ATTACHMENT E

ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS AND COUNTERPROPOSAL
TICHENOR LICENSE CORPORATION

This Engineering Statement was prepared on behalf of Tichenor License Corporation ("TLC") in support of a Comments and Counterproposal in MM Docket No. 99-26. TLC is the licensee of KOVA(FM), Rosenberg, Texas (Channel 285A) and KLTO(FM), Galveston, Texas (Channel 285A). MM Docket No. 99-26 proposes the allotment of Channel 285A to Pitkin, Louisiana as its first local aural transmission service. In the alternative, TLC proposes the following:

Community	Present	Proposed	Comments
Missouri City, Texas	--	285C3	Channel 285C3 will be Missouri City's first commercial local aural transmission service[*]
Rosenberg, Texas	285A, KRTX(980 kHz)	KRTX(980 kHz)	KRTX is licensed to Rosenberg-Richmond, Texas on 980 kHz with 1 kW-D. KRTX holds a construction permit for operation with 5 kW-D and 4 kW-N, DA-2. TLC is the licensee of KRTX. It is expected that fulltime operation of KRTX will begin by mid-April of 1999.
Crystal Beach, Texas	268C3	268C3, 287A	Channel 287A will be Crystal Beach's second commercial local aural transmission service.

[*] KFCC, Bay City, Texas (1270 kHz) has proposed to change city of license to Missouri City, Texas (See FCC File No. BP-950804AC). However, on January 13, 1997, the FCC revoked the KFCC license. KFCC is understood to be operating subject to FCC action on its appeal.

Community	Present	Proposed	Comments
Galveston, Texas	285A, 293C, KHCB(1400 kHz), KGBC(1540 kHz)	293C, KHCB(1400 kHz), KGBC(1540 kHz)	KHCB and KGBC are both fulltime AM stations.
Moss Bluff, Louisiana	--	285C3	Channel 285C3 will be Moss Bluff's first local aural transmission service.
Lake Charles, Louisiana	219A*, 241C, 258C, 279C1, 287C2 KAOK(1400 kHz), KLCL(1470 kHz), KXZZ(1580 kHz)	219A*, 241C, 258C, 279C1 KAOK(1400 kHz), KLCL(1470 kHz), KXZZ(1580 kHz)	KAOK, KLCL and KXZZ are all fulltime AM stations. Channel 219A is used by non-commercial educational station KOJO(FM).

Figures 1 through 6 herein are allocation studies demonstrating the availability of the requested allotments as proposed above. As indicated in the maps included with these figures, in every case an area exists where predicted 70 dBu coverage can be provided over the entire proposed principal community. The reference coordinates for each of the proposed allotments are summarized in the table below:

Allotment Proposal	Reference Site	Description
Channel 285C3 at Missouri City, Texas	29-33-11N 95-26-35W	10 km east of Missouri City, Texas
Channel 287A at Crystal Beach, Texas	29-29-36N 94-31-33W	12 km northeast of Crystal Beach, Texas

Allotment Proposal	Reference Site	Description
Channel 285C3 at Moss Bluff, Louisiana	30-27-06N 93-08-39W	17 km north-northeast of Moss Bluff, Louisiana

Coverage of Urbanized Areas

The communities of Missouri City-TX and Moss Bluff-LA are contained within the urbanized areas of Houston-TX and Lake Charles-LA, respectively. Included herein as Figure 7 are maps showing the Houston and Lake Charles urbanized areas with depictions of the 70 dBu coverage of the subject station licensed facility and the proposed allotment facility.

The Houston 1990 Census urbanized area includes an area of approximately 3,150 sq. km. The proposed Missouri City 70 dBu allotment contour would encompass approximately 859 sq. km (27.3%) of the urbanized area. The licensed KOVA(FM) facility serves an estimated 119 sq. km (3.8%) of the urbanized area.

The Lake Charles 1990 Census urbanized area consists of an area of approximately 242 sq. km. The proposed Moss Bluff 70 dBu allotment contour would encompass approximately 55 sq. km (22.7%) of the urbanized area. The licensed KZWA(FM) facility serves approximately 179 sq. km (74.0%) of the urbanized area.

Gain and Loss Areas

The predicted gain and loss areas are illustrated in Figure 8. The table below is a summary of the population and area of the gain and loss areas. The population figures are based on 1990 Census block data.

Subject Area	Area (sq. km)	Population (1990)
Missouri City Proposal		
Net +1 aural services	3,691	1,858,461
Net 0 aural service	1,085	565,575
Net −1 aural service	689	44,784
Crystal Beach Proposal		
Net +1 aural service	1,507	1,768
Net 0 aural service	955	2,106
Net −1 aural service	849	105,225
Moss Bluff Proposal		
Net +1 aural service	2,662	17,307
Net 0 aural service	2,113	159,772
Net −1 aural service	6,143	180,640
Totals for Entire Proposal		
Net +1 aural services	7,860	1,877,536
Net 0 aural service	4,153	727,453
Net −1 aural service	7,681	330,649

Other Aural Services to Gain/Loss Areas

An analysis was conducted of other fulltime aural services. Figures 9 and 10 are maps depicting the other fulltime aural services available in the gain/loss areas. Figure 11 is a tabulation of all stations considered in the other services study.[‡] The count of other aural services available to an area is indicated with numbers on the maps. Areas with significantly greater the 5 services available are generally not noted except in a few locations for reference. As an example of how the results are to be interpreted: if the number 10 is shown in an area, then there are a count of 10 other fulltime aural services

[‡] In accordance with Commission requirements, availability of other commercial aural services was based on the 60 dBu contour for FM stations and the 0.5 mV/m contour for Class A AM stations and the nighttime interference-free contour for Class B and C AM stations.

in the subject area; and the proposal will add, subtract or leave unchanged this figure. If the number 10 is in an area shown as +1 in Figure 11, for example, then the proposal will add an 11th aural service to the subject area.

