

TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
STATION WSFA-DT
MONTGOMERY, ALABAMA
CH 14 600 KW (MAX-DA) 530 M

Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station WSFA-DT which is paired with NTSC (analog) channel 12 at Montgomery, Alabama. This application requests modification of its construction permit (CP) for its digital television operation on channel 57 at Montgomery. The Federal Communications Commission (FCC) recently reassigned channel 14 as WSFA-DT DTV allotment. This application is now seeking a construction permit for the Channel 14 facility.

Proposed Facilities

Station WSFA-DT proposes to operate DTV channel 14 from its existing NTSC tower site location. It is proposed to operate with an Andrew ATW25H3-HSC4-14S directional type antenna with a maximum average effective radiated power of 600 kilowatts. The antenna height above average terrain for the channel 14 DTV operation will be 530 meters. Since the proposed facilities are identical to those allocated by the Commission, no allocation study is necessary for this "checklist" application.

The existing NTSC transmitter site is described by the following coordinates (NAD-27):

31° 58' 28" North Latitude
86° 09' 44" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 1.

The Appendix contains the antenna manufacturer's horizontal and vertical plane radiation patterns for the proposed DTV antenna system. The proposed "cardioid" type antenna will be oriented such that the main lobe will be at 10° true.

Figure 2 is a map showing the DTV predicted coverage contour. The map provides the predicted F(50,90) noise limited contour. The extent of the contour has been calculated using the normal FCC prediction method. The Montgomery city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Radiofrequency Electromagnetic Field Exposure

The proposed WSFA-DT facilities were evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level to workers and the general public. The radiation center for the proposed WSFA-DT antenna is located 416 meters above ground level. The maximum effective radiated power is 600 kilowatts. A relative field value of 0.2 is assumed for the antenna's downward radiation. The calculated power density at a point 2 meters above ground level is 0.003 mW/cm^2 . This is less than 5 percent of the Commission's recommended limit of 0.32 mW/cm^2 for channel 14 for an "uncontrolled" environment.

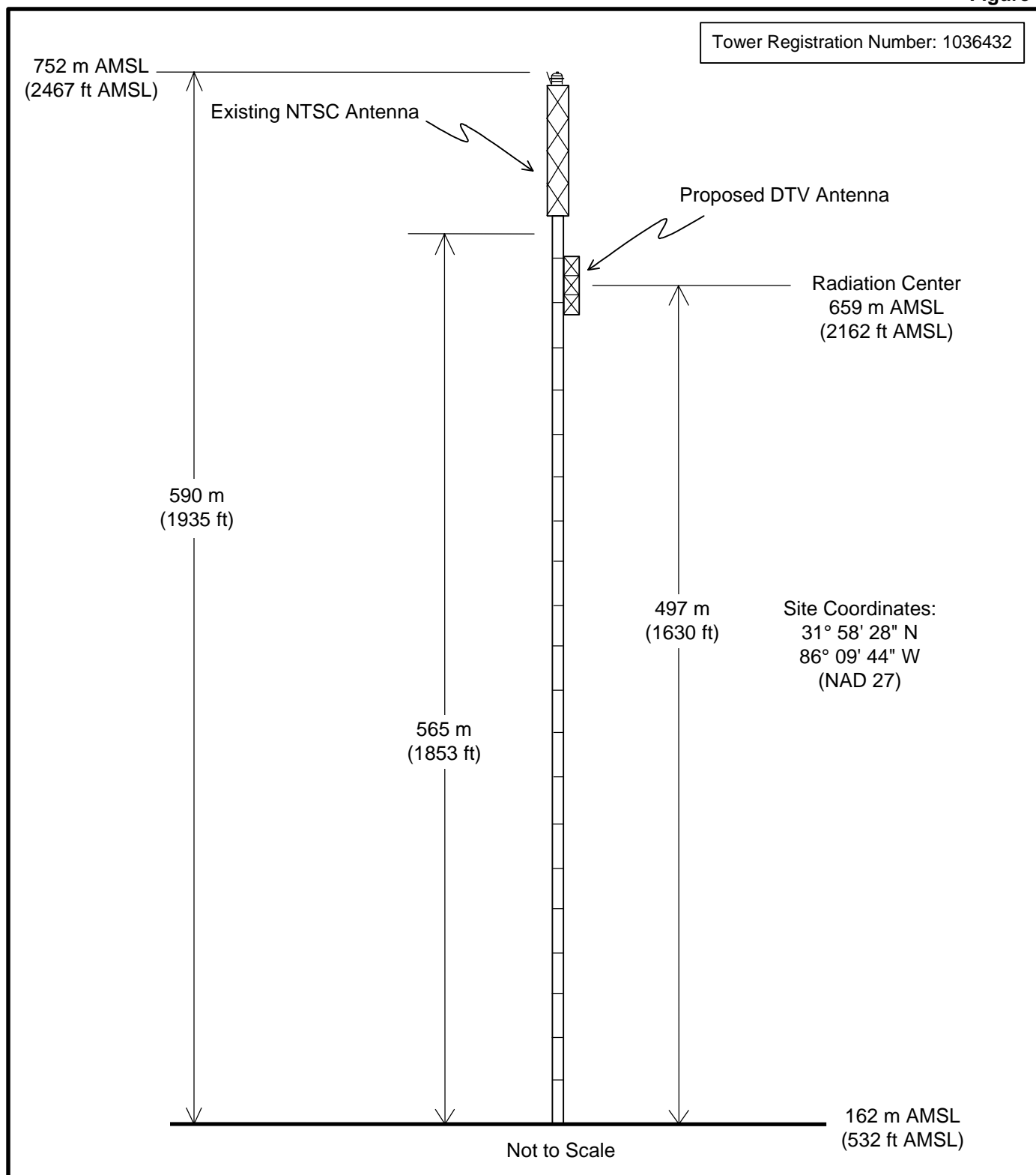
Access to the transmitting site will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure.

