

KLIF-FM MINOR MODIFICATION

This technical report has been developed in support of an application for a minor modification to KLIF-FM for a change in site and ERP.

The following exhibits are provided for the form 301 application:

- E1 KLIF-FM channel study
- E1A KMKT interference plot and FMOVER
- E1B KIKT interference plot
- E1C DA
- E2 70 dBu service to Haltom City, TX
- E2A Longley-Rice tabulation and discussion
- E3 ASR

Allocation analysis:

A channel study provided as E1 shows clearances to all facilities with the exception of KMKT and KIKT to which 73.215 is elected. Interference plots to the KMKT and KIKT facilities are provided as E1A and E1B. An effective radiated power of 16.5 kW is proposed at a HAAT of 264 meters yielding a 60 dBu contour of 52.2 km which rounds to the maximum class C2 60 dBu 52 km contour.

The KLIF-FM facility is proposed at an existing communications site at:

N 32-46-48 W 96-48-13 (NAD27) ASR #1064625.

Longley-Rice prediction is utilized to establish 70 dBu coverage of Haltom City, TX:

Exhibit E-2 shows the 227C2 facility will place a 70 dBu contour encompasses 99% of the area and 99.3% of the population of the Haltom City, TX city boundary using the Longley-Rice “first occurrence” contour calculated with the V-Soft Probe 4 software and the FCC 30 second terrain database. Probe 4 is based on the NTIA Longley-Rice

algorithm, and its use has been regularly accepted by the Commission in allocation proceedings in the past.

Use of Longley-Rice is permitted based on Commission policy and the recent Hardinsburg, KY ruling, FCC DA 10-1760, which allows its use when the Longley-Rice predicted 70 dBu exceeds the FCC predicted 70 dBu by at least 10% on a radial through the community of license. Exhibit E2A includes a tabulation of the FCC and Longley-Rice 70 dBu contours through the range of azimuths that encompass the entire Haltom City, TX city boundary. The Longley-Rice 70 dBu exceeds the FCC 70 dBu by more than 10% at all azimuths including the 273 degree azimuth directly through the city reference point..

Antenna and RF calculation:

The proposed 227C2 16.5 kW facility will use a four bay Shively 6810, 0.625 wavelength circularly polarized antenna with a center of radiation at 284 meters above ground and 6.5 meters above the Bank of America Building roof and work surface. The RF contribution of the facility was calculated using the Commission's FMMODEL program to be $865.2 \mu\text{W}/\text{cm}^2$ on the roof or 86.5% of the occupation limit for restricted areas and 121.7 at the highest occupied floor which is the communications data center on the 74th floor. Factoring in the shielding effect of the metal roof and intervening floors, this level is expected to be much lower. The applicant will suspend operations or reduce power as required to prevent RF exposure to workers on the building roof.

Conclusion:

It is concluded that the minor modification of the KLIF-FM licensed facility is in full compliance with the Commission rules and policies.

Charles M. Anderson

April 25, 2013

E1 CHANNEL STUDY

REFERENCE

32 46 48.0 N.

CLASS = C2

96 48 13.0 W.

Current Spacings to 3rd Adj.

DISPLAY DATES

DATA 04-23-13

SEARCH 04-23-13

----- Channel 227 - 93.3 MHz -----

Call		Channel	Location		Azi	Dist	FCC	Margin
KLIF-FM	LIC-Z	227C2	Haltom City	TX	269.4	11.16	190.0	-178.3
KIKT%	LIC-N	228A	Greenville	TX	57.1	83.02	106.0	-22.5(1)
(1) No protection required. Operating under implied STA.								
KMKT	LIC	226C3	Bells	TX	18.2	106.56	117.0	-9.9(2)
(2) 73.215 elected.								
KIKT	RSV-A	228C3	Cooper	TX	61.2	106.87	117.0	-9.6(3)
(3) Protection of allocation point not required after CP grant.								
KIKT	CP -N	228C3	Cooper	TX	64.4	115.09	117.0	-1.4(4)
(4) 73.215 elected.								
KGSR	LIC	227C	Cedar Park	TX	206.5	253.95	249.0	5.5
KNOR	LIC-N	229C0	Krum	TX	324.3	96.61	89.0	8.1
KTYL-FM	LIC-N	226C1	Tyler	TX	107.9	183.42	158.0	25.9
KSTV-FM	LIC-D	226C3	Dublin	TX	244.9	154.32	117.0	37.8

% = Station fails 73.215.