There are greater than five fulltime aural services available for the entire Missouri City and Crystal Beach proposals. The breakdown of other aural services available to the Moss Bluff proposal are summarized in the table below:

Subject Area	Area (sq. km)	Population (1990)
Missouri City Proposal		
Net +1 aural services	3,691	1,858,461
5+ other aural services	3,691	1,858,461
Net −1 aural service	689	44,784
5+ other aural services	689	44,784
Crystal Beach Proposal		
Net +1 aural services	1,507	1,768
5+ other aural services	1,507	1,768
Net −1 aural service	849	105,225
5+ other aural services	849	105,255
Moss Bluff Proposal		
Net +1 aural service	2,662	17,307
5+ other aural services	2,283	15,917
4 other aural services	196	973
3 other aural services	183	417
Net −1 aural service	6,143	180,640
5+ other aural services	5,972	178,698
4 other aural services	104	444
3 other aural services	67	1,498

1990 Census Data on Subject Communities

The following information was extracted from the 1990 Census information for the subject communities:

Community	Population	Comments
Lake Charles-LA	70,580	Urbanized
Lake Charles-LA Urbanized Area	119,067	
Moss Bluff-LA	8,039	Census Designated Place; include in Lake Charles urbanized area
Crystal Beach-TX	776	Based on 1980 Census; Crystal Beach unincorporated as of 1990 Census
Galveston-TX	59,070	58,263 urbanized; 807 rural
Houston-TX Urbanized Area	2,901,851	
Missouri City-TX	36,176	Included in Houston urbanized area
Rosenberg-TX	20,183	

Coverage Contours

Coverage contours for FM stations were calculated in accordance with the provisions of Section 73.313 of the FCC Rules. Distances to AM contours were based on

the non-directional RMS or standard radiation pattern. Ground conductivity data were obtained from FCC Figure M-3.

Louis Robert du Treil, Jr.

du Treil, Lundin & Rackley, Inc.
201 Fletcher Ave.
Sarasota, Florida 34237
(941)329-6000

March 29, 1999

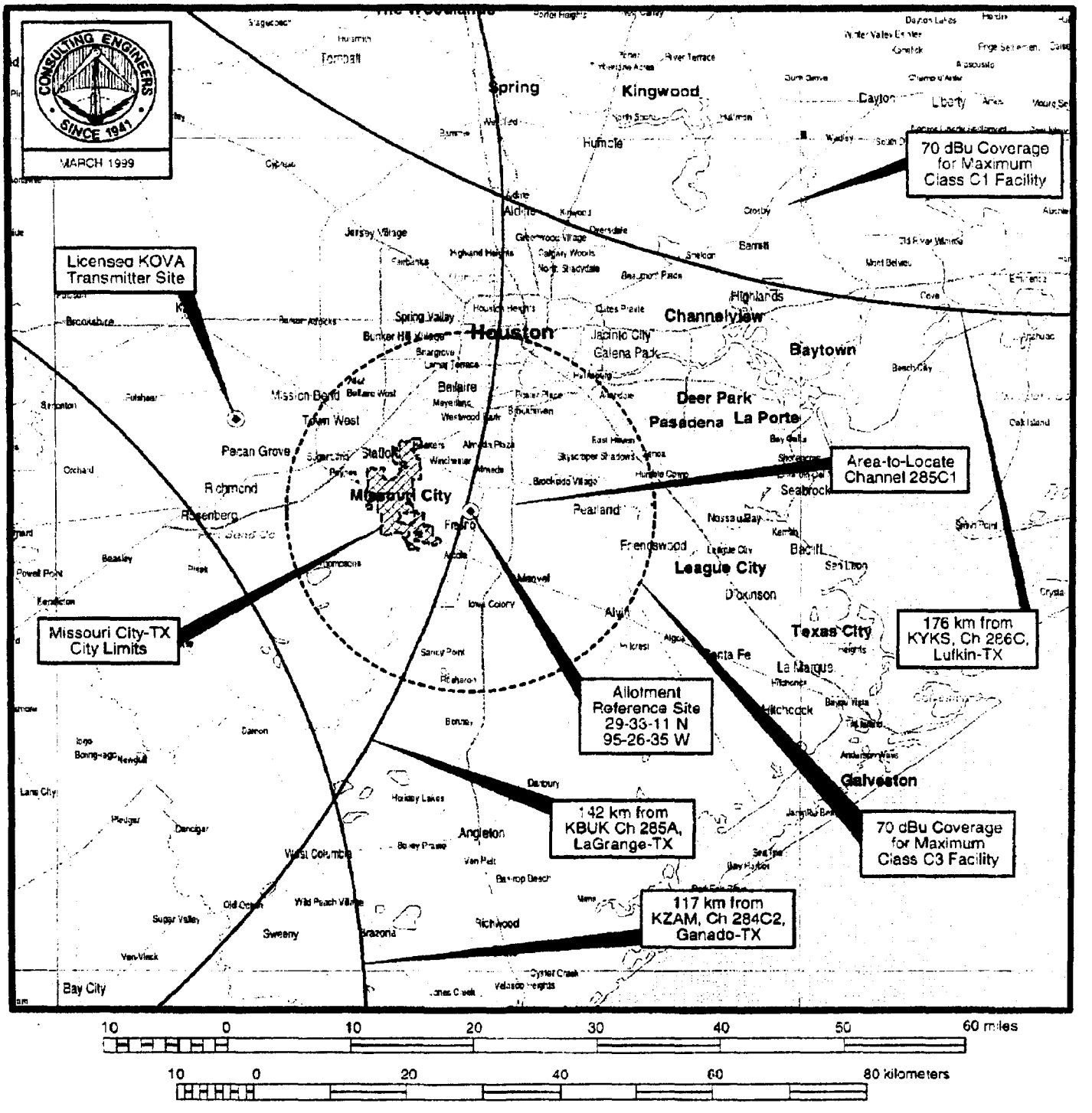
Figure 1

ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS AND COUNTERPROPOSAL
TICHENOR LICENSE CORPORATION

Allocation Study for Channel 285C1 at Rosenberg, Texas

Call Status	City State	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-Tru	Dist. (km)	Req. (km)
KZAM	Ganado		284C2	50.0	28-55-37	242.1	147.49	117
LIC	TX	BLH971202XC	104.7	140.0	96-46-54		30.49	CLEAR
KOVA	Rosenberg		285A	2.55	29-39-54	292.3	32.92	142
LIC	TX	BLH930831KE	104.9	107.0	95-45-28		-109.08	SHORT
(Licensed Rosenberg facility)								
KLTO	Galveston		285A	1.90	29-23-45	104.2	70.76	142
LIC	TX	BLH891116KF	104.9	123.0	94-44-10		-71.24	SHORT
(To migrate to Channel 287A at Crystal Beach-TX)								
KBUK	La Grange		285A	4.3	29-52-57	285.3	142.46	142
LIC	TX	BMLH970318KB	104.9	62.0	96-51-58		.46	CLOSE
KMAT	Seadrift		286C3	25.	28-25-44	218.3	158.50	99
CPM	TX	BMPH981113IB	105.1	100.0	96-26-54		59.50	CLEAR
KEZB	Hempstead		287C3	9.2	30-18-19	326.2	100.71	43
CPM	TX	BMPH951130IG	105.3	166.0	96-01-40		57.71	CLEAR

