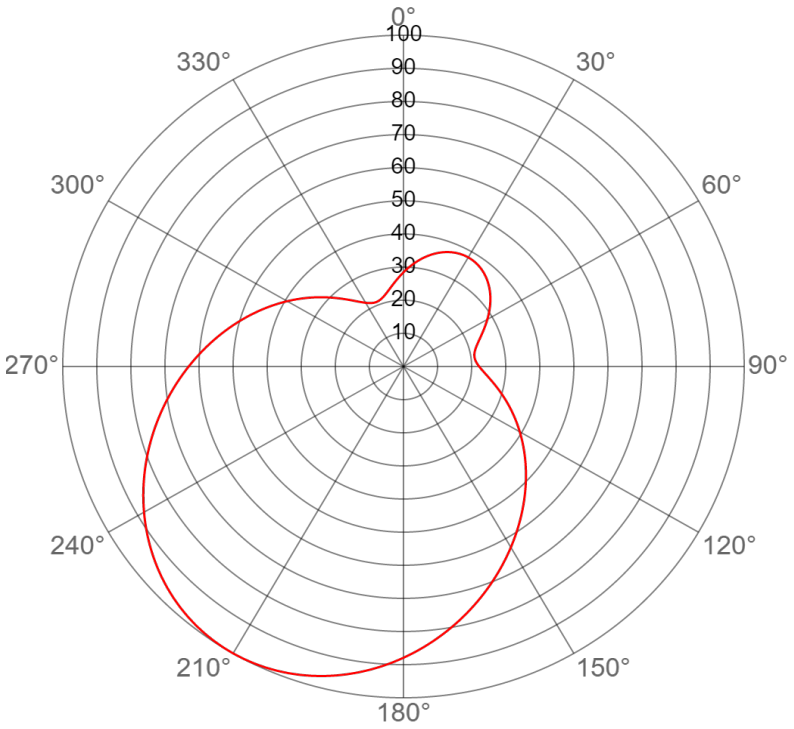


Horizontal Polarization
AZIMUTH PATTERN

Exhibit No.	
Date	**11 Mar 2019**
Call Letters	**K17OC-D**
Channel	**17**
Antenna Type	**DLP-8D**
Location	**COEUR D'ALENE**
Customer	**KHQ Inc.**
Gain	**3.0 (4.77 dB)**
	Calculated
Drawing #	**d-pattern_ch30**