RSV-R = reserved - needs protection, RSV-A = allocation.

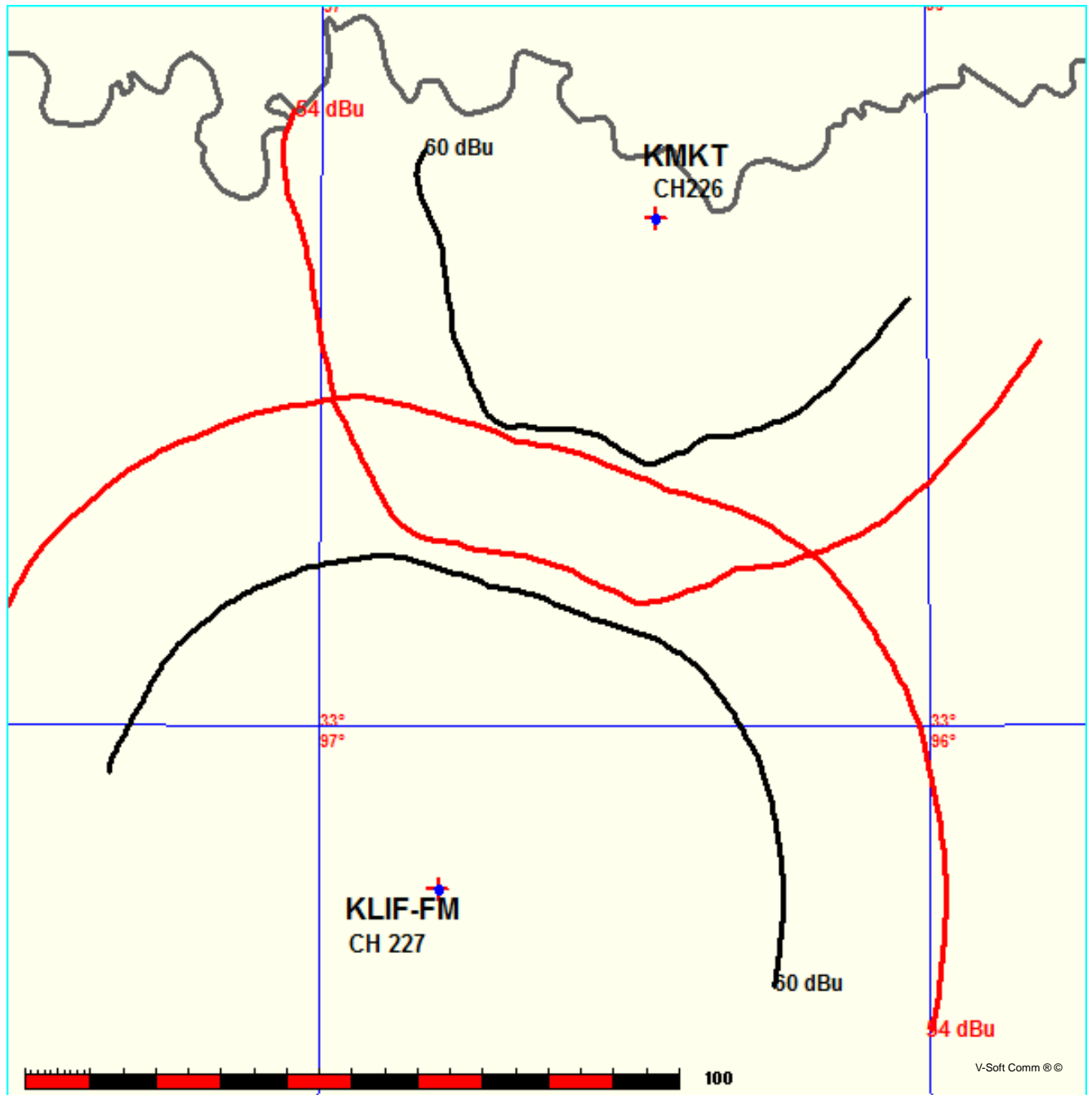
All separation margins include rounding

E1A KLIF-FM - KMKT INTERFERENCE PLOT
Susquehanna Radio Corp.