Figure 2



AREA-TO-LOCATE CHANNEL 285C3 AT MISSOURI CITY, TEXAS

TICHENOR LICENSE CORPORATION

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

MAR-29-1999 16:35 P.10/23

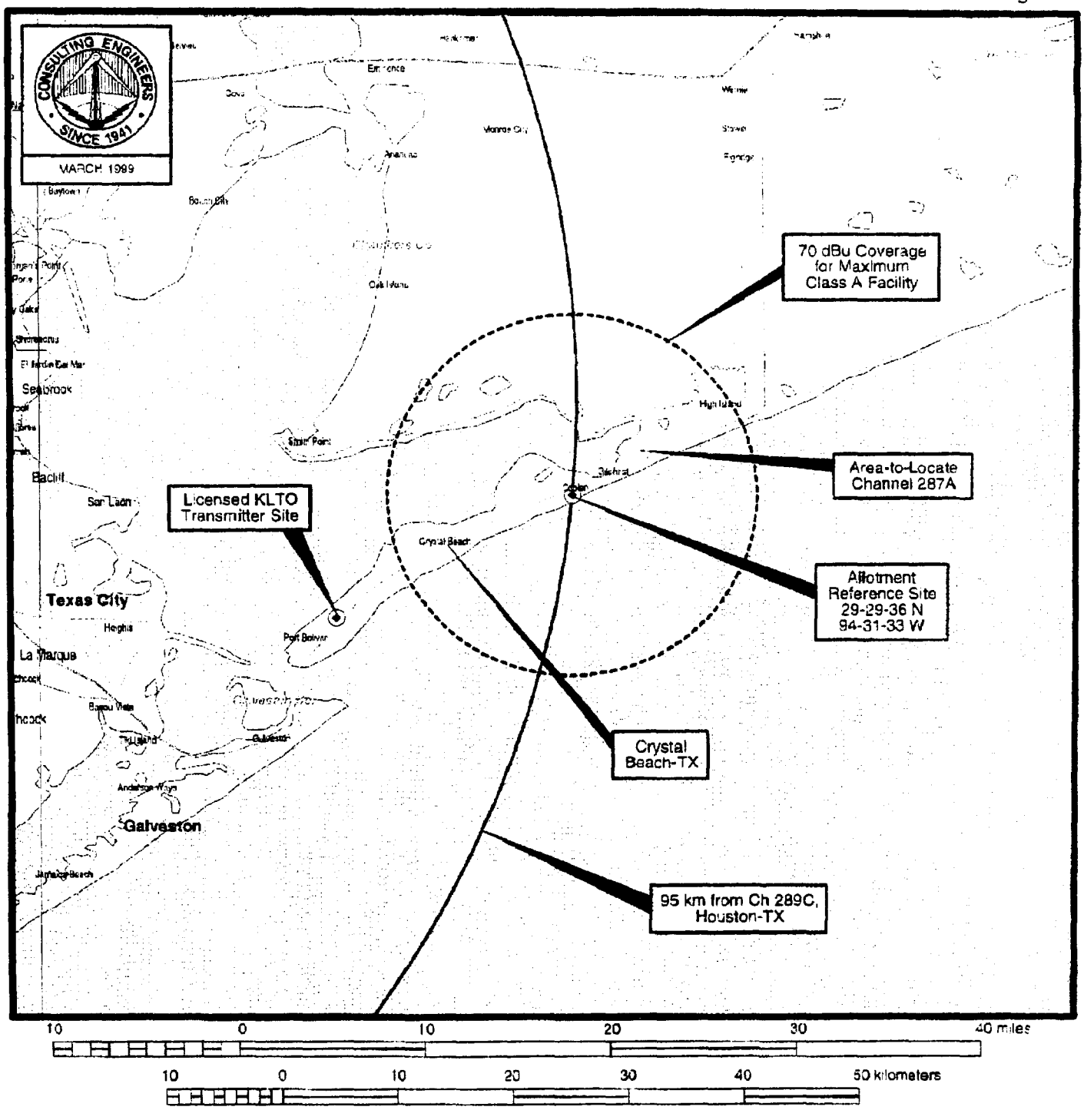
Figure 3

ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS AND COUNTERPROPOSAL
TICHENOR LICENSE CORPORATION

Allocation Study for Channel 287A at Crystal Beach, Texas

Call Status	City State	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-Tru	Dist. (km)	Req. (km)
KLTO	Galveston		285A	1.90	29-23-45	242.0	23.10	31
LIC	TX	BLH891116KF	104.9	123.0	94-44-10		-7.90	SHORT
(To migrate to Channel 287A at Crystal Beach-TX)								
KOVA	Missouri City		285C1		29-33-57	276.1	78.53	75
PADD	TX		104.9		95-19-57		3.53	CLOSE
(Missouri City-TX proposal)								
KZWA	Moss Bluff		285C3		30-27-06	51.0	170.49	42
PADD	LA		104.9		93-08-39		128.49	CLEAR
(Moss Bluff-LA proposal)								
KYKS	Lufkin		286C	100.	31-22-08	356.9	208.24	165
LIC	TX	BLH900827KA	105.1	325.0	94-38-45		43.24	CLEAR
KZWA	Lake Charles		287C2	50.0 DA	30-05-54	56.2	121.68	165
LIC	LA	BLH940602KB	105.3	150.0	93-28-33	SS	-44.32	SHORT
(To migrate to Channel 285C3 at Moss Bluff-TX)								
KEZB	Hempstead		287C3	9.2	30-18-19	302.3	170.73	142
CPM	TX	BMPH951130IG	105.3	166.0	96-01-40		28.73	CLEAR
KHCBFM	Houston		289C	100.	29-34-06	275.3	94.73	95
LIC	TX	BMLED911024KB	105.7	492.0	95-29-57		-.27	SHORT

