.08	49.22
019	398.1	152.9	15.44	30.20	49.39
020	397.6	153.4	15.44	30.24	49.45
021	397.5	153.5	15.44	30.25	49.47
022	397.4	153.6	15.44	30.26	49.47
023	397.5	153.5	15.44	30.25	49.46
024	397.7	153.3	15.44	30.23	49.43
025	397.6	153.4	15.44	30.24	49.44
026	397.3	153.7	15.44	30.27	49.49
027	396.6	154.4	15.44	30.34	49.58
028	395.4	155.6	15.44	30.44	49.73
029	394.7	156.3	15.44	30.51	49.82
030	394.6	156.4	15.44	30.52	49.83
031	394.6	156.4	15.44	30.52	49.83
032	394.1	156.9	15.44	30.57	49.90
033	393.2	157.8	15.44	30.66	50.01
034	392.1	158.9	15.44	30.76	50.14
035	391.2	159.8	15.44	30.85	50.26
036	390.5	160.5	15.44	30.92	50.35
037	389.6	161.4	15.44	31.00	50.46
038	388.7	162.3	15.44	31.09	50.56
039	388.6	162.4	15.44	31.10	50.57
040	388.6	162.4	15.44	31.10	50.57
041	388.5	162.5	15.44	31.11	50.59
042	388.3	162.7	15.44	31.13	50.61
043	387.9	163.1	15.44	31.16	50.65
044	387.8	163.2	15.44	31.18	50.67
045	388.2	162.8	15.44	31.14	50.62

## E3A CONT.

046	388.8	162.2	15.44	31.08	50.55
047	389.5	161.5	15.44	31.01	50.46
048	390.2	160.8	15.44	30.94	50.38
049	390.9	160.1	15.44	30.88	50.30
050	391.3	159.7	15.44	30.84	50.24
051	392.0	159.0	15.44	30.78	50.17
052	392.5	158.5	15.44	30.72	50.09
053	392.7	158.3	15.44	30.71	50.08
054	392.5	158.5	15.44	30.73	50.10
055	392.3	158.7	15.44	30.74	50.12
056	392.0	159.0	15.44	30.77	50.16
057	391.8	159.2	15.44	30.79	50.19
058	391.1	159.9	15.44	30.86	50.27
059	390.3	160.7	15.44	30.94	50.37
060	389.4	161.6	15.44	31.02	50.48
061	388.5	162.5	15.44	31.10	50.58
062	387.7	163.3	15.44	31.19	50.69
063	386.4	164.6	15.44	31.31	50.83
064	385.0	166.0	15.44	31.44	50.99
065	383.6	167.4	15.44	31.58	51.16
066	382.2	168.8	15.44	31.71	51.31
067	381.1	169.9	15.44	31.82	51.43
068	380.3	170.7	15.44	31.90	51.51
069	379.4	171.6	15.44	31.99	51.61
070	378.6	172.4	15.44	32.06	51.69
071	377.6	173.4	15.44	32.16	51.79
072	376.7	174.3	15.44	32.24	51.88
073	375.8	175.2	15.44	32.32	51.97
074	375.3	175.7	15.44	32.38	52.02
075	375.4	175.6	15.44	32.37	52.02
076	375.7	175.3	15.44	32.33	51.98
077	376.1	174.9	15.44	32.30	51.94
078	376.4	174.6	15.44	32.28	51.92
079	376.6	174.4	15.44	32.25	51.90
080	377.3	173.7	15.44	32.19	51.83
081	378.3	172.7	15.44	32.09	51.72
082	379.9	171.1	15.44	31.94	51.55
083	382.3	168.7	15.44	31.71	51.30
084	383.6	167.4	15.44	31.58	51.15
085	384.9	166.1	15.44	31.46	51.01
086	386.1	164.9	15.44	31.34	50.87
087	387.2	163.8	15.44	31.23	50.74
088	388.0	163.0	15.44	31.15	50.64
089	388.7	162.3	15.44	31.09	50.57
090	389.3	161.7	15.44	31.03	50.49
091	390.0	161.0	15.44	30.97	50.41
092	390.7	160.3	15.44	30.89	50.32
093	391.8	159.2	15.44	30.79	50.18
094	392.8	158.2	15.44	30.70	50.07
095	393.7	157.3	15.44	30.61	49.95
096	394.9	156.1	15.44	30.49	49.79
097	396.0	155.0	15.44	30.39	49.65
098	396.9	154.1	15.44	30.31	49.54
099	397.7	153.3	15.44	30.23	49.44
100	398.0	153.0	15.44	30.20	49.40