FMCommander Single Allocation Study - 04-25-2013 - FCC NGDC 30 Sec
KLIF-FM's Overlaps (In= 3.91 km, Out= 1.43 km)

KLIF-FM CH 227 C2 73.215 Z
Lat= 32 46 48.0, Lng= 96 48 13.0
16.5 kW 264.4 M HAAT, 414 M COR
Prot.= 60 dBu, Intef.= 54 dBu

KMKT^ CH 226 C3 BLH19970815KB
Lat= 33 41 31.0, Lng= 96 26 36.0
Max CIs: 25.0 kW 100 M HAAT, 288 M COR
Prot.= 60 dBu, Intef.= 54 dBu



E1A1 FMOVER ANALYSIS

Terrain Data: FCC NGDC 30 Sec

KMKT BLH19970815KB
(^ Max Class Parameters)
Channel = 226C3
Max ERP = 25 kW
RCAMSL = 288 M
N. Lat. 33 41 31.0
W. Lng. 96 26 36.0

KLIF-FM
Channel = 227C2
Max ERP = 16.5 kW
RCAMSL = 414 M
N. Lat. 32 46 48.0
W. Lng. 96 48 13.0

Protected 60 dBu

Interfering 54 dBu

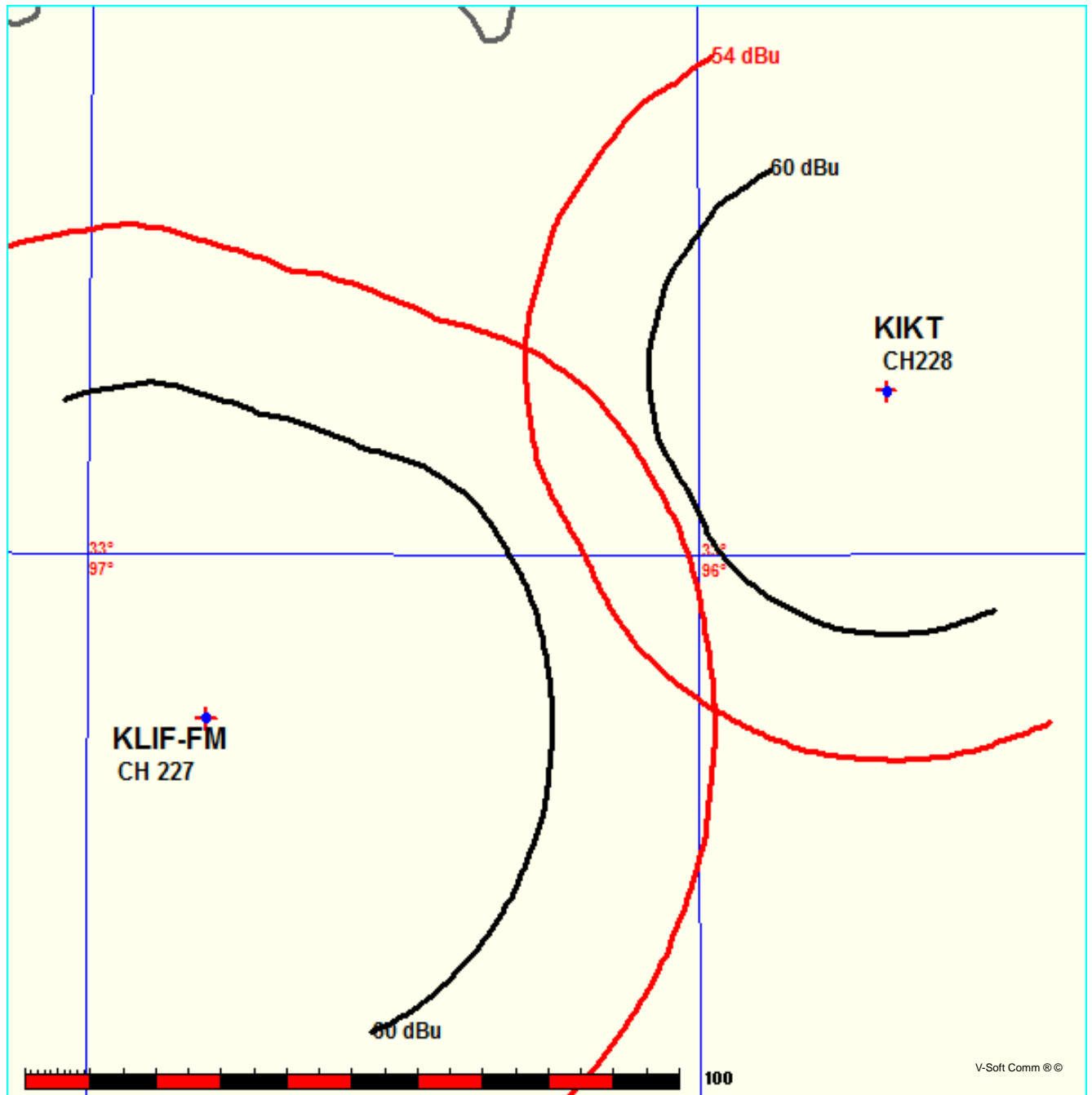
Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
190.0	025.0000	0079.6	035.3	022.3	010.0386	0247.6	071.8	52.99	
191.0	025.0000	0078.4	035.1	021.8	010.0386	0247.7	072.0	52.95	
192.0	025.0000	0076.8	034.7	021.3	010.0386	0247.8	072.2	52.89	
193.0	025.0000	0075.3	034.4	020.8	010.0386	0248.1	072.4	52.82	
194.0	025.0000	0074.1	034.2	020.3	010.0386	0248.2	072.6	52.77	
195.0	025.0000	0073.8	034.1	019.8	010.0386	0248.4	072.6	52.77	
196.0	025.0000	0073.8	034.1	019.4	010.0386	0248.5	072.5	52.79	
197.0	025.0000	0074.1	034.2	018.9	010.0386	0248.5	072.4	52.82	
198.0	025.0000	0074.3	034.2	018.4	010.0386	0248.5	072.4	52.84	
199.0	025.0000	0074.5	034.2	018.0	010.0386	0248.3	072.3	52.85	
200.0	025.0000	0074.5	034.3	017.5	010.0386	0248.0	072.3	52.83	
201.0	025.0000	0074.7	034.3	017.0	010.0386	0247.7	072.3	52.83	