Figure 4



AREA-TO-LOCATE CHANNEL 287A AT CRYSTAL BEACH, TEXAS

TICHENOR LICENSE CORPORATION

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

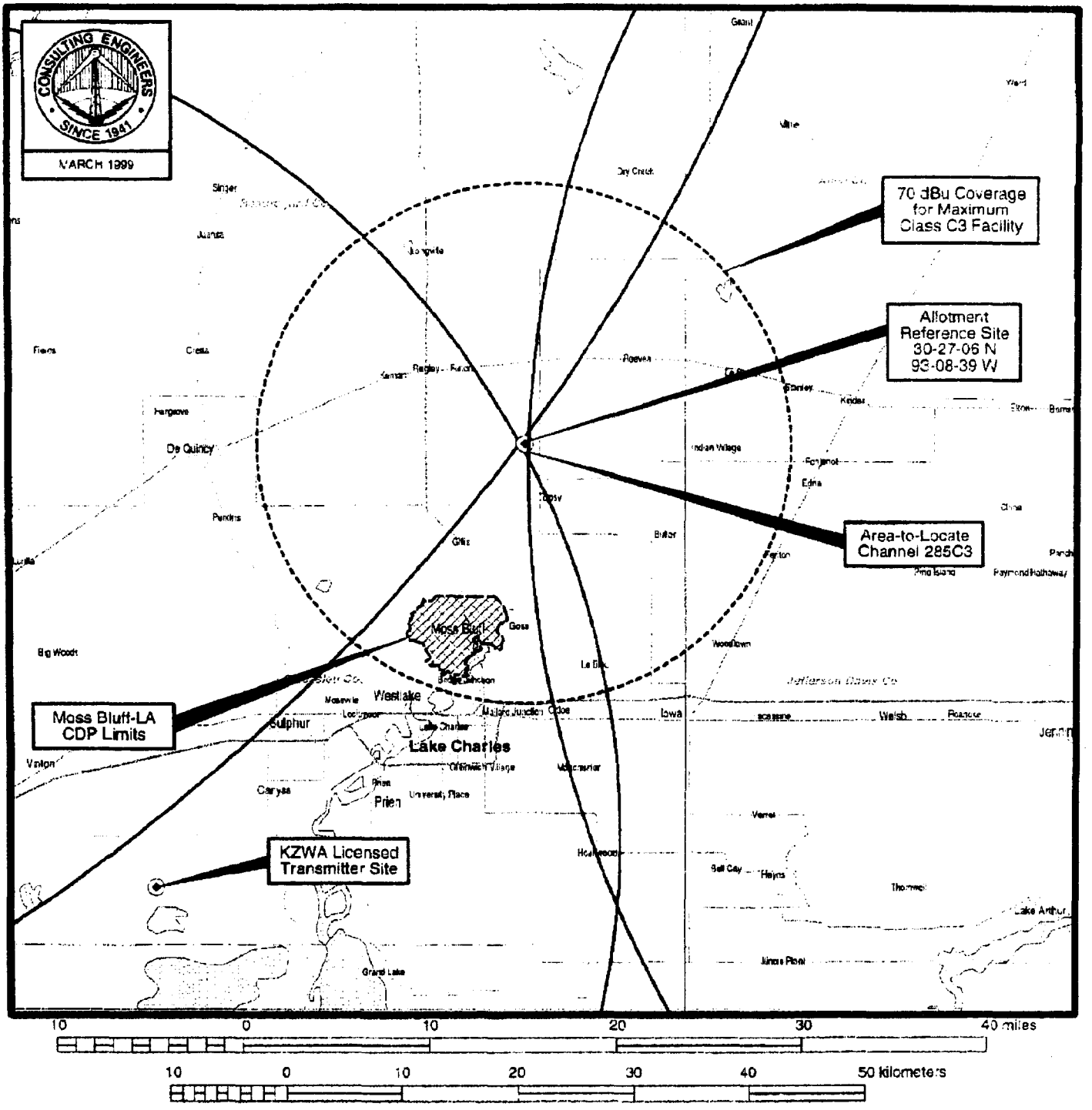
Figure 5

ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS AND COUNTERPROPOSAL
TICHENOR LICENSE CORPORATION

Allocation Study for Channel 285C3 at Moss Bluff, Louisiana

Call Status	City State	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist. (km)	Req. (km)
KEZP	Bunkie		282C3	18.0	31-05-14	46.5	103.01	43
LIC	LA	BLH910930KE	104.3	117.0	92-21-34		60.01	CLEAR
KKMY	Orange		283C1	100.	30-08-07	242.5	75.94	76
LIC	TX	BMLH980721KC	104.5	123.0	93-50-39		-.06	SHORT
KNEKFM	Washington		284C3	25.0	30-25-17	91.7	99.04	99
LIC	LA	BLH960223KB	104.7	100.0	92-06-50		.04	CLOSE
	Pitkin		285A		30-56-06	20.2	57.16	142
PADD	LA	RM9436	104.9	.0	92-56-12		-84.84	SHORT
(Mutually-exclusive with proposed Pitkin allotment, MM Docket No. 99-26)								
KROFFM	Abbeville		286C3	25.0	30-00-40	116.3	109.82	99
LIC	LA	BLH910829KC	105.1	89.0	92-07-21		10.82	CLOSE
KYKS	Lufkin		286C	100.	31-22-08	305.8	175.93	176
LIC	TX	BLH900827KA	105.1	325.0	94-38-45		-.07	SHORT
KZWA	Lake Charles		287C2	50.0 DA	30-05-54	219.1	50.53	56
LIC	LA	BLH940802KB	105.3	150.0	93-28-33	SS	-5.47	SHORT
(To migrate to Channel 285C3 at Moss Bluff-LA)								
KLTC	Crystal Beach		287A		29-29-36	231.7	170.49	42
PADD	TX		105.3		94-31-33		128.49	CLEAR
(Crystal Beach-TX proposal)								
KGJB	Eunice		288A	3.00	30-26-16	91.1	67.00	42
LIC	LA	BLH811103AP	105.5	91.0	92-26-49		25.00	CLEAR

