



**STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
A MINOR MODIFICATION OF A  
POST REPACK CONSTRUCTION PERMIT  
FILE # 0000025122  
KMEG - SIOUX CITY, IOWA  
DTV - CH. 32 - 1000 kW - 611 m HAAT**

Prepared for: WAITT BROADCASTING, INC.

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

**GENERAL**

This office has been authorized by WAITT BROADCASTING, INC., licensee of KMEG, channel 39, facility ID number 39665, licensed to Sioux City, Iowa, to prepare this statement, FCC Form 2100, Schedule A, its technical sections, and the associated exhibits in support of an application for a minor modification of its post-reassignment construction permit, file # 0000025122, that authorizes KMEG to use channel 32 for its post-reassignment broadcasting. The instant application proposes only to increase KMEG's ERP to 1000 kW.

## **OMNI-DIRECTIONAL ANTENNA**

The applicant will install its authorized antenna, a Dielectric model TFU-27JTH/VP-R O6 elliptically polarized omni-directional transmitting antenna with its center of radiation located at a height above ground of 596 meters, and a height above average terrain of 611 meters. The antenna manufacturer's horizontal plane azimuth radiation pattern for the horizontally polarized component is shown and tabulated in exhibit 2. The manufacturer's horizontal plane azimuth pattern for the vertically polarized component is shown and tabulated in exhibit 3. The manufacturer's vertical plane elevation radiation pattern, illustrating the antenna's radiation characteristics above and below the horizontal plane is shown and tabulated in Exhibit 4.

The existing channel 39 DTV antenna will be removed from the tower structure and the new channel 32 antenna will be installed in its place, while maintaining the overall structure height of 1012.2 meters Above Mean Sea Level (AMSL). (See ASR #1057963)

## **PREDICTED COVERAGE CONTOURS**

The predicted coverage contours were calculated in accordance with the method described in Section 73.625(b) of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), proposed Effective Radiated Power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the NED Three Second US Terrain Database as permitted in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna

registration data. Exhibit 1 shows the predicted Noise Limited (40.51 dBu) contour, and the principal community (48 dBu) contour. The 48 dBu contour completely encompasses the principal community of license, Sioux City, Iowa.

## **ALLOCATION CONSIDERATIONS**

### ***Post-Transition DTV Considerations***

A study was performed, using the FCC's software, tv\_study, v. 2.2.3, to determine if the instant application for construction permit is predicted to cause new prohibited interference to post reassignment DTV stations, construction permits, DTV allotments or Class A DTV stations. The study results, shown in Appendix B, indicate that the instant application for construction permit is predicted to cause no new interference exceeding 0.5% to the populations served by any post reassignment DTV station, construction permit, allotment or Class A DTV stations. (See Appendix B)

### ***International DTV Considerations***

The KMEG site is located within neither the Canadian nor the Mexican international coordination zone, therefore there are no international DTV considerations required.

## **BLANKETING AND INTERMODULATION INTERFERENCE**

Other broadcast and non-broadcast facilities are either co-located with, or located within 10 km of the proposed KMEG site. The applicant does recognize its responsibility to remedy complaints of interference that might result from this proposal in accordance with applicable Rules.

## **RADIO FREQUENCY IMPACT**

The FCC's guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986) and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines define a maximum permissible exposure (MPE) level for occupational or "controlled" situations, and for "uncontrolled" environments that apply in all other cases that might affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance to determine whether FCC-regulated transmitting facilities, operations or devices comply with guidelines for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. OET Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines.

The Maximum Permitted Exposure (MPE) level for broadcast facilities that operate on a frequency between 30 MHz and 300 MHz is 200 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) for an "uncontrolled" environment, and is 1000 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) for a "controlled" environment. The MPE level for broadcast facilities that operate on a frequency between 300 MHz and 1500 MHz, primarily UHF TV stations, is determined, in  $\mu\text{W}/\text{cm}^2$ , for an "uncontrolled" environment by dividing the operating frequency in MHz by 1.500, and is similarly determined for a "controlled" environment by

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**KMEG - Sioux City, Iowa**  
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dividing the operating frequency in MHZ by 0.300.