## E3A CONT.

101	398.2	152.8	15.44	30.18	49.37
102	398.7	152.3	15.44	30.13	49.30
103	399.6	151.4	15.44	30.05	49.18
104	400.6	150.4	15.44	29.96	49.05
105	401.1	149.9	15.44	29.91	48.98
106	401.7	149.3	15.44	29.85	48.90
107	402.3	148.7	15.44	29.80	48.82
108	402.7	148.3	15.44	29.76	48.77
109	403.1	147.9	15.44	29.72	48.71
110	403.5	147.5	15.44	29.69	48.66
111	404.0	147.0	15.44	29.63	48.58
112	404.1	146.9	15.44	29.63	48.58
113	404.0	147.0	15.44	29.64	48.59
114	404.0	147.0	15.44	29.64	48.59
115	404.0	147.0	15.44	29.64	48.59
116	404.2	146.8	15.44	29.62	48.56
117	404.4	146.6	15.44	29.60	48.53
118	404.6	146.4	15.44	29.59	48.51
119	404.8	146.2	15.44	29.56	48.48
120	405.1	145.9	15.44	29.53	48.44
121	405.5	145.5	15.44	29.50	48.38
122	406.2	144.8	15.44	29.43	48.28
123	406.8	144.2	15.44	29.38	48.21
124	406.3	144.7	15.44	29.42	48.27
125	406.1	144.9	15.44	29.44	48.29
126	407.0	144.0	15.44	29.36	48.17
127	407.1	143.9	15.44	29.35	48.16
128	406.9	144.1	15.44	29.37	48.18
129	406.5	144.5	15.44	29.41	48.24
130	406.2	144.8	15.44	29.43	48.28
131	406.1	144.9	15.44	29.44	48.30
132	405.6	145.4	15.44	29.49	48.36
133	404.7	146.3	15.44	29.57	48.49
134	403.8	147.2	15.44	29.65	48.61
135	403.9	147.1	15.44	29.65	48.61
136	404.5	146.5	15.44	29.59	48.52
137	403.3	147.7	15.44	29.70	48.69
138	401.7	149.3	15.44	29.85	48.90
139	399.5	151.5	15.44	30.06	49.19
140	397.6	153.4	15.44	30.24	49.44
141	396.4	154.6	15.44	30.35	49.60
142	395.6	155.4	15.44	30.43	49.70
143	395.4	155.6	15.44	30.44	49.73
144	395.1	155.9	15.44	30.48	49.77
145	394.7	156.3	15.44	30.52	49.83
146	394.6	156.4	15.44	30.52	49.83
147	394.5	156.5	15.44	30.53	49.85
148	394.7	156.3	15.44	30.51	49.82
149	395.1	155.9	15.44	30.48	49.78
150	395.8	155.2	15.44	30.41	49.68
151	395.5	155.5	15.44	30.44	49.72
152	394.9	156.1	15.44	30.50	49.80
153	394.6	156.4	15.44	30.52	49.84
154	395.6	155.4	15.44	30.43	49.71
155	395.7	155.3	15.44	30.42	49.69