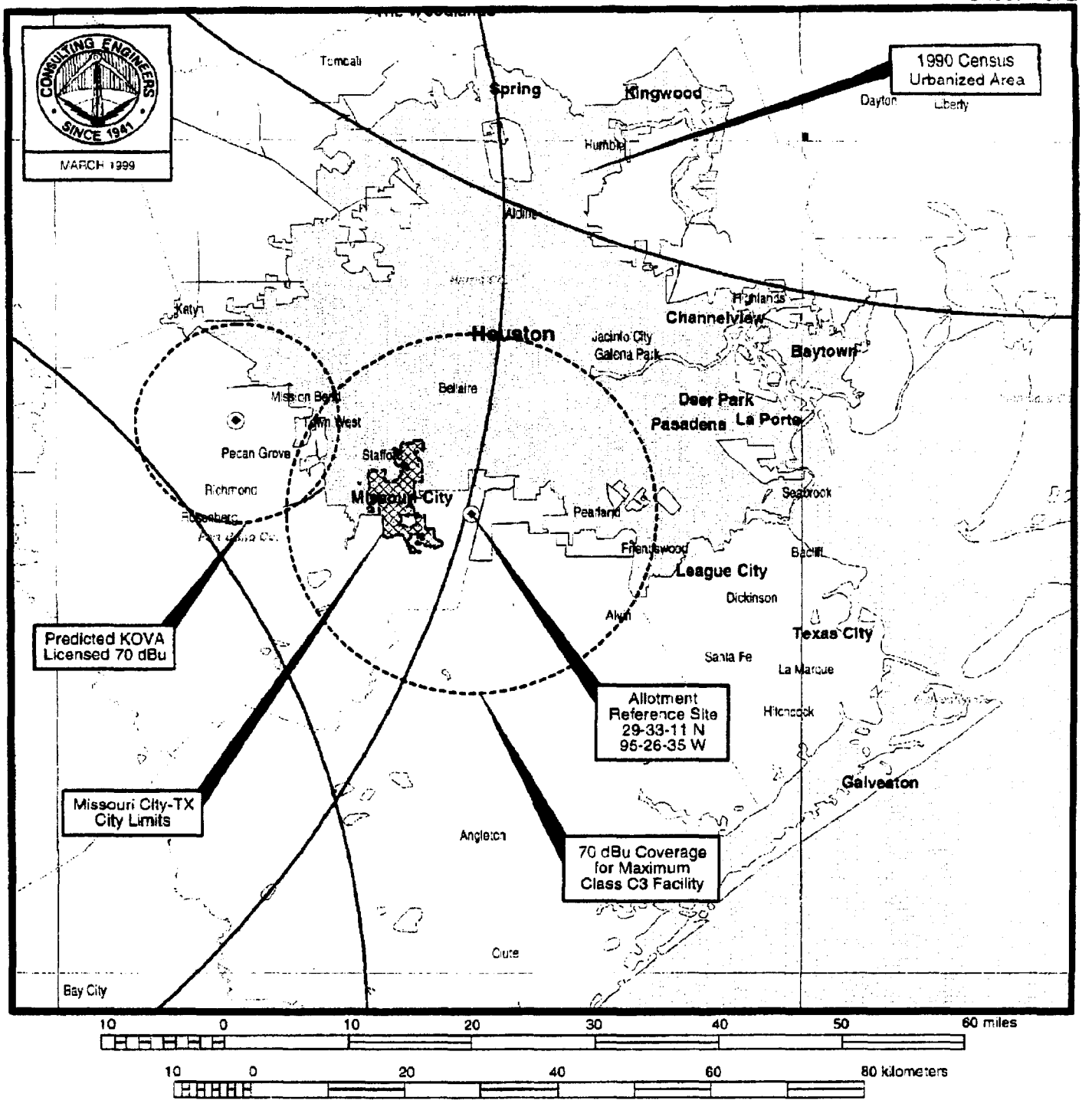
Figure 6



AREA-TO-LOCATE CHANNEL 285C3 AT MOSS BLUFF, LOUISIANA

TICHENOR LICENSE CORPORATION

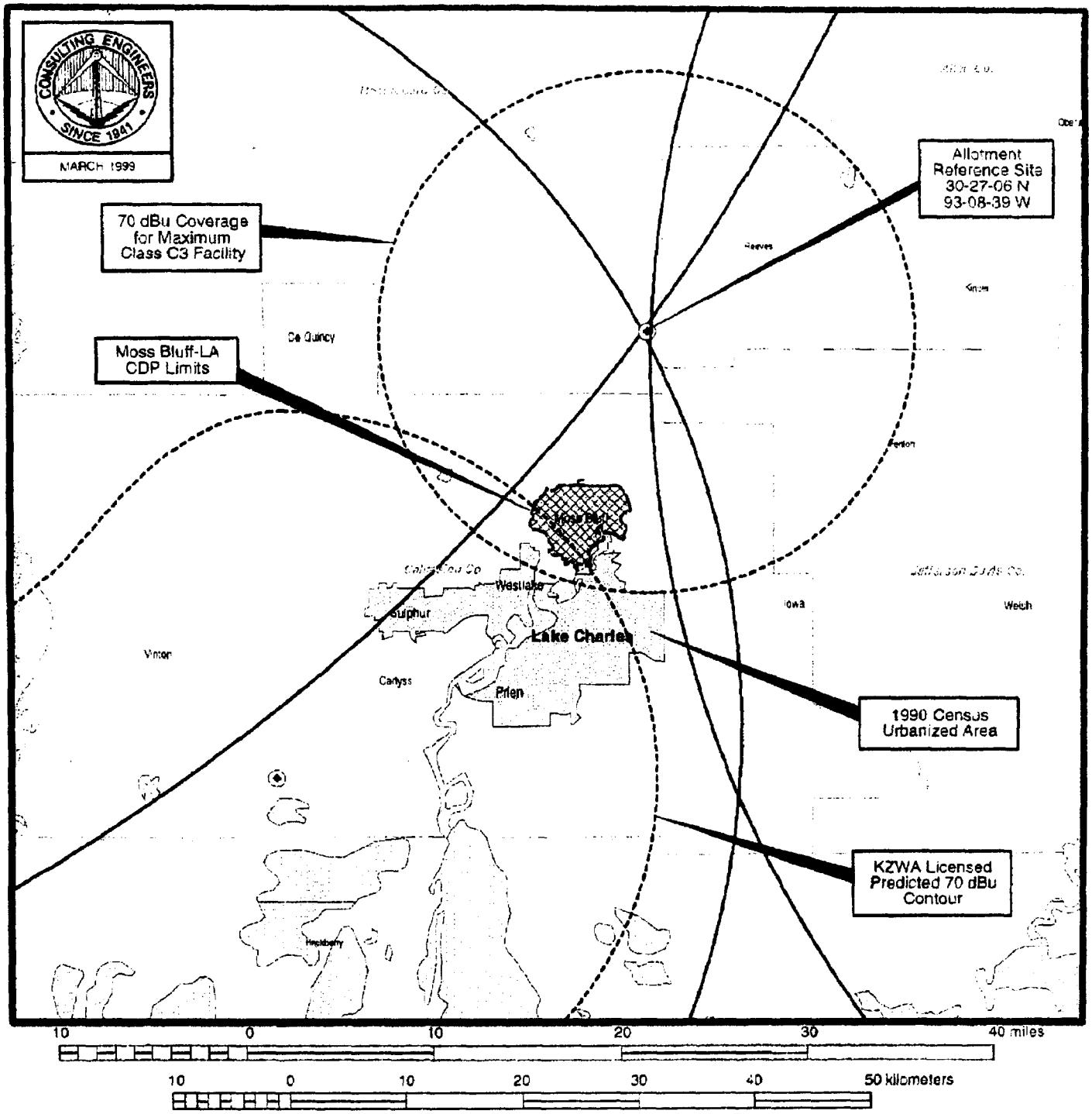
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