The predicted emissions of KMEG must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For KMEG, which will operate on television Channel 32 (578-584 MHZ), the MPE is 387.33 microwatts per centimeter squared ( $\mu\text{W}/\text{cm}^2$ ) in an "uncontrolled" environment and 1,936.7  $\mu\text{W}/\text{cm}^2$  in a "controlled" environment. The proposed KMEG facility will operate with a maximum ERP of 1000 kW from an elliptically polarized omni-directional transmitting antenna with a centerline height of 598 meters above ground level (AGL). Considering a predicted vertical plane relative field factor of 0.300 the KMEG facility is predicted to produce a power density at two meters above ground level of 17.044  $\mu\text{W}/\text{cm}^2$ , which is 4.40% of the FCC guideline value for an "uncontrolled" environment, and 0.88% of the FCC's guideline value for "controlled" environments. There are two other full-power DTV stations and two Lo-VHF LPTV stations that are located at the KMEG site. Therefore, the total percentage of the ANSI value at the proposed site, including the cumulative radiation from all authorizations within relevant proximity, is 10.21% of the limit applicable to "uncontrolled" environments, and 2.042% of the limit for "controlled" environments. (See Appendix A)

**OCCUPATIONAL SAFETY**

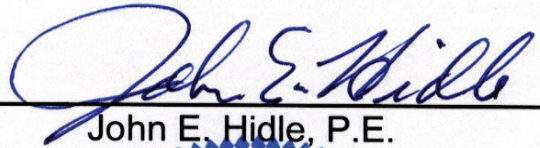
The licensee of KMEG is committed to the protection of station personnel and/or tower contractors working in the vicinity of the KMEG antenna, and is committed to reducing power or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure protection to personnel.


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**SUMMARY**

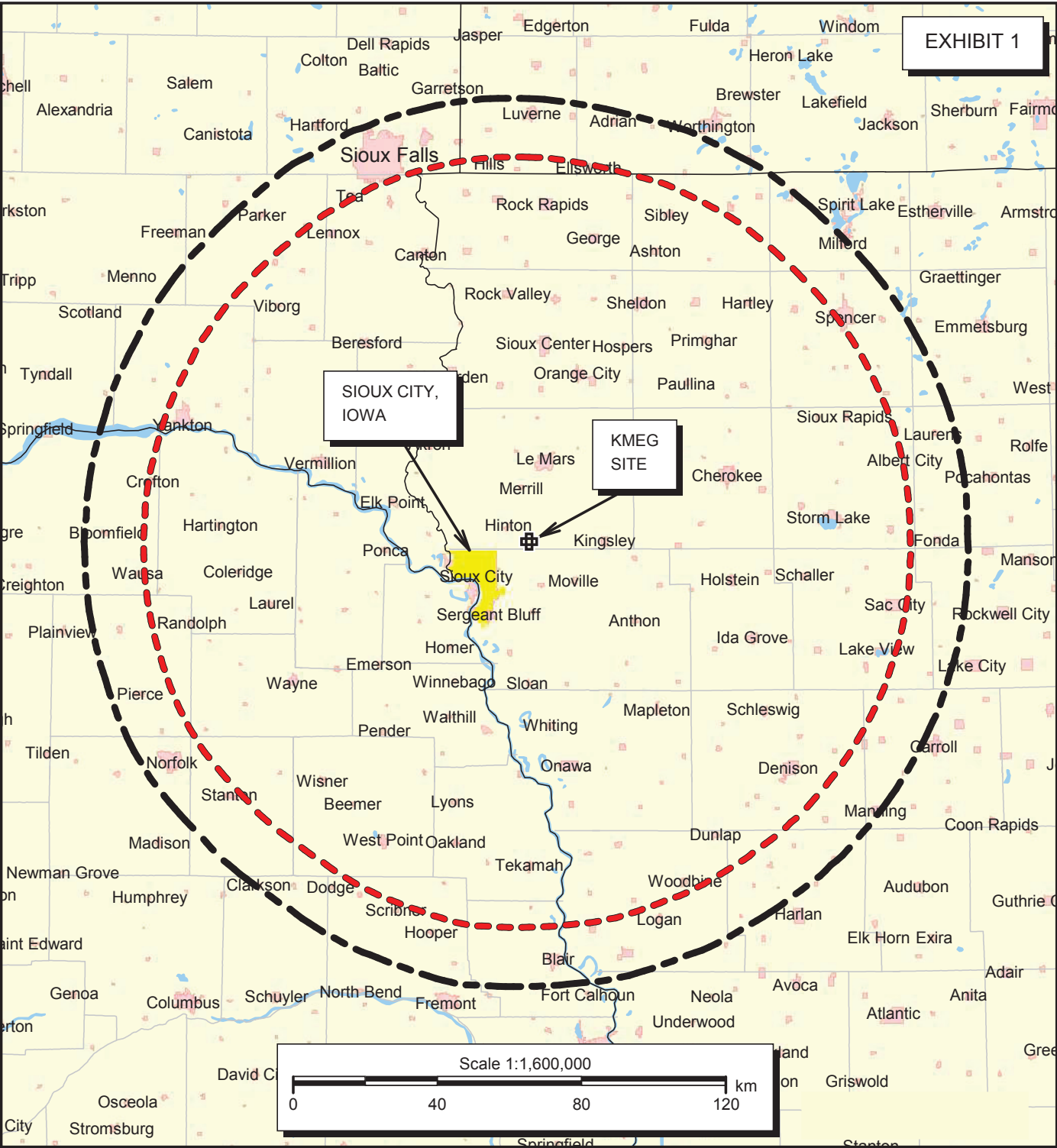
It is submitted that the instant application for minor modification of its post-reassignment channel 32 construction permit to increase KMEG's ERP to 1000 kW, as described herein, complies with the Rules, Regulations and relevant Policies of the Federal Communications Commission. This statement, FCC Form 2100, its technical sections, and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

DATED: October 9, 2017

  
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John E. Hidle, P.E.