202.0	025.0000	0075.2	034.4	016.5	010.0386	0247.5	072.3	52.84	
203.0	025.0000	0076.3	034.6	016.1	010.0386	0247.2	072.1	52.88	
204.0	025.0000	0077.6	034.9	015.6	010.0386	0247.1	071.9	52.94	
205.0	025.0000	0079.0	035.2	015.0	010.0386	0247.0	071.7	53.01	
206.0	025.0000	0080.3	035.5	014.5	010.0386	0246.9	071.6	53.05	
207.0	025.0000	0081.7	035.7	014.0	010.0386	0246.7	071.4	53.09	
208.0	025.0000	0083.2	036.0	013.4	010.0386	0246.3	071.3	53.13	
209.0	025.0000	0084.8	036.4	012.9	010.0386	0245.8	071.2	53.16	
210.0	025.0000	0086.3	036.6	012.3	010.0386	0245.3	071.1	53.17	
211.0	025.0000	0087.5	036.9	011.8	010.0386	0244.7	071.1	53.15	
212.0	025.0000	0088.7	037.1	011.3	010.0386	0244.2	071.1	53.13	
213.0	025.0000	0090.4	037.4	010.7	010.0386	0243.9	071.0	53.14	
214.0	025.0000	0093.0	037.9	010.0	010.0386	0243.5	070.8	53.19	
215.0	025.0000	0095.9	038.4	009.4	010.2302	0243.0	070.6	53.32	
216.0	025.0000	0098.7	038.9	008.7	010.4360	0242.7	070.5	53.44	
217.0	025.0000	0100.8	039.2	008.1	010.6301	0242.4	070.5	53.50	
218.0	025.0000	0102.1	039.4	007.5	010.8105	0242.3	070.7	53.52	
219.0	025.0000	0102.9	039.5	007.0	010.9794	0242.0	070.9	53.49	
220.0	025.0000	0103.2	039.6	006.5	011.1382	0241.6	071.3	53.43	
221.0	025.0000	0103.2	039.6	006.1	011.2865	0241.0	071.7	53.34	
222.0	025.0000	0102.6	039.5	005.7	011.4177	0240.6	072.1	53.21	
223.0	025.0000	0101.3	039.3	005.3	011.5269	0240.1	072.7	53.04	
224.0	025.0000	0099.5	039.0	005.1	011.6207	0239.8	073.4	52.85	
225.0	025.0000	0097.7	038.7	004.8	011.7043	0239.5	074.0	52.65	