Charles Cooper

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 324237
941.329.6000

December 23, 2002

Figure 1

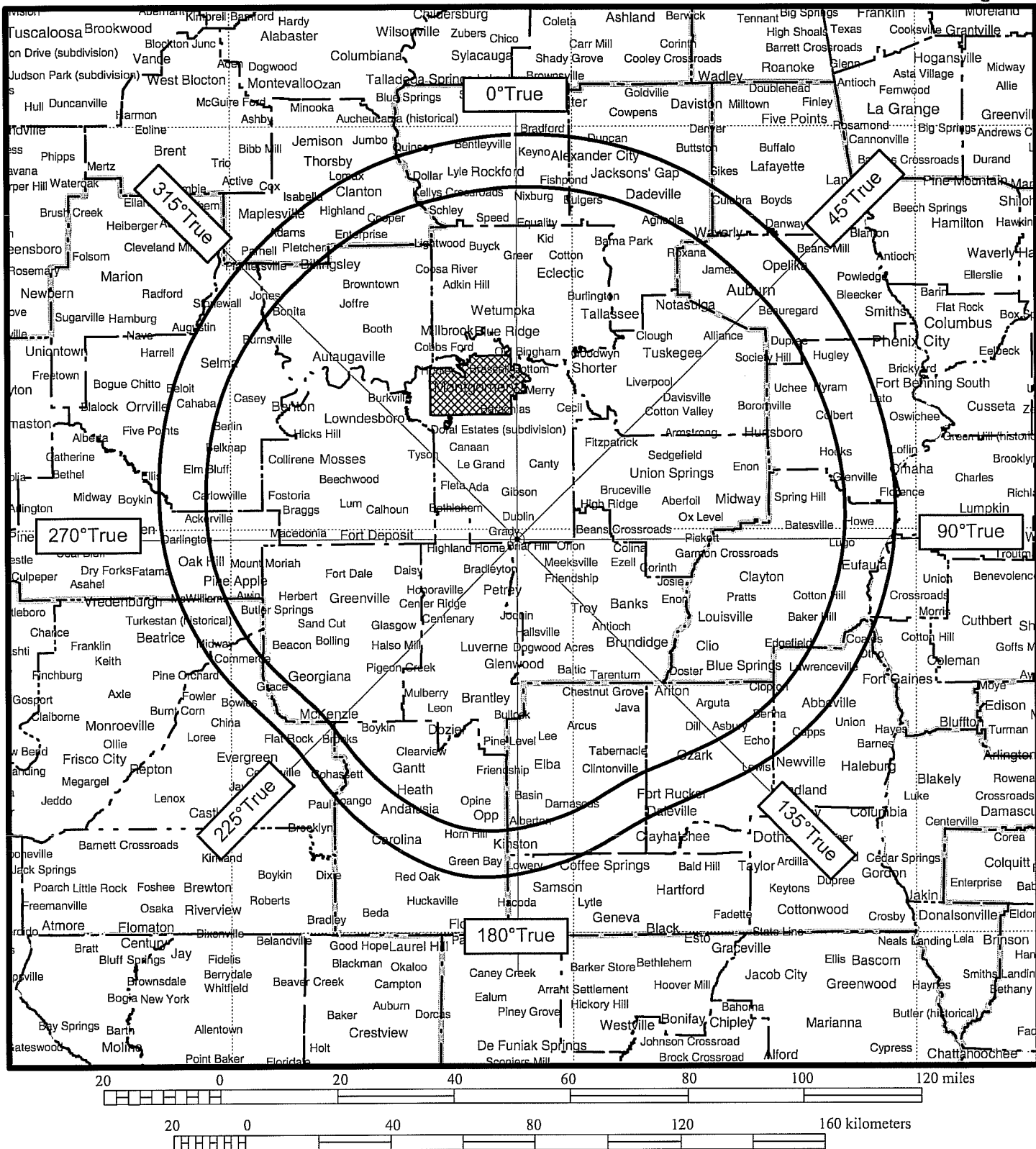


PROPOSED ANTENNA AND SUPPORTING STRUCTURE

TELEVISION STATION WSFA-DT
MONTGOMERY, ALABAMA
CH 14 600 KW (MAX-DA) 530 M

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

Figure 2



DTV NOISE-LIMITED COVERAGE CONTOUR

TELEVISION STATION WSFA-DT
MONTGOMERY, ALABAMA
CH 14 600 KW (MAX-DA) 530 M

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

APPENDIX

MANUFACTURER ANTENNA SPECIFICATIONS



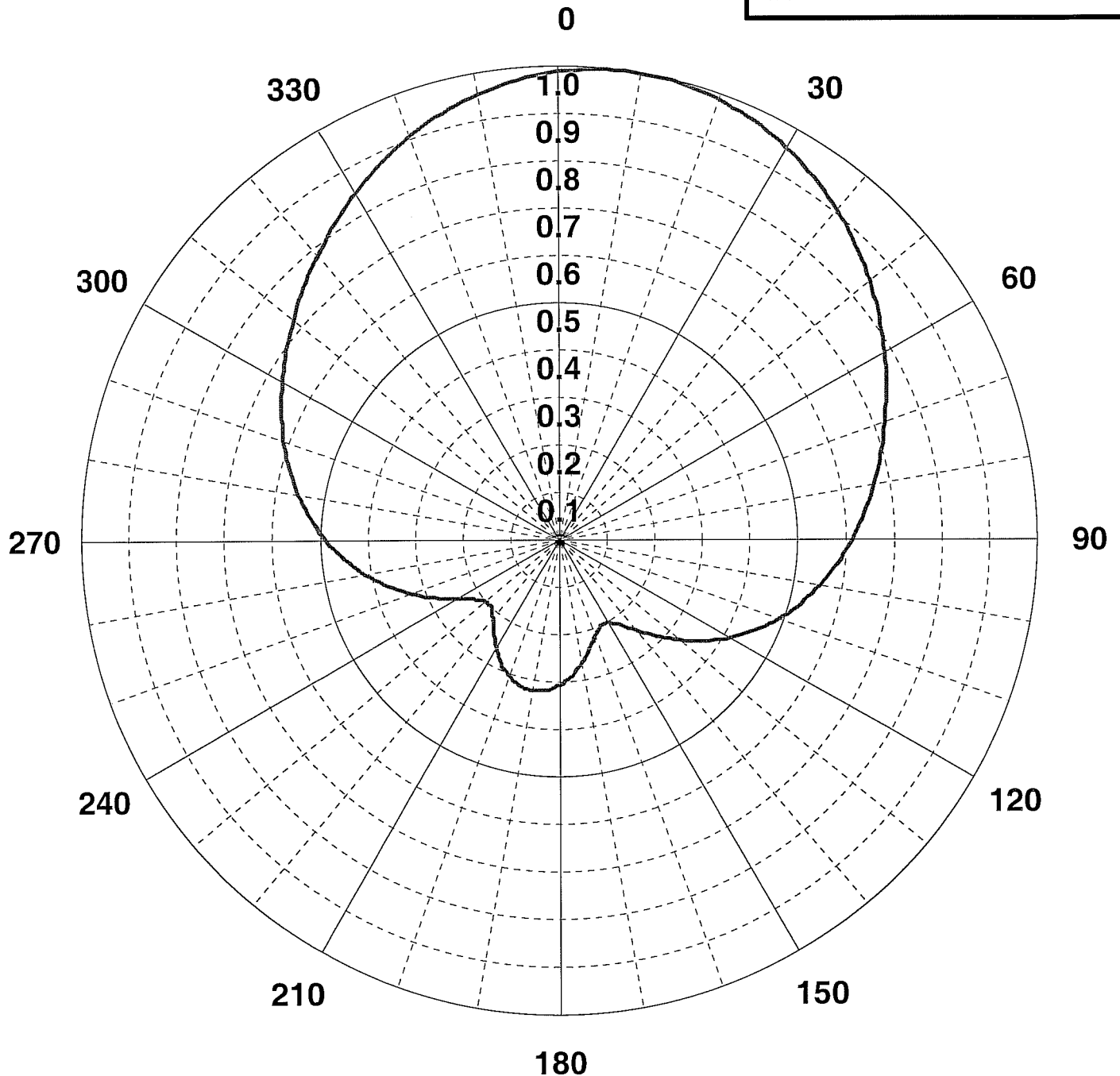
ANDREW

Channel: 14

Type: ATW-C4

Gain: 2.54 (4.05 dB)

Polarization: Horizontal



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company:
Site:
Proposal Number:

Date: 12/22/2002
Author:



Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB
0	0.989	-0.10	72	0.712	-2.95	144	0.223	-13.03	216	0.232	-12.69	288	0.601	-4.42