**PREDICTED COVERAGE CONTOURS**

**KMEG - SIOUX CITY, IOWA**  
**DTV Channel 32 - 1000 kW ERP - 611 M HAAT**  
**OCTOBER, 2017**



Predicted Noise Limited 40.51 dBu  
F(50,90) Coverage Contour

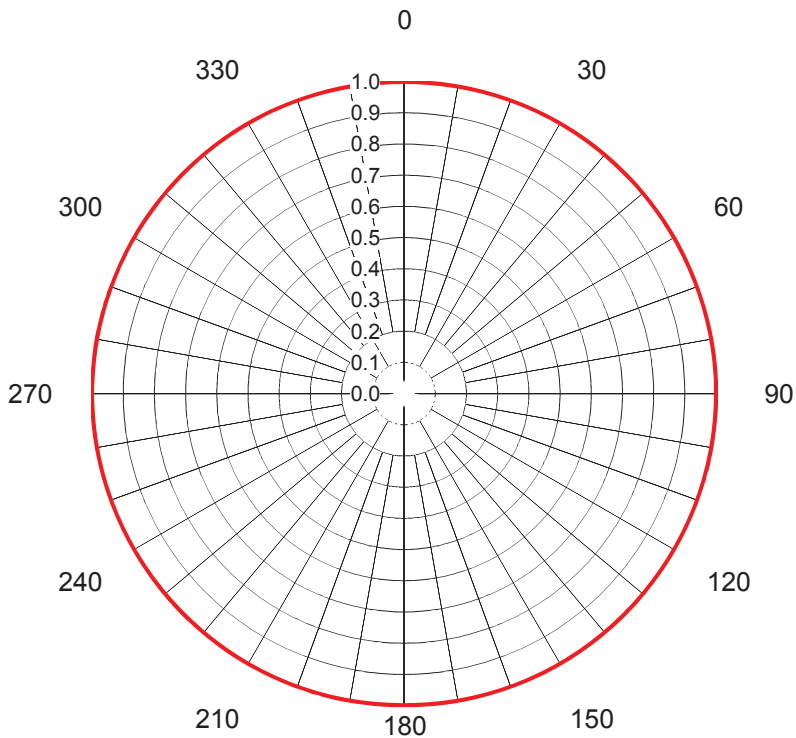


Predicted Principal Community 48 dBu  
F(50,90) Coverage Contour



## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70396-1**  
 Date **4-Mar-17**  
 Call Letters **KMEG**  
 Channel **32**  
 Frequency **581 MHz**  
 Antenna Type **TFU-27JTH/VP-R 06**  
 Gain **1 (0dB)**  
 Circularity **Calculated  
+/- 1.0 dB**