COVERAGE OF URBANIZED AREAS (HOUSTON-TX)

TICHENOR LICENSE CORPORATION

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

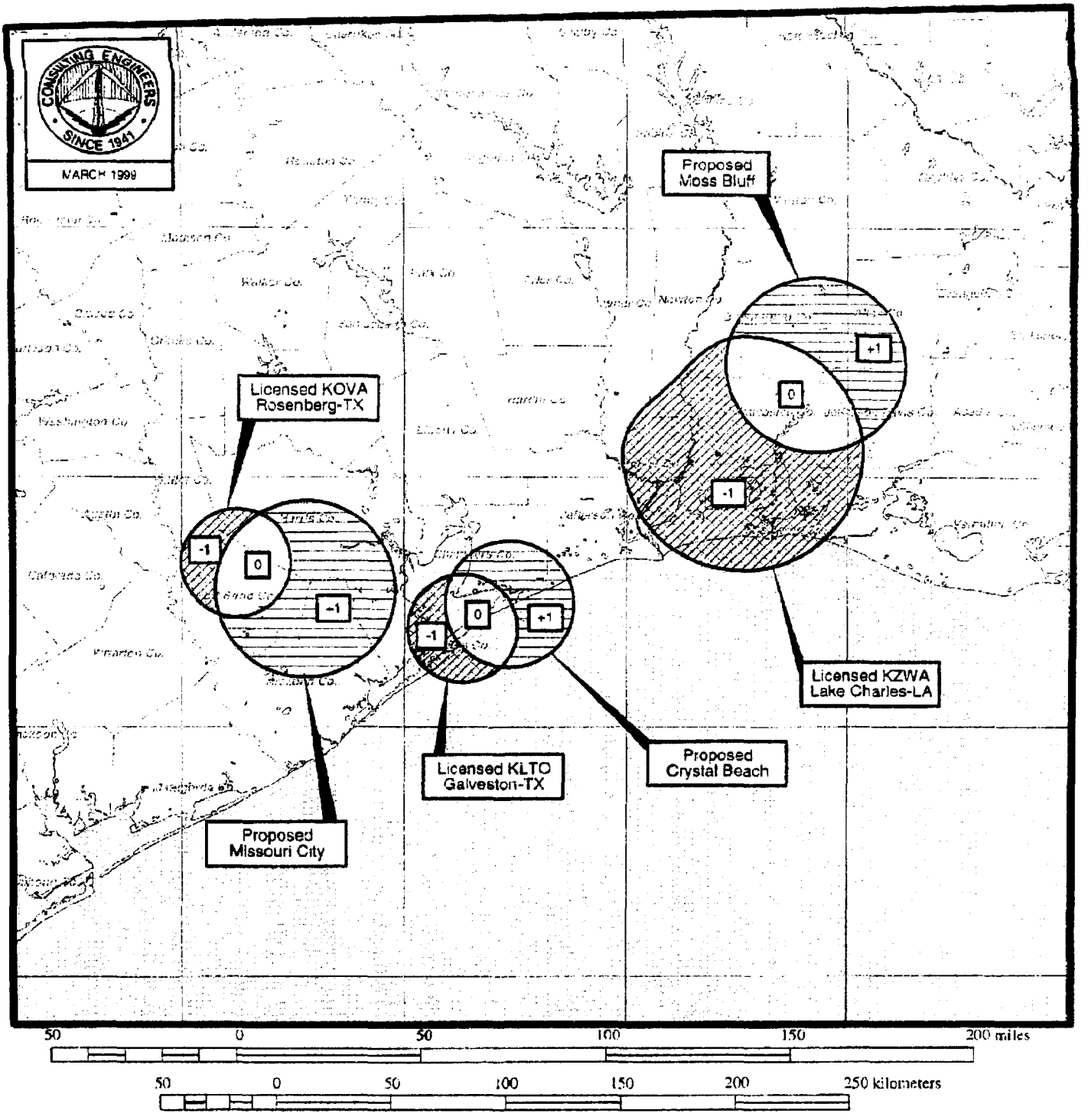


COVERAGE OF URBANIZED AREAS (LAKE CHARLES-LA)