E1B KLIF-FM - KIKT INTERFERENCE PLOT

FMCommander Single Allocation Study - 04-25-2013 - FCC NGDC 30 Sec
KLIF-FM's Overlaps (In= 9.86 km, Out= 3.68 km)

KLIF-FM CH 227 C2 73.215 Z
Lat= 32 46 48.0, Lng= 96 48 13.0
16.5 kW 264.4 M HAAT, 414 M COR
Prot.= 60 dBu, Intef.= 54 dBu

KIKT-C CH 228 C3 73.215 N BPH20121126ABU
Lat= 33 13 16.0, Lng= 95 41 20.0
12.5 kW 119.4 M HAAT, 270 M COR
Prot.= 60 dBu, Intef.= 54 dBu



Graph is Relative Field

Azi	Field	dBk	kw
000	0.900	11.260	13.365
010	0.780	10.017	10.039
020	0.780	10.017	10.039
030	0.780	10.017	10.039
040	0.900	11.260	13.365
050	1.000	12.175	16.500
060	1.000	12.175	16.500
070	1.000	12.175	16.500
080	1.000	12.175	16.500
090	1.000	12.175	16.500
100	1.000	12.175	16.500
110	1.000	12.175	16.500
120	1.000	12.175	16.500
130	1.000	12.175	16.500
140	1.000	12.175	16.500
150	1.000	12.175	16.500
160	1.000	12.175	16.500
170	1.000	12.175	16.500
180	1.000	12.175	16.500
190	1.000	12.175	16.500
200	1.000	12.175	16.500
210	1.000	12.175	16.500
220	1.000	12.175	16.500
230	1.000	12.175	16.500
240	1.000	12.175	16.500
250	1.000	12.175	16.500
260	1.000	12.175	16.500
270	1.000	12.175	16.500
280	1.000	12.175	16.500
290	1.000	12.175	16.500
300	1.000	12.175	16.500
310	1.000	12.175	16.500
320	1.000	12.175	16.500
330	1.000	12.175	16.500
340	1.000	12.175	16.500
350	1.000	12.175	16.500