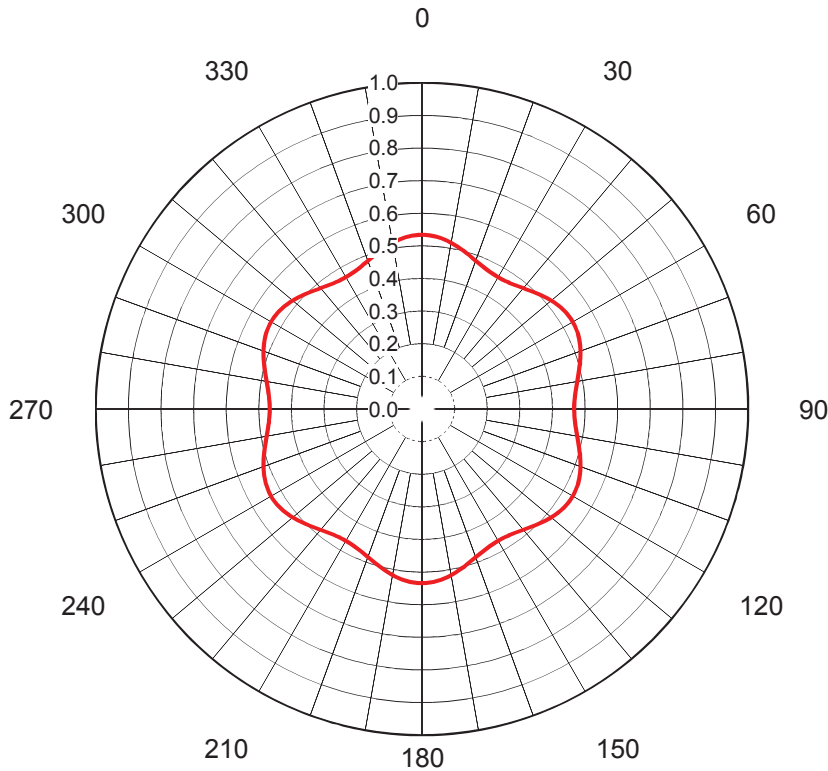
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.999	36	1.000	72	0.999	108	0.999	144	1.000	180	0.999	216	1.000	252	0.999	288	0.999
1	0.999	37	1.000	73	0.999	109	0.999	145	1.000	181	0.999	217	1.000	253	0.999	289	0.999
2	0.999	38	1.000	74	0.999	110	0.999	146	1.000	182	0.999	218	1.000	254	0.999	290	0.999
3	0.999	39	1.000	75	0.999	111	0.999	147	1.000	183	0.999	219	1.000	255	0.999	291	0.999
4	0.999	40	1.000	76	1.000	112	0.999	148	1.000	184	0.999	220	1.000	256	1.000	292	0.999
5	0.999	41	1.000	77	1.000	113	0.999	149	1.000	185	0.999	221	1.000	257	1.000	293	0.999
6	0.999	42	1.000	78	1.000	114	0.999	150	1.000	186	0.999	222	1.000	258	1.000	294	0.999
7	0.999	43	1.000	79	1.000	115	0.999	151	1.000	187	0.999	223	1.000	259	1.000	295	0.999
8	0.999	44	1.000	80	1.000	116	0.999	152	1.000	188	0.999	224	1.000	260	1.000	296	0.999
9	0.999	45	0.999	81	1.000	117	0.999	153	1.000	189	0.999	225	0.999	261	1.000	297	0.999
10	0.999	46	0.999	82	1.000	118	0.999	154	1.000	190	0.999	226	0.999	262	1.000	298	0.999
11	0.999	47	0.999	83	1.000	119	0.999	155	1.000	191	0.999	227	0.999	263	1.000	299	0.999
12	0.999	48	0.999	84	1.000	120	0.999	156	1.000	192	0.999	228	0.999	264	1.000	300	0.999
13	0.999	49	0.999	85	1.000	121	0.999	157	1.000	193	0.999	229	0.999	265	1.000	301	0.999
14	0.999	50	0.999	86	1.000	122	0.999	158	1.000	194	0.999	230	0.999	266	1.000	302	0.999
15	0.999	51	0.999	87	1.000	123	0.999	159	1.000	195	0.999	231	0.999	267	1.000	303	0.999
16	1.000	52	0.999	88	1.000	124	0.999	160	1.000	196	1.000	232	0.999	268	1.000	304	0.999
17	1.000	53	0.999	89	1.000	125	0.999	161	1.000	197	1.000	233	0.999	269	1.000	305	0.999
18	1.000	54	0.999	90	1.000	126	0.999	162	1.000	198	1.000	234	0.999	270	1.000	306	0.999
19	1.000	55	0.999	91	1.000	127	0.999	163	1.000	199	1.000	235	0.999	271	1.000	307	0.999
20	1.000	56	0.999	92	1.000	128	0.999	164	1.000	200	1.000	236	0.999	272	1.000	308	0.999
21	1.000	57	0.999	93	1.000	129	0.999	165	0.999	201	1.000	237	0.999	273	1.000	309	0.999
22	1.000	58	0.999	94	1.000	130	0.999	166	0.999	202	1.000	238	0.999	274	1.000	310	0.999
23	1.000	59	0.999	95	1.000	131	0.999	167	0.999	203	1.000	239	0.999	275	1.000	311	0.999
24	1.000	60	0.999	96	1.000	132	0.999	168	0.999	204	1.000	240	0.999	276	1.000	312	0.999
25	1.000	61	0.999	97	1.000	133	0.999	169	0.999	205	1.000	241	0.999	277	1.000	313	0.999
26	1.000	62	0.999	98	1.000	134	0.999	170	0.999	206	1.000	242	0.999	278	1.000	314	0.999
27	1.000	63	0.999	99	1.000	135	0.999	171	0.999	207	1.000	243	0.999	279	1.000	315	0.999
28	1.000	64	0.999	100	1.000	136	1.000	172	0.999	208	1.000	244	0.999	280	1.000	316	1.000
29	1.000	65	0.999	101	1.000	137	1.000	173	0.999	209	1.000	245	0.999	281	1.000	317	1.000
30	1.000	66	0.999	102	1.000	138	1.000	174	0.999	210	1.000	246	0.999	282	1.000	318	1.000
31	1.000	67	0.999	103	1.000	139	1.000	175	0.999	211	1.000	247	0.999	283	1.000	319	1.000
32	1.000	68	0.999	104	1.000	140	1.000	176	0.999	212	1.000	248	0.999	284	1.000	320	1.000
33	1.000	69	0.999	105	0.999	141	1.000	177	0.999	213	1.000	249	0.999	285	0.999	321	1.000
34	1.000	70	0.999	106	0.999	142	1.000	178	0.999	214	1.000	250	0.999	286	0.999	322	1.000
35	1.000	71	0.999	107	0.999	143	1.000	179	0.999	215	1.000	251	0.999	287	0.999	323	1.000