1	0.991	-0.08	73	0.706	-3.02	145	0.217	-13.27	217	0.228	-12.84	289	0.606	-4.35
2	0.992	-0.07	74	0.701	-3.09	146	0.214	-13.39	218	0.223	-13.03	290	0.612	-4.26
3	0.994	-0.05	75	0.695	-3.16	147	0.210	-13.56	219	0.219	-13.19	291	0.617	-4.19
4	0.995	-0.04	76	0.689	-3.24	148	0.207	-13.68	220	0.214	-13.39	292	0.623	-4.11
5	0.997	-0.03	77	0.684	-3.30	149	0.203	-13.85	221	0.211	-13.51	293	0.628	-4.04
6	0.998	-0.02	78	0.678	-3.38	150	0.200	-13.98	222	0.208	-13.64	294	0.634	-3.96
7	0.998	-0.02	79	0.673	-3.44	151	0.200	-13.98	223	0.205	-13.76	295	0.639	-3.89
8	0.999	-0.01	80	0.667	-3.52	152	0.200	-13.98	224	0.202	-13.89	296	0.645	-3.81
9	0.999	-0.01	81	0.661	-3.60	153	0.199	-14.02	225	0.199	-14.02	297	0.650	-3.74
10	1.000	0.00	82	0.656	-3.66	154	0.199	-14.02	226	0.199	-14.02	298	0.656	-3.66
11	0.999	-0.01	83	0.650	-3.74	155	0.199	-14.02	227	0.199	-14.02	299	0.661	-3.60
12	0.999	-0.01	84	0.645	-3.81	156	0.202	-13.89	228	0.200	-13.98	300	0.667	-3.52
13	0.998	-0.02	85	0.639	-3.89	157	0.205	-13.76	229	0.200	-13.98	301	0.673	-3.44