## E3A CONT.

156	395.3	155.7	15.44	30.45	49.74
157	395.7	155.3	15.44	30.42	49.69
158	395.1	155.9	15.44	30.47	49.77
159	395.6	155.4	15.44	30.43	49.71
160	396.7	154.3	15.44	30.33	49.57
161	397.0	154.0	15.44	30.29	49.52
162	397.3	153.7	15.44	30.26	49.48
163	398.1	152.9	15.44	30.20	49.39
164	398.0	153.0	15.44	30.20	49.40
165	397.6	153.4	15.44	30.24	49.45
166	397.4	153.6	15.44	30.26	49.47
167	397.7	153.3	15.44	30.23	49.44
168	398.0	153.0	15.44	30.20	49.39
169	398.7	152.3	15.44	30.13	49.30
170	397.2	153.8	15.44	30.28	49.50
171	395.1	155.9	15.44	30.48	49.77
172	394.6	156.4	15.44	30.52	49.83
173	395.1	155.9	15.44	30.47	49.77
174	394.7	156.3	15.44	30.51	49.82
175	393.1	157.9	15.44	30.67	50.02
176	393.3	157.7	15.44	30.65	50.00
177	394.8	156.2	15.44	30.50	49.80
178	397.1	153.9	15.44	30.29	49.52
179	396.8	154.2	15.44	30.32	49.56
180	395.9	155.1	15.44	30.40	49.67
181	395.3	155.7	15.44	30.46	49.75
182	395.2	155.8	15.44	30.47	49.76
183	395.4	155.6	15.44	30.45	49.74
184	395.0	156.0	15.44	30.49	49.79
185	394.4	156.6	15.44	30.55	49.86
186	393.9	157.1	15.44	30.59	49.92
187	392.9	158.1	15.44	30.69	50.05
188	392.1	158.9	15.44	30.76	50.14
189	391.7	159.3	15.44	30.80	50.19
190	391.5	159.5	15.44	30.82	50.22
191	390.7	160.3	15.44	30.90	50.32
192	389.2	161.8	15.44	31.04	50.51
193	389.4	161.6	15.44	31.03	50.48
194	390.0	161.0	15.44	30.96	50.40
195	390.4	160.6	15.44	30.93	50.36
196	390.9	160.1	15.44	30.87	50.29
197	392.4	158.6	15.44	30.74	50.12
198	392.8	158.2	15.44	30.69	50.06
199	392.7	158.3	15.44	30.71	50.08
200	392.4	158.6	15.44	30.74	50.11
201	392.1	158.9	15.44	30.77	50.15
202	391.8	159.2	15.44	30.79	50.19
203	391.8	159.2	15.44	30.79	50.19
204	392.6	158.4	15.44	30.72	50.09
205	393.9	157.1	15.44	30.59	49.93
206	395.0	156.0	15.44	30.49	49.79
207	395.5	155.5	15.44	30.44	49.73
208	395.9	155.1	15.44	30.40	49.66
209	396.1	154.9	15.44	30.38	49.64
210	396.2	154.8	15.44	30.37	49.63

## E3A CONT.

211	396.5	154.5	15.44	30.35	49.60
212	396.6	154.4	15.44	30.34	49.58
213	396.8	154.2	15.44	30.32	49.56
214	396.6	154.4	15.44	30.33	49.58
215	396.5	154.5	15.44	30.35	49.59
216	396.3	154.7	15.44	30.36	49.61
217	396.4	154.6	15.44	30.35	49.60
218	396.6	154.4	15.44	30.34	49.58
219	397.0	154.0	15.44	30.30	49.53
220	397.7	153.3	15.44	30.24	49.44
221	398.9	152.1	15.44	30.12	49.28
222	399.3	151.7	15.44	30.08	49.22
223	398.1	152.9	15.44	30.20	49.39
224	397.9	153.1	15.44	30.21	49.40
225	398.2	152.8	15.44	30.19	49.37
226	398.4	152.6	15.44	30.16	49.34
227	398.6	152.4	15.44	30.15	49.32
228	399.0	152.0	15.44	30.10	49.26
229	399.0	152.0	15.44	30.11	49.27
230	398.1	152.9	15.44	30.19	49.38
231	397.6	153.4	15.44	30.24	49.45
232	397.6	153.4	15.44	30.24	49.45
233	398.0	153.0	15.44	30.21	49.40
234	399.1	151.9	15.44	30.10	49.26
235	400.0	151.0	15.44	30.01	49.12
236	400.8	150.2	15.44	29.93	49.02
237	401.7	149.3	15.44	29.85	48.90
238	402.3	148.7	15.44	29.80	48.82
239	402.8	148.2	15.44	29.75	48.75
240	403.4	147.6	15.44	29.69	48.67
241	404.3	146.7	15.44	29.61	48.55
242	405.1	145.9	15.44	29.53	48.43
243	406.2	144.8	15.44	29.44	48.29
244	407.0	144.0	15.44	29.36	48.18
245	407.8	143.2	15.44	29.29	48.07
246	408.6	142.4	15.44	29.22	47.95
247	409.2	141.8	15.44	29.16	47.87
248	409.9	141.1	15.44	29.09	47.76
249	410.8	140.2	15.44	29.01	47.64
250	411.6	139.4	15.44	28.94	47.53
251	412.1	138.9	15.44	28.89	47.46
252	412.4	138.6	15.44	28.86	47.42
253	412.9	138.1	15.44	28.82	47.34
254	413.6	137.4	15.44	28.76	47.25
255	414.5	136.5	15.44	28.68	47.13
256	415.5	135.5	15.44	28.58	46.98
257	416.5	134.5	15.44	28.49	46.84
258	417.6	133.4	15.44	28.39	46.68
259	418.6	132.4	15.44	28.30	46.55
260	419.2	131.8	15.44	28.25	46.47
261	419.6	131.4	15.44	28.21	46.40
262	420.0	131.0	15.44	28.18	46.36
263	420.1	130.9	15.44	28.16	46.33
264	420.2	130.8	15.44	28.15	46.32
265	420.3	130.7	15.44	28.15	46.31