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70396-1**  
 Date **4-Mar-17**  
 Call Letters **KMEG**  
 Channel **32**  
 Frequency **581 MHz**  
 Antenna Type **TFU-27JTH/VP-R 06**  
 Gain **1.14 (0.56dB)**  
 Calculated  
 Circularity **+/- 1.0 dB**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.534	36	0.473	72	0.511	108	0.511	144	0.473	180	0.534	216	0.473	252	0.511	288	0.511	324	0.473
1	0.534	37	0.475	73	0.507	109	0.514	145	0.471	181	0.534	217	0.475	253	0.507	289	0.514	325	0.471
2	0.533	38	0.478	74	0.504	110	0.517	146	0.470	182	0.533	218	0.478	254	0.504	290	0.517	326	0.470
3	0.532	39	0.480	75	0.500	111	0.520	147	0.468	183	0.532	219	0.480	255	0.500	291	0.520	327	0.468
4	0.531	40	0.483	76	0.497	112	0.523	148	0.467	184	0.531	220	0.483	256	0.497	292	0.523	328	0.467
5	0.530	41	0.487	77	0.493	113	0.525	149	0.467	185	0.530	221	0.487	257	0.493	293	0.525	329	0.467
6	0.528	42	0.490	78	0.490	114	0.528	150	0.467	186	0.528	222	0.490	258	0.490	294	0.528	330	0.467
7	0.525	43	0.493	79	0.487	115	0.530	151	0.467	187	0.525	223	0.493	259	0.487	295	0.530	331	0.467
8	0.523	44	0.497	80	0.483	116	0.531	152	0.467	188	0.523	224	0.497	260	0.483	296	0.531	332	0.467
9	0.520	45	0.500	81	0.480	117	0.532	153	0.468	189	0.520	225	0.500	261	0.480	297	0.532	333	0.468
10	0.517	46	0.504	82	0.478	118	0.533	154	0.470	190	0.517	226	0.504	262	0.478	298	0.533	334	0.470
11	0.514	47	0.507	83	0.475	119	0.534	155	0.471	191	0.514	227	0.507	263	0.475	299	0.534	335	0.471
12	0.511	48	0.511	84	0.473	120	0.534	156	0.473	192	0.511	228	0.511	264	0.473	300	0.534	336	0.473
13	0.507	49	0.514	85	0.471	121	0.534	157	0.475	193	0.507	229	0.514	265	0.471	301	0.534	337	0.475
14	0.504	50	0.517	86	0.470	122	0.533	158	0.478	194	0.504	230	0.517	266	0.470	302	0.533	338	0.478
15	0.500	51	0.520	87	0.468	123	0.532	159	0.480	195	0.500	231	0.520	267	0.468	303	0.532	339	0.480
16	0.497	52	0.523	88	0.467	124	0.531	160	0.483	196	0.497	232	0.523	268	0.467	304	0.531	340	0.483
17	0.493	53	0.525	89	0.467	125	0.530	161	0.487	197	0.493	233	0.525	269	0.467	305	0.530	341	0.487
18	0.490	54	0.528	90	0.467	126	0.528	162	0.490	198	0.490	234	0.528	270	0.467	306	0.528	342	0.490
19	0.487	55	0.530	91	0.467	127	0.525	163	0.493	199	0.487	235	0.530	271	0.467	307	0.525	343	0.493
20	0.483	56	0.531	92	0.467	128	0.523	164	0.497	200	0.483	236	0.531	272	0.467	308	0.523	344	0.497
21	0.480	57	0.532	93	0.468	129	0.520	165	0.500	201	0.480	237	0.532	273	0.468	309	0.520	345	0.500
22	0.478	58	0.533	94	0.470	130	0.517	166	0.504	202	0.478	238	0.533	274	0.470	310	0.517	346	0.504
23	0.475	59	0.534	95	0.471	131	0.514	167	0.507	203	0.475	239	0.534	275	0.471	311	0.514	347	0.507
24	0.473	60	0.534	96	0.473	132	0.511	168	0.511	204	0.473	240	0.534	276	0.473	312	0.511	348	0.511
25	0.471	61	0.534	97	0.475	133	0.507	169	0.514	205	0.471	241	0.534	277	0.475	313	0.507	349	0.514
26	0.470	62	0.533	98	0.478	134	0.504	170	0.517	206	0.470	242	0.533	278	0.478	314	0.504	350	0.517
27	0.468	63	0.532	99	0.480	135	0.500	171	0.520	207	0.468	243	0.532	279	0.480	315	0.500	351	0.520
28	0.467	64	0.531	100	0.483	136	0.497	172	0.523	208	0.467	244	0.531	280	0.483	316	0.497	352	0.523
29	0.467	65	0.530	101	0.487	137	0.493	173	0.525	209	0.467	245	0.530	281	0.487	317	0.493	353	0.525
30	0.467	66	0.528	102	0.490	138	0.490	174	0.528	210	0.467	246	0.528	282	0.490	318	0.490	354	0.528
31	0.467	67	0.525	103	0.493	139	0.487	175	0.530	211	0.467	247	0.525	283	0.493	319	0.487	355	0.530
32	0.467	68	0.523	104	0.497	140	0.483	176	0.531	212	0.467	248	0.523	284	0.497	320	0.483	356	0.531
33	0.468	69	0.520	105	0.500	141	0.480	177	0.532	213	0.468	249	0.520	285	0.500	321	0.480	357	0.532
34	0.470	70	0.517	106	0.504	142	0.478	178	0.533	214	0.470	250	0.517	286	0.504	322	0.478	358	0.533
35	0.471	71	0.514	107	0.507	143	0.475	179	0.534	215	0.471	251	0.514	287	0.507	323	0.475	359	0.534