TICHENOR LICENSE CORPORATION

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

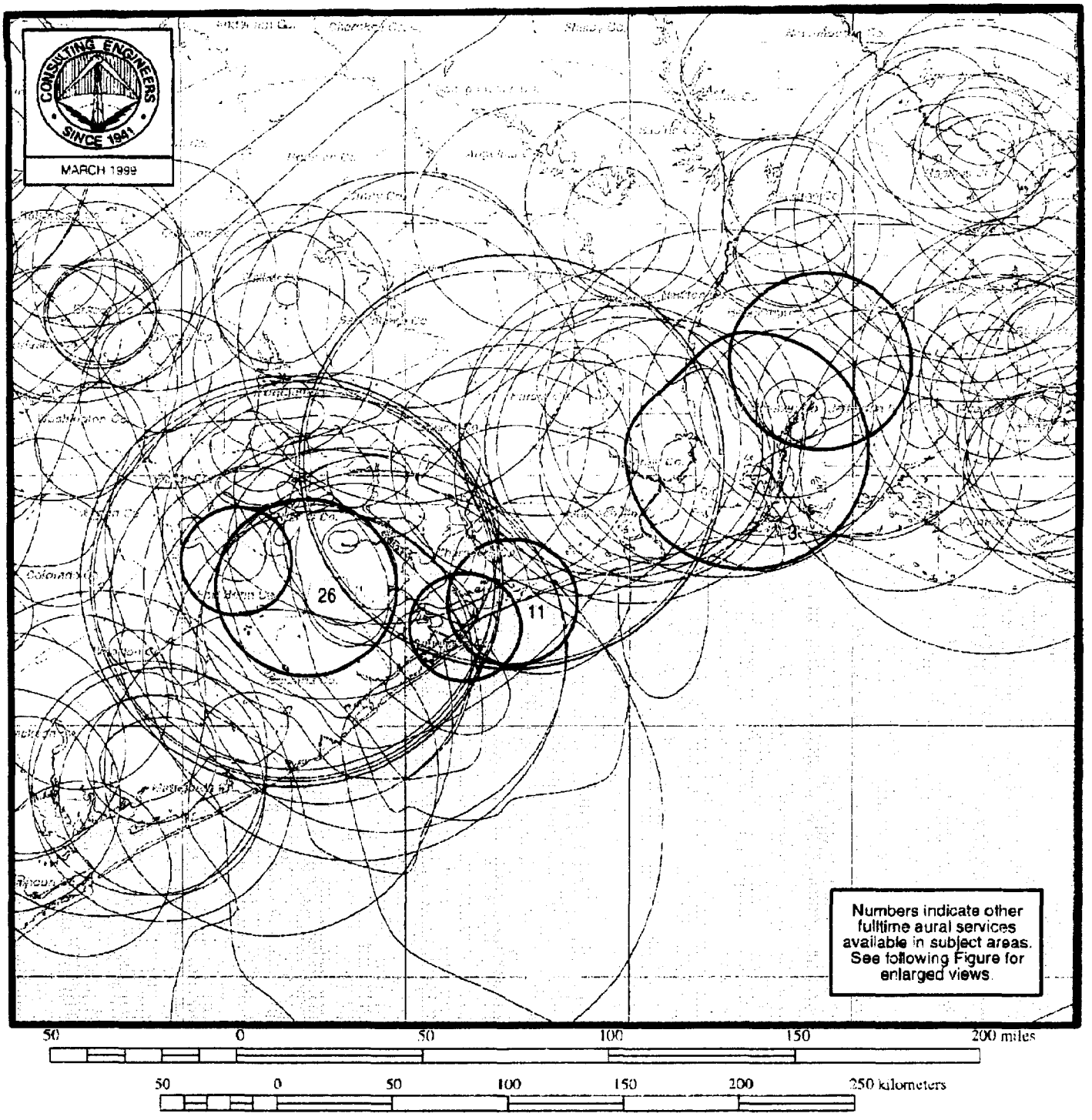
Figure 8



PREDICTED 60 DBU GAIN AND LOSS AREAS

TICHENOR LICENSE CORPORATION

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

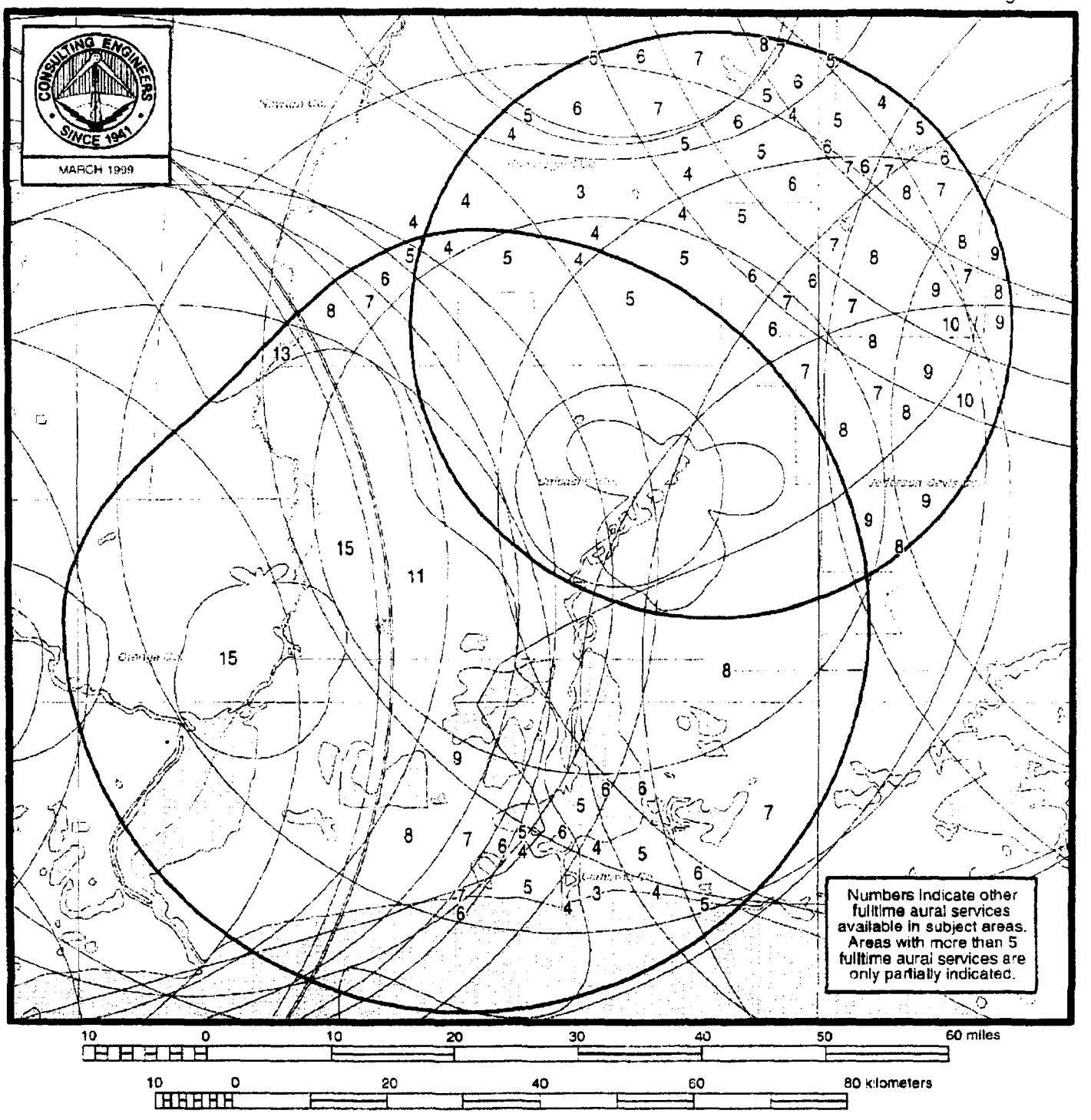


OVERVIEW OF OTHER AURAL SERVICES TO GAIN/LOSS AREAS

TICHENOR LICENSE CORPORATION

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 10



OTHER AURAL SERVICES TO GAIN/LOSS AREAS (ENLARGED VIEW OF MOSS BLUFF PROPOSAL)

TICHENOR LICENSE CORPORATION

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

ENGINEERING STATEMENT
IN SUPPORT OF COMMENTS AND COUNTERPROPOSAL
TICHENOR LICENSE CORPORATION

Tabulation of Stations Providing Fulltime
Aural Service in Subject Gain/Loss Areas