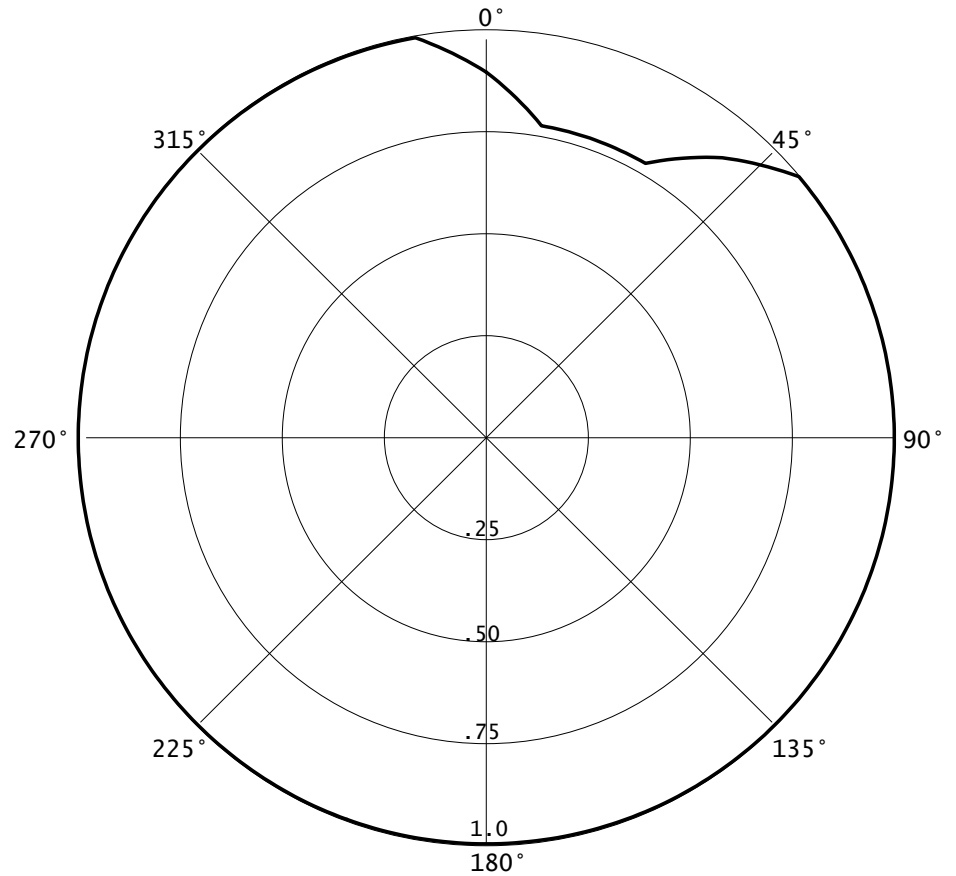



EXHIBIT E2

 > 70.0 dBu

FCC 60 DBU

HALTOM CITY

LONGLEY-RICE
"FIRST OCCURRENCE"
70 DBU CONTOUR
(RED) AND

70 DBU CELLULAR (BLUE)
COVERS 99% OF THE AREA
AND 99.3% OF THE POPULATION
OF HALTOM CITY

Scale 1:250,000

0 3 6 9 km

KLIF-FM

BLH20010522AAR
Latitude: 32-46-48 N
Longitude: 096-48-13 W
ERP: 16.50 kW
Channel: 227
Frequency: 93.3 MHz
AMSL Height: 414.0 m
Elevation: 130.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

KLIF-FM

Dallas

ANDERSON ASSOCIATES

V-Soft Communications LLC ©

E2A LONGLEY-RICE AND FCC 70 DBU TABULATION

Type of contour: Signal Calculated

of Radials Calculated: 360

Using the first occurrence method at 70.0 dBu - FCC 30 second terrain

Transmitter Information:

Call Letters: KLIF-FM

File Number: BLH20010522AAR

Latitude: 32-46-48 N

Longitude: 096-48-13 W

ERP: 16.50 kW

Channel: 227

Frequency: 93.3 MHz

AMSL Height: 414.0 m

Elevation: 130.0 m

HAAT: 264.04 m

Horiz. Antenna Pattern: Omni

Vert. Elevation Pattern: No

Azimuth (deg)	FCC 70 dBu km	LR 70 dBu km	% Increase	HAAT m
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270.0	34.17	48.50	42.0	283.3
271.0	34.19	49.10	43.6	283.6
272.0		58.10 (53.61) *	56.8	283.9
273.0		57.40 (53.64)	56.8	284.2 **
274.0		56.70 (53.68)	56.7	284.8
275.0		56.10 (53.72)	56.7	285.4
276.0		55.10 (53.76)	56.6	285.9
277.0		55.10 (53.79)	56.6	286.4
278.0		58.80 (53.82)	56.6	286.9
279.0		58.90 (53.82)	56.6	286.8
280.0		59.00 (53.80)	56.6	286.6
281.0		46.00	34.0	285.9
282.0		46.00	34.2	285.0

(*) Longley-Rice 70 dBu truncated to FCC 60 dBu value.

(**) Azimuth to Haltom City reference point.

E3 Registration 1064625

 [Map Registration](#)

Registration Detail

Reg Number	1064625	Status	Constructed
File Number	A0679567	Constructed	03/01/1985
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type BPIPE - Building with Pipe

Location (in NAD83 Coordinates)

Lat/Long	32-46-48.0 N 096-48-14.0 W	Address	901 MAIN STREET
City, State	DALLAS , TX		
Zip	75202	County	DALLAS
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
130.0	287.0
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
417.0	281.0

Painting and Lighting Specifications

FCC Paragraphs 3, 21

FAA Notification

FAA Study	85-ASW-0725-OE	FAA Issue Date	03/16/1987
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Owner & Contact Information

FRN	0019662766	Owner Entity Type
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Owner

TELECOMMUNICATION PROPERTIES INC	P: (214)231-3348
Attention To: JAMES T CHILES	F:
901 MAIN STREET; SUITE 2600	E:
DALLAS , TX 75202	

Contact

P:
F:
E:

Last Action Status

Status	Constructed	Received	03/19/2010
Purpose	Admin Update	Entered	03/19/2010
Mode	Interactive		