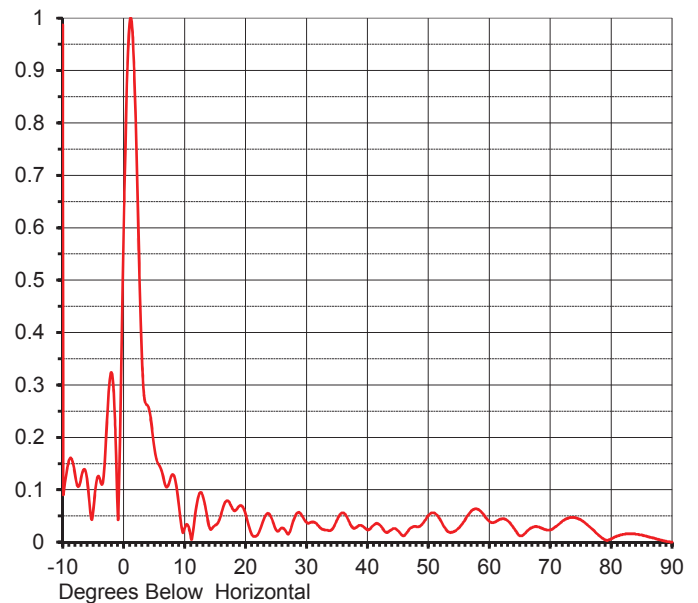
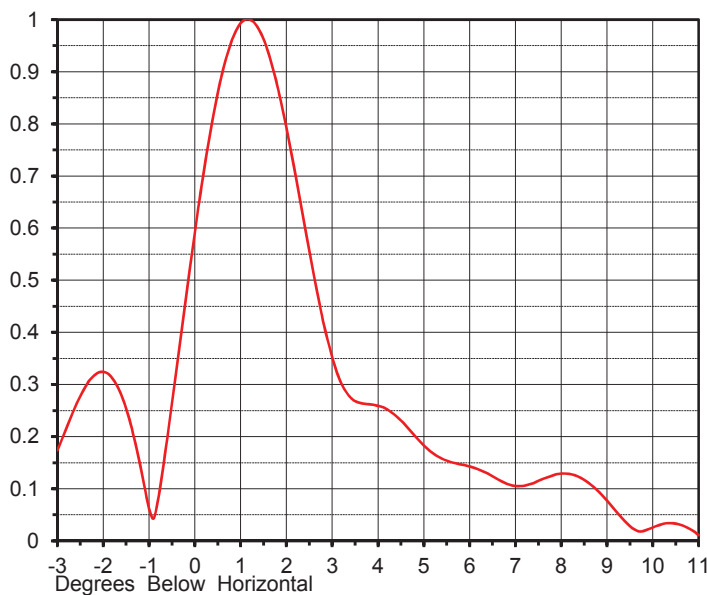
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## ELEVATION PATTERN