## E3A CONT.

266	420.5	130.5	15.44	28.13	46.29
267	420.8	130.2	15.44	28.11	46.24
268	421.4	129.6	15.44	28.05	46.16
269	422.0	129.0	15.44	28.00	46.08
270	422.7	128.3	15.44	27.93	45.97
271	423.3	127.7	15.44	27.88	45.89
272	423.9	127.1	15.44	27.82	45.81
273	424.4	126.6	15.44	27.79	45.75
274	424.8	126.2	15.44	27.75	45.69
275	425.2	125.8	15.44	27.71	45.63
276	425.5	125.5	15.44	27.68	45.59
277	425.7	125.3	15.44	27.66	45.56
278	425.7	125.3	15.44	27.67	45.57
279	425.5	125.5	15.44	27.68	45.59
280	424.8	126.2	15.44	27.74	45.69
281	424.0	127.0	15.44	27.82	45.80
282	423.5	127.5	15.44	27.86	45.87
283	423.1	127.9	15.44	27.90	45.92
284	422.7	128.3	15.44	27.93	45.98
285	422.3	128.7	15.44	27.97	46.04
286	421.6	129.4	15.44	28.03	46.12
287	421.0	130.0	15.44	28.09	46.22
288	420.4	130.6	15.44	28.14	46.29
289	419.9	131.1	15.44	28.18	46.37
290	419.3	131.7	15.44	28.24	46.45
291	418.5	132.5	15.44	28.31	46.57
292	417.4	133.6	15.44	28.41	46.71
293	416.5	134.5	15.44	28.49	46.84
294	415.7	135.3	15.44	28.56	46.95
295	414.9	136.1	15.44	28.63	47.06
296	414.1	136.9	15.44	28.71	47.18
297	413.3	137.7	15.44	28.79	47.30
298	412.6	138.4	15.44	28.85	47.39
299	412.0	139.0	15.44	28.90	47.47
300	411.7	139.3	15.44	28.92	47.51
301	411.5	139.5	15.44	28.95	47.55
302	411.3	139.7	15.44	28.97	47.58
303	410.9	140.1	15.44	29.00	47.63
304	410.3	140.7	15.44	29.05	47.71
305	409.6	141.4	15.44	29.12	47.81
306	408.9	142.1	15.44	29.18	47.90
307	408.2	142.8	15.44	29.24	48.00
308	407.7	143.3	15.44	29.30	48.08
309	407.1	143.9	15.44	29.35	48.16
310	406.5	144.5	15.44	29.41	48.25
311	405.7	145.3	15.44	29.48	48.36
312	404.8	146.2	15.44	29.56	48.48
313	404.3	146.7	15.44	29.61	48.55
314	403.9	147.1	15.44	29.65	48.60
315	403.6	147.4	15.44	29.68	48.65
316	403.2	147.8	15.44	29.71	48.70
317	402.9	148.1	15.44	29.74	48.74
318	402.5	148.5	15.44	29.78	48.79
319	401.8	149.2	15.44	29.84	48.88
320	401.5	149.5	15.44	29.88	48.94