ID	Station
	AM Stations (nighttime interference-free contour)
1	KLVI, Beaumont, TX, 560 kHz (4.4 mV/m)
2	KLBJ, Austin, TX, 590 kHz (7.8 mV/m)
3	KILT, Houston, TX, 610 kHz (8.3 mV/m)
4	KSEV, Tomball, TX, 700 kHz (12.7 mV/m)
5	KTRH, Houston, TX, 740 kHz (6.9 mV/m)
6	KBME, Houston, TX, 790 kHz (8.2 mV/m)
7	WBAP, Fort Worth, TX, 820 kHz (0.5 mV/m)
8	WWL, New Orleans, LA, 870 kHz (0.5 mV/m)
9	KJOJ, Conroe, TX, 880 kHz (12.9 mV/m)
10	KYST, Texas City, TX, 920 kHz (24.2 mV/m)
11	KPRC, Houston, TX, 950 kHz (3.5 mV/m)
12	KRTX, Rosenberg-Richmond, TX, 980 kHz (21.4 mV/m)
13	KLAT, Houston, TX, 1010 kHz (12.9 mV/m)
14	KENR, Houston, TX, 1070 kHz (14.5 mV/m)
15	KRLD, Dallas, TX, 1080 kHz (0.5 mV/m)
16	KGOL, Humble, TX, 1180 kHz (9.7 mV/m)
17	WOAI, San Antonio, TX, 1200 kHz (0.5 mV/m)
18	KFCC, Bay City, TX, 1270 kHz (6.2 mV/m) (license revoked; on appeal)
19	KXYZ, Houston, TX, 1320 kHz (4.3 mV/m)
20	KCOH, Houston, TX, 1430 kHz (27.8 mV/m)
21	KAYD, Beaumont, TX, 1450 kHz (19.5 mV/m)
22	KLCL, Lake Charles, LA, 1470 kHz (5.6 mV/m)
23	KLVL, Pasadena, TX, 1480 kHz (6.4 mV/m)
24	KANI, Wharton, TX, 1500 kHz (8.2 mV/m)
25	KGBC, Galveston, TX, 1540 kHz (5.1 mV/m)
26	KXZZ, Lake Charles, LA, 1580 kHz (9.6 mV/m)

ID	Station
27	KYOK, Houston, TX, 1590 kHz (6.5 mV/m)
28	KOGT, Orange, TX, 1600 kHz (11.9 mV/m)
FM Stations	
1	KROK, De Ridder, LA, Channel 221
2	KRTS, Seabrook, TX, Channel 221
3	KMIA, New Ulm, TX, Channel 222
4	KKLB, Elgin, TX, Channel 223
5	KTFA, Groves, TX, Channel 223
6	KJEFFM, Jennings, LA, Channel 225
7	KKBQFM, Pasadena, TX, Channel 225
8	KLNC, Killeen, TX, Channel 227
9	KOVEFM, Port Arthur, TX, Channel 227
10	KLBJFM, Austin, TX, Channel 229
11	KKRW, Houston, TX, Channel 229
12	KQXYFM, Beaumont, TX, Channel 231
13	KSMB, Lafayette, LA, Channel 233
14	KLDE, Houston, TX, Channel 233
15	KAMX, Luling, TX, Channel 234
16	KYKR, Beaumont, TX, Channel 236
17	KTSR, College Station, TX, Channel 236
18	KKMJFM, Austin, TX, Channel 238
19	KIKKFM, Houston, TX, Channel 239
20	KYKZ, Lake Charles, LA, Channel 241
21	KHMX, Houston, TX, Channel 243
22	KHFIFM, Georgetown, TX, Channel 244
23	KZMZ, Alexandria, LA, Channel 245
24	KIOXFM, El Campo, TX, Channel 245
25	KKTL, Cleveland, TX, Channel 246
26	KAYDFM, Beaumont, TX, Channel 248
27	KBXX, Houston, TX, Channel 250
28	KVETFM, Austin, TX, Channel 251
29	KULMFM, Columbus, TX, Channel 252
30	KTJM, Port Arthur, TX, Channel 253
31	KRXT, Rockdale, TX, Channel 253
32	KKST, Oakdale, LA, Channel 254
33	KODA, Houston, TX, Channel 256
34	KHLA, Lake Charles, LA, Channel 258
35	KSHN, Liberty, TX, Channel 260
36	KRRVFM, Alexandria, LA, Channel 262
37	KILTFM, Houston, TX, Channel 262
38	KASE, Austin, TX, Channel 264
39	KRTXFM, Winnie, TX, Channel 264
40	KLOL, Houston, TX, Channel 266
41	KKGB, Sulphur, LA, Channel 267

ID	Station
42	KSTB, Crystal Beach, TX, Channel 268
43	KROXFM, Giddings, TX, Channel 268
44	KEAZ, De Ridder, LA, Channel 269
45	KXGJ, Bay City, TX, Channel 269
46	KQIS, Basile, LA, Channel 271
47	KMJQ, Houston, TX, Channel 271
48	KPEZ, Austin, TX, Channel 272
49	KMKS, Bay City, TX, Channel 273
50	KTCX, Beaumont, TX, Channel 273
51	KAJNFM, Crowley, LA, Channel 275
52	KLTN, Houston, TX, Channel 275
53	KJOJFM, Freeport, TX, Channel 277
54	KEYIFM, San Marcos, TX, Channel 278
55	KBIU, Lake Charles, LA, Channel 279
56	KVST, Willis, TX, Channel 279
57	KHLR, Cameron, TX, Channel 280
58	KRBEFM, Houston, TX, Channel 281
59	KQBT, Taylor, TX, Channel 282
60	KKMY, Orange, TX, Channel 283
61	KEZB, Hempstead, TX, Channel 287
62	KVVP, Leesville, LA, Channel 289
63	KHCBFM, Houston, TX, Channel 289
64	KFMK, Round Rock, TX, Channel 290
65	KTTX, Brenham, TX, Channel 291
66	KIOC, Orange, TX, Channel 291
67	KQQK, Galveston, TX, Channel 293
68	KKHT, Conroe, TX, Channel 295
69	KGSR, Bastrop, TX, Channel 296
70	KRAW, Lake Arthur, LA, Channel 298
71	KTBZ, Lake Jackson, TX, Channel 298
72	KXTJ, Beaumont, TX, Channel 300

the non-directional RMS or standard radiation pattern. Ground conductivity data were obtained from FCC Figure M-3.

Louis Robert du Treil, Jr.

du Treil, Lundin & Rackley, Inc.
201 Fletcher Ave.
Sarasota, Florida 34237
(941)329-6000

March 29, 1999

CERTIFICATE OF SERVICE

I, Alicia A. Staples, hereby certify that on March 29, 1999, a copy of the foregoing "Comments and Counterproposal" was sent by First Class mail, postage prepaid, to the following:

Henry E. Crawford, Esq.
1150 Connecticut Avenue, N.W.
Suite 900
Washington, D.C. 20036-4192
Counsel for Panther Broadcasting

Alicia A. Staples