Proposal No. **C-70396-1**  
 Date **4-Mar-17**  
 Call Letters **KMEG**  
 Channel **32**  
 Frequency **581 MHz**  
 Antenna Type **TFU-27JTH/VP-R 06**

RMS Directivity at Main Lobe **25.0 ( 13.98 dB )**  
 RMS Directivity at Horizontal **8.7 ( 9.40 dB )**  
**Calculated**

Beam Tilt **1.05 deg**  
 Drawing Number **27J250105**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.987	10.0	0.026	30.0	0.038	50.0	0.051	70.0	0.023
-9.0	0.155	11.0	0.011	31.0	0.039	51.0	0.056	71.0	0.030
-8.0	0.131	12.0	0.072	32.0	0.031	52.0	0.042	72.0	0.040
-7.0	0.121	13.0	0.088	33.0	0.023	53.0	0.023	73.0	0.046
-6.0	0.119	14.0	0.031	34.0	0.023	54.0	0.019	74.0	0.047
-5.0	0.059	15.0	0.032	35.0	0.042	55.0	0.027	75.0	0.043
-4.0	0.124	16.0	0.053	36.0	0.056	56.0	0.042	76.0	0.034
-3.0	0.174	17.0	0.079	37.0	0.039	57.0	0.059	77.0	0.024
-2.0	0.324	18.0	0.062	38.0	0.027	58.0	0.063	78.0	0.013
-1.0	0.062	19.0	0.069	39.0	0.032	59.0	0.054	79.0	0.004
0.0	0.591	20.0	0.054	40.0	0.024	60.0	0.040	80.0	0.006
1.0	0.993	21.0	0.015	41.0	0.032	61.0	0.039	81.0	0.012
2.0	0.793	22.0	0.014	42.0	0.033	62.0	0.044	82.0	0.015
3.0	0.352	23.0	0.044	43.0	0.019	63.0	0.041	83.0	0.016
4.0	0.259	24.0	0.052	44.0	0.024	64.0	0.027	84.0	0.015
5.0	0.183	25.0	0.024	45.0	0.022	65.0	0.012	85.0	0.014
6.0	0.143	26.0	0.027	46.0	0.012	66.0	0.018	86.0	0.011
7.0	0.105	27.0	0.015	47.0	0.026	67.0	0.028	87.0	0.008
8.0	0.129	28.0	0.045	48.0	0.030	68.0	0.029	88.0	0.004
9.0	0.077	29.0	0.055	49.0	0.034	69.0	0.025	89.0	0.002
								90.0	0.000

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# SUMMARY OF RADIOFREQUENCY RADIATION STUDY

KMEG, Sioux City, IA  
Channel 32, 1000 kW, 611 m HAAT  
October, 2017

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLAR- IZATION</u>	<u>ANTENNA HEIGHT</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>WORST-CASE PREDICTED POWER DENSITY (<math>\mu\text{W}/\text{cm}^2</math>)</u>	<u>FCC UNCONTROLLED LIMIT (<math>\mu\text{W}/\text{cm}^2</math>)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
KMEG	DT	32	581	H & V	596	1000.000	0.300	17.044	387.33	4.40%
KTIV	DT	14	473	H	595	484.000	0.300	4.139	315.33	1.31%
KPTH	DT	30	569	H & V	596	1000.000	0.300	17.044	379.33	4.49%
K03IS-D	DT	3	63	H	550	0.300	0.300	0.003	200.00	0.00%
K06QG-D	DT	6	85	H	550	0.300	0.300	0.003	200.00	0.00%
<b>TOTAL PERCENTAGE OF FCC GUIDELINE VALUE =</b>										<b>10.21%</b>

\* For television stations a very conservative vertical relative field factor of 0.3 was assumed pursuant to OET Bulletin 65.



## KMEG - SIOUX CITY, IOWA Longley-Rice Interference Analysis

tvstudy v2.2.3 (Dxtpx3)

Database: localhost, Study: KMEG 32 OMNI 1000K 171002, Model: Longley-Rice  
Start: 2017.10.02 19:01:46

Study created: 2017.10.02 19:01:24

Study build station data: LMS TV 2017-10-01 (38)

Proposal: KMEG D32 DT CP SIOUX CITY, IA  
File number: KMEG 32 OMNI 1000K 171002  
Facility ID: 39665  
Station data: User record  
Record ID: 1746  
Country: U.S.  
Zone: II

Search options:  
Non-U.S. records included  
Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KMTV-TV	D31	DT	CP	OMAHA, NE	BLANK0000026767	143.2 km
WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	369.8
KBIN-TV	D33	DT	LIC	COUNCIL BLUFFS, IA	BLEDT20050711ABX	151.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D32  
Latitude: 42 35 12.00 N (NAD83)  
Longitude: 96 13 19.00 W  
Height AMSL: 1002.3 m  
HAAT: 611.0 m  
Peak ERP: 1000 kW  
Antenna: Omnidirectional  
Elev Pattn: Generic  
Elec Tilt: 1.1