## E3A CONT.

321	401.1	149.9	15.44	29.91	48.99
322	400.5	150.5	15.44	29.97	49.06
323	400.3	150.7	15.44	29.99	49.10
324	400.5	150.5	15.44	29.97	49.07
325	400.6	150.4	15.44	29.96	49.05
326	400.9	150.1	15.44	29.93	49.02
327	401.0	150.0	15.44	29.92	49.00
328	400.8	150.2	15.44	29.94	49.02
329	400.5	150.5	15.44	29.97	49.07
330	400.6	150.4	15.44	29.96	49.06
331	401.1	149.9	15.44	29.91	48.99
332	401.4	149.6	15.44	29.89	48.95
333	402.0	149.0	15.44	29.83	48.87
334	402.4	148.6	15.44	29.79	48.81
335	402.5	148.5	15.44	29.78	48.80
336	402.5	148.5	15.44	29.78	48.79
337	402.5	148.5	15.44	29.78	48.79
338	402.2	148.8	15.44	29.81	48.83
339	401.4	149.6	15.44	29.88	48.94
340	402.5	148.5	15.44	29.78	48.80
341	403.3	147.7	15.44	29.71	48.69
342	402.9	148.1	15.44	29.74	48.73
343	402.1	148.9	15.44	29.82	48.85
344	401.7	149.3	15.44	29.86	48.91
345	402.0	149.0	15.44	29.82	48.86
346	402.1	148.9	15.44	29.81	48.84
347	402.4	148.6	15.44	29.79	48.81
348	402.5	148.5	15.44	29.78	48.79
349	402.9	148.1	15.44	29.74	48.74
350	403.4	147.6	15.44	29.70	48.68
351	403.6	147.4	15.44	29.68	48.65
352	403.6	147.4	15.44	29.68	48.65
353	402.8	148.2	15.44	29.75	48.76
354	402.8	148.2	15.44	29.75	48.75
355	402.8	148.2	15.44	29.75	48.75
356	403.6	147.4	15.44	29.68	48.64
357	403.9	147.1	15.44	29.65	48.61
358	404.1	146.9	15.44	29.63	48.58
359	404.2	146.8	15.44	29.62	48.56

# E4 KZLS 259C2 FULLY SPACED REFERENCE SITE CHANNEL STUDY

## REFERENCE

35 26 48.0 N.

97 48 00.0 W.

CLASS = C2

Current Spacings to 3rd Adj.

## DISPLAY DATES

DATA 06-05-09

SEARCH 06-08-09

----- Channel 259 - 99.7 MHz -----

Call		Channel	Location		Azi	Dist	FCC	Margin
KZLS	CP	259C3	Mustang	OK	146.7	18.9	176.5	-157.6
KZLS	LIC	259C1	Alva	OK	342.2	134.0	223.5	-89.5
KXBL	LIC	258C1	Henryetta	OK	73.6	157.7	157.5	0.23
KBZQ	LIC	258C3	Lawton	OK	215.9	116.9	116.5	0.37
AL2762	VAC	259C3	Tishomingo	OK	140.3	177.9	176.5	1.4
coordinates modified per BMPH-20070119AHJ and BPH-20080328AEH								
AU7963066VAC		259C2	Erick	OK	258.0	194.0	189.5	4.5
Counterproposal; Site Restriction: 15.9 km South.								
KYLV	LIC-D	205C1	Oklahoma City	OK	63.6	31.8	26.5	5.3
KLUR	LIC	260C1	Wichita Falls	TX	201.7	184.3	157.5	26.9
KCDL	LIC	257C3	Cordell	OK	270.3	107.9	55.5	52.4
KYKC	LIC	261C2	Byng	OK	124.7	115.1	57.5	57.6
KADA-FM	LIC	257A	Ada	OK	130.1	126.7	54.5	72.2
KYCU	LIC	206C1	Clinton	OK	270.2	108.0	26.5	81.5
KLOR-FM	RSV	258C1	Cheney	KS	359.3	241.2	157.5	83.7
One Step Application								
KXTH	LIC	206A	Seminole	OK	104.7	99.7	14.5	85.2
KLOR-FM	APP-N	258C1	Cheney	KS	0.3	246.2	157.5	88.7
One Step Application								
KJCM	LIC	262C3	Snyder	OK	233.0	147.1	55.5	91.6
KTCS-FM	LIC	260C	Fort Smith	AR	97.5	286.9	187.5	99.4