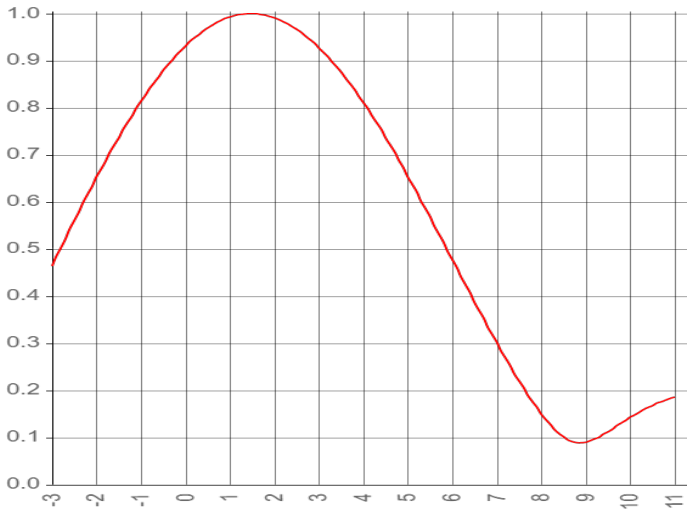
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.284	36	0.376	72	0.229	108	0.312	144	0.580	180	0.879	216	0.995	252	0.785	288	0.484	324	0.245
1	0.289	37	0.374	73	0.226	109	0.319	145	0.588	181	0.886	217	0.993	253	0.776	289	0.476	325	0.241
2	0.294	38	0.372	74	0.223	110	0.325	146	0.597	182	0.893	218	0.991	254	0.768	290	0.468	326	0.236
3	0.299	39	0.370	75	0.220	111	0.332	147	0.605	183	0.900	219	0.988	255	0.759	291	0.461	327	0.232
4	0.304	40	0.368	76	0.218	112	0.338	148	0.613	184	0.907	220	0.985	256	0.751	292	0.453	328	0.229
5	0.309	41	0.365	77	0.216	113	0.345	149	0.622	185	0.913	221	0.982	257	0.742	293	0.446	329	0.225
6	0.314	42	0.362	78	0.214	114	0.352	150	0.630	186	0.920	222	0.979	258	0.733	294	0.438	330	0.222
7	0.319	43	0.359	79	0.212	115	0.359	151	0.639	187	0.926	223	0.975	259	0.725	295	0.431	331	0.219
8	0.324	44	0.356	80	0.211	116	0.366	152	0.647	188	0.932	224	0.971	260	0.716	296	0.423	332	0.217
9	0.328	45	0.352	81	0.211	117	0.373	153	0.656	189	0.938	225	0.967	261	0.708	297	0.416	333	0.215
10	0.333	46	0.349	82	0.210	118	0.380	154	0.665	190	0.943	226	0.963	262	0.699	298	0.409	334	0.213
11	0.337	47	0.345	83	0.211	119	0.387	155	0.673	191	0.948	227	0.958	263	0.690	299	0.401	335	0.212
12	0.341	48	0.341	84	0.211	120	0.394	156	0.682	192	0.954	228	0.954	264	0.682	300	0.394	336	0.211
13	0.345	49	0.337	85	0.212	121	0.401	157	0.690	193	0.958	229	0.948	265	0.673	301	0.387	337	0.211
14	0.349	50	0.333	86	0.213	122	0.409	158	0.699	194	0.963	230	0.943	266	0.665	302	0.380	338	0.210
15	0.352	51	0.328	87	0.215	123	0.416	159	0.708	195	0.967	231	0.938	267	0.656	303	0.373	339	0.211
16	0.356	52	0.324	88	0.217	124	0.423	160	0.716	196	0.971	232	0.932	268	0.647	304	0.366	340	0.211
17	0.359	53	0.319	89	0.219	125	0.431	161	0.725	197	0.975	233	0.926	269	0.639	305	0.359	341	0.212
18	0.362	54	0.314	90	0.222	126	0.438	162	0.733	198	0.979	234	0.920	270	0.630	306	0.352	342	0.214
19	0.365	55	0.309	91	0.225	127	0.446	163	0.742	199	0.982	235	0.913	271	0.622	307	0.345	343	0.216
20	0.368	56	0.304	92	0.229	128	0.453	164	0.751	200	0.985	236	0.907	272	0.613	308	0.338	344	0.218
21	0.370	57	0.299	93	0.232	129	0.461	165	0.759	201	0.988	237	0.900	273	0.605	309	0.332	345	0.220
22	0.372	58	0.294	94	0.236	130	0.468	166	0.768	202	0.991	238	0.893	274	0.597	310	0.325	346	0.223
23	0.374	59	0.289	95	0.241	131	0.476	167	0.776	203	0.993	239	0.886	275	0.588	311	0.319	347	0.226
24	0.376	60	0.284	96	0.245	132	0.484	168	0.785	204	0.995	240	0.879	276	0.580	312	0.312	348	0.229
25	0.377	61	0.279	97	0.250	133	0.492	169	0.793	205	0.996	241	0.872	277	0.572	313	0.306	349	0.233
26	0.378	62	0.274	98	0.254	134	0.499	170	0.801	206	0.998	242	0.865	278	0.563	314	0.300	350	0.237
27	0.379	63	0.269	99	0.260	135	0.507	171	0.809	207	0.999	243	0.857	279	0.555	315	0.294	351	0.241
28	0.380	64	0.264	100	0.265	136	0.515	172	0.818	208	0.999	244	0.849	280	0.547	316	0.288	352	0.245
29	0.380	65	0.259	101	0.270	137	0.523	173	0.826	209	1.000	245	0.841	281	0.539	317	0.282	353	0.250
30	0.380	66	0.255	102	0.276	138	0.531	174	0.834	210	1.000	246	0.834	282	0.531	318	0.276	354	0.255
31	0.380	67	0.250	103	0.282	139	0.539	175	0.841	211	1.000	247	0.826	283	0.523	319	0.270	355	0.259
32	0.380	68	0.245	104	0.288	140	0.547	176	0.849	212	0.999	248	0.818	284	0.515	320	0.265	356	0.264
33	0.379	69	0.241	105	0.294	141	0.555	177	0.857	213	0.999	249	0.809	285	0.507	321	0.260	357	0.269
34	0.378	70	0.237	106	0.300	142	0.563	178	0.865	214	0.998	250	0.801	286	0.499	322	0.254	358	0.274
35	0.377	71	0.233	107	0.306	143	0.572	179	0.872	215	0.996	251	0.793	287	0.492	323	0.250	359	0.279