40.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1000 kW	616.5 m	122.7 km
45.0	1000	587.3	121.0
90.0	1000	597.3	121.6
135.0	1000	619.6	122.8
180.0	1000	626.1	123.2
225.0	1000	610.3	122.3
270.0	1000	625.0	123.2
315.0	1000	609.6	122.3

ERP exceeds maximum

ERP: 1000 kW ERP maximum: 315 kW

\*\*Proposal service area extends beyond baseline plus 1.0%  
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 685.6 km

Distance to Mexican border: 1497.1 km

# **Appendix B - Interference Analysis** **KMEG - Sioux City, Iowa** **Channel 32 - 1000 kW - Page 2**

Conditions at FCC monitoring station: Grand Island NE  
 Bearing: 225.4 degrees Distance: 260.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
 Bearing: 253.2 degrees Distance: 797.7 km

Study cell size: 2.00 km  
 Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%  
 Maximum new IX to LPTV: 2.00%

## ----- Interference to BLANK0000026767 CP, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KMTV-TV	D31	DT	CP	OMAHA, NE	BLANK0000026767	
Undesireds:	KMEG	D32	DT	BL	SIOUX CITY, IA	DTVBL39665	143.2 km
	KMEG	D32	DT	CP	SIOUX CITY, IA	KMEG 32 OMNI 1000K 171	143.2
	KPTH	D30	DT	CP	SIOUX CITY, IA	BLANK0000024773	143.2
	KCWE	D31	DT	LIC	KANSAS CITY, MO	BLCDDT20051014ABT	278.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
34077.8 1,346,549		33745.3 1,344,796		32925.2 1,335,872		32901.2 1,335,354	0.07 0.04
Undesired		Total IX		Unique IX, before		Unique IX, after	
KMEG D32 DT BL		480.0 3,741		312.1 1,680			
KMEG D32 DT CP		504.0 4,259				336.1 2,198	
KPTH D30 DT CP		167.9 2,061		0.0 0		0.0 0	
KCWE D31 DT LIC		340.0 5,183		340.0 5,183		340.0 5,183	

## ----- Interference to BMLCDT20120907ABQ LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	
Undesireds:	KMEG	D32	DT	BL	SIOUX CITY, IA	DTVBL39665	369.8 km
	KMEG	D32	DT	CP	SIOUX CITY, IA	KMEG 32 OMNI 1000K 171	369.8
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
38129.8 3,837,442		37559.5 3,829,714		37535.5 3,829,230		37535.5 3,829,230	0.00 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
KMEG D32 DT BL		24.0 484		24.0 484			
KMEG D32 DT CP		24.0 484				24.0 484	

## ----- Interference to BLEDT20050711ABX LIC, scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	KBIN-TV	D33	DT	LIC	COUNCIL BLUFFS, IA	BLEDT20050711ABX	
Undesireds:	KMEG	D32	DT	BL	SIOUX CITY, IA	DTVBL39665	151.5 km
	KMEG	D32	DT	CP	SIOUX CITY, IA	KMEG 32 OMNI 1000K 171	151.5
	KTVO	D33	DT	APP	KIRKSVILLE, MO	BPCDDT20130206ADL	296.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
13356.2 912,921		13151.5 911,725		13135.4 911,645		13139.4 911,648	-0.03 -0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
KMEG D32 DT BL		16.1 80		16.1 80			
KMEG D32 DT CP		12.1 77				12.1 77	

**Appendix B - Interference Analysis**  
**KMEG - Sioux City, Iowa**  
**Channel 32 - 1000 kW - Page 3**

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Interference to proposal, scenario 1  
0.61% interference

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KMEG	D32	DT	CP	SIOUX CITY, IA	KMEG 32 OMNI 1000K 171	
Undesireds:	KMTV-TV	D31	DT	CP	OMAHA, NE	BLANK0000026767	143.2 km
	WCCO-TV	D32	DT	LIC	MINNEAPOLIS, MN	BMLCDT20120907ABQ	369.8
	KSMO-TV	D32	DT	CP	KANSAS CITY, MO	BLANK0000024829	415.5
Service area		Terrain-limited		IX-free		Percent IX	
47088.1	708,748	46810.8		704,130	46033.1	699,802	1.66 0.61
Undesired		Total IX		Unique IX		Prct Unique IX	
KMTV-TV	D31 DT CP	753.9		4,198	749.9	4,146	1.60 0.59
WCCO-TV	D32 DT LIC	23.9		130	23.9	130	0.05 0.02
KSMO-TV	D32 DT CP	4.0		52	0.0	0	0.00 0.00