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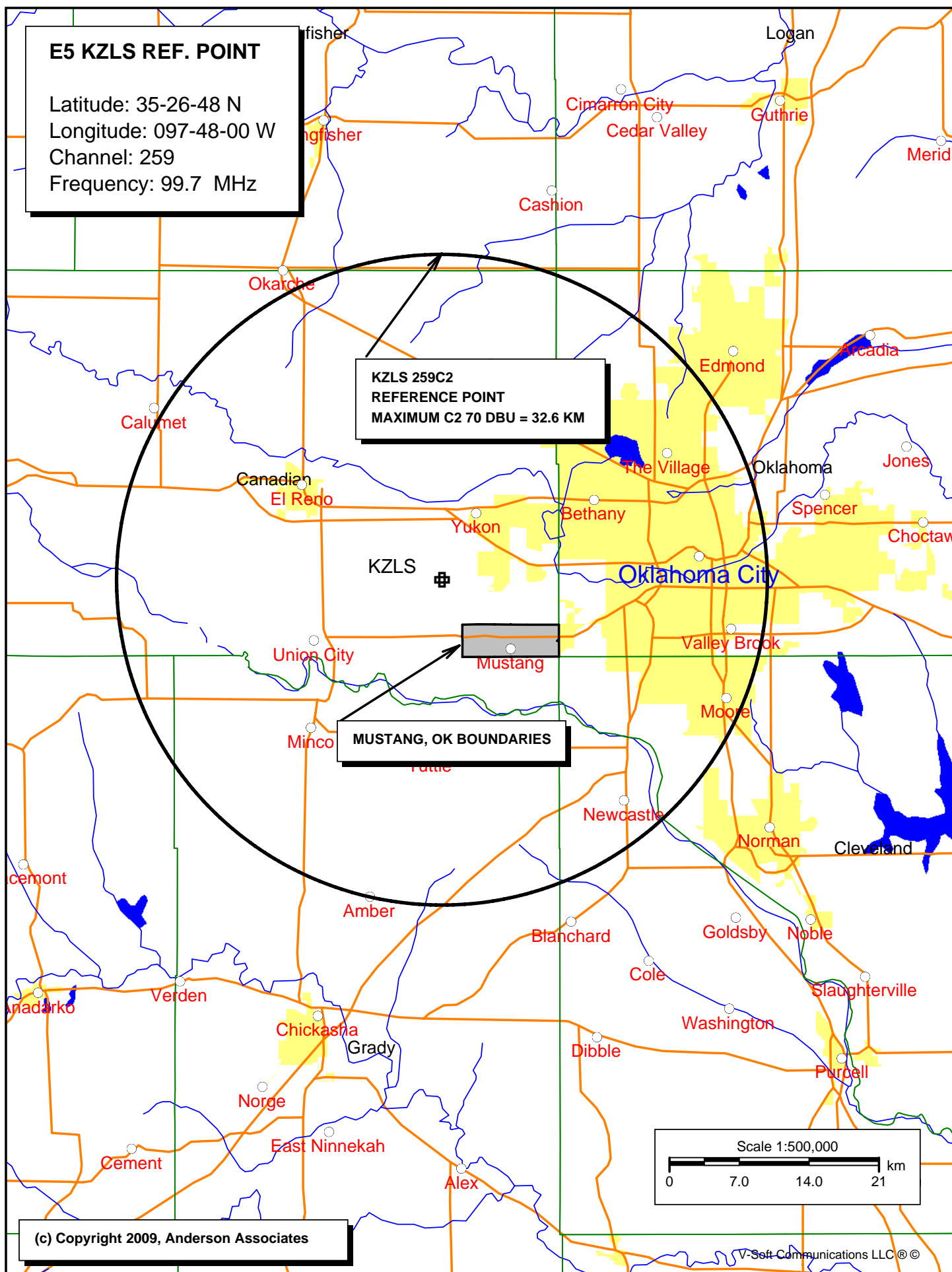
## E5 KZLS REF. POINT