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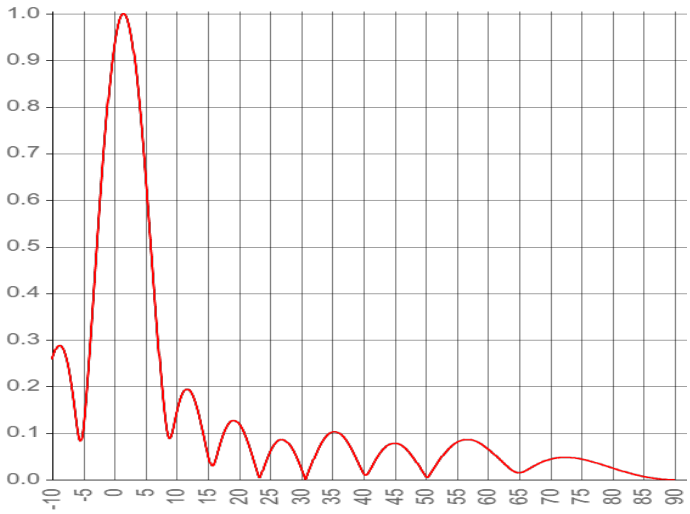
ELEVATION PATTERN

Exhibit No.	
Date	**11 Mar 2019**
Call Letters	**K17OC-D**
Channel	**17**
Antenna Type	**DLP-8D**
Location	**COEUR D'ALENE**
Customer	**KHQ Inc.**

RMS Gain at Main Lobe	**8.0 (9.03 dB)**	Beam Tilt	**1.5 Degrees**
RMS Gain at Horizontal	**6.9 (8.42 dB)**	Drawing #	
	Calculated		



Degrees below horizontal



Degrees below horizontal

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10	0.258	10	0.143	30	0.025	50	0.007	70	0.044
-9	0.287	11	0.186	31	0.010	51	0.018	71	0.047
-8	0.273	12	0.193	32	0.044	52	0.038	72	0.048
-7	0.213	13	0.166	33	0.073	53	0.056	73	0.048
-6	0.117	14	0.115	34	0.093	54	0.070	74	0.047
-5	0.111	15	0.056	35	0.102	55	0.080	75	0.044
-4	0.271	16	0.034	36	0.101	56	0.085	76	0.041
-3	0.464	17	0.078	37	0.088	57	0.086	77	0.038
-2	0.652	18	0.112	38	0.068	58	0.083	78	0.034
-1	0.814	19	0.127	39	0.041	59	0.076	79	0.029
0	0.932	20	0.120	40	0.015	60	0.066	80	0.025
1	0.993	21	0.095	41	0.020	61	0.055	81	0.021
2	0.991	22	0.058	42	0.044	62	0.042	82	0.017
3	0.928	23	0.015	43	0.063	63	0.030	83	0.013
4	0.811	24	0.027	44	0.074	64	0.019	84	0.010
5	0.655	25	0.060	45	0.078	65	0.015	85	0.007
6	0.478	26	0.080	46	0.075	66	0.019	86	0.004
7	0.301	27	0.086	47	0.064	67	0.027	87	0.003
8	0.150	28	0.077	48	0.048	68	0.034	88	0.001
9	0.090	29	0.055	49	0.028	69	0.040	89	0.000

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System Summary

Exhibit No.	
Date	**11 Mar 2019**
Call Letters	**K17OC-D**
Channel	**17**
Antenna Type	**DLP-8D**
Location	**COEUR D'ALENE**
Customer	**KHQ Inc.**

Antenna

ERP:	15.0 kW (11.76 dBk)
Peak Gain*:	24.0 (13.80 dB)

Antenna Input Power:

0.6 kW

Transmission Line

Type:	Flexline Foam		
Size:	1-5/8"		
Impedance:	50 ohm		
Length:	150 ft (45.7 m)	Attenuation:	0.8 dB
		Efficiency:	84.05 %

Transmitter Output

0.7 kW (-1.31 dBk)

* Gain is with respect to half wave dipole.

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Mechanicals

Exhibit No.	
Date	**11 Mar 2019**
Call Letters	**K17OC-D**
Channel	**17**
Antenna Type	**DLP-8D**
Location	**COEUR D'ALENE**
Customer	**KHQ Inc.**

Preliminary Specifications

Side Mounted

Mechanical Specification without ice TIA-222-G

Basic Wind Speed	90 mph
Structure Class	II
Exposure Category	C
Topography Category	1

Mechanical Specifications

Height less Lightning Protector	(H2)	18.2 ft (5.5 m)
Center of Radiation	(H3)	10.1 ft (3.1 m)
Effective Projected Area	(EPA)s	25.6 ft² (7.8 m²)
Weight	W	88.8 lbs

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