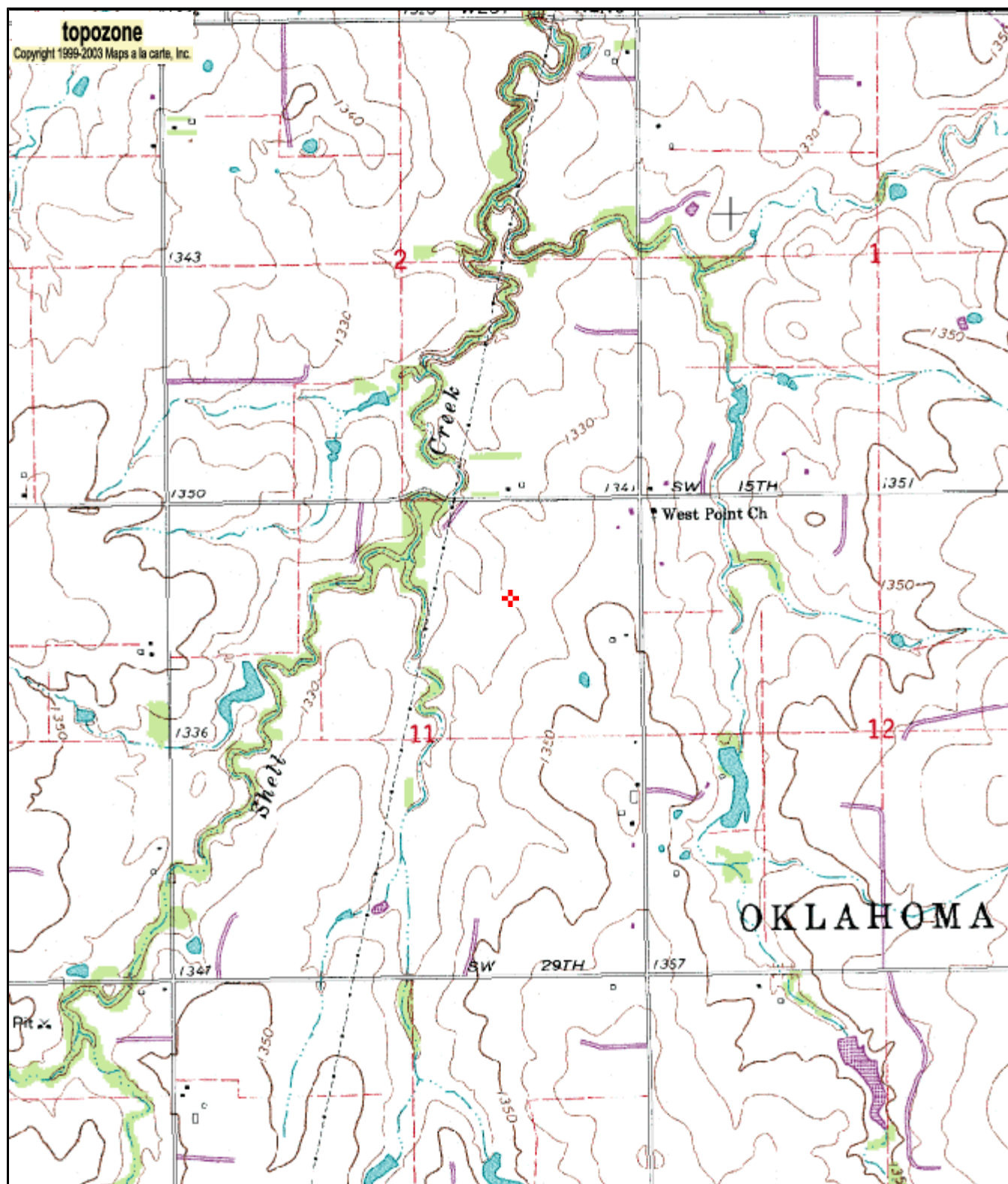
Latitude: 35-26-48 N  
Longitude: 097-48-00 W  
Channel: 259  
Frequency: 99.7 MHz

KZLS 259C2  
REFERENCE POINT  
MAXIMUM C2 70 DBU = 32.6 KM

MUSTANG, OK BOUNDARIES

Scale 1:500,000  
0 7.0 14.0 21 km





0 0.3 0.6 0.9 1.2 1.5 km  
0 0.2 0.4 0.6 0.8 1 mi

35° 26' 48"N, 97° 48' 00"W (NAD27)  
Elevation 1,330.5 ft / 405.5 m (USGS NED)  
**USGS Minco NE (OK) Quadrangle**  
Projection is UTM Zone 14 NAD83 Datum

M  
G  
M=5.06  
G=0.696