14	0.998	-0.02	86	0.634	-3.96	158	0.208	-13.64	230	0.200	-13.98	302	0.678	-3.38
15	0.997	-0.03	87	0.628	-4.04	159	0.211	-13.51	231	0.203	-13.85	303	0.684	-3.30
16	0.995	-0.04	88	0.623	-4.11	160	0.214	-13.39	232	0.207	-13.68	304	0.689	-3.24
17	0.994	-0.05	89	0.617	-4.19	161	0.219	-13.19	233	0.210	-13.56	305	0.695	-3.16
18	0.992	-0.07	90	0.612	-4.26	162	0.223	-13.03	234	0.214	-13.39	306	0.701	-3.09
19	0.991	-0.08	91	0.606	-4.35	163	0.228	-12.84	235	0.217	-13.27	307	0.706	-3.02
20	0.989	-0.10	92	0.601	-4.42	164	0.232	-12.69	236	0.223	-13.03	308	0.712	-2.95
21	0.986	-0.12	93	0.595	-4.51	165	0.237	-12.51	237	0.229	-12.80	309	0.717	-2.89
22	0.983	-0.15	94	0.590	-4.58	166	0.242	-12.32	238	0.235	-12.58	310	0.723	-2.82
23	0.981	-0.17	95	0.584	-4.67	167	0.247	-12.15	239	0.241	-12.36	311	0.729	-2.75
24	0.978	-0.19	96	0.578	-4.76	168	0.252	-11.97	240	0.247	-12.15	312	0.735	-2.67
25	0.975	-0.22	97	0.572	-4.85	169	0.257	-11.80	241	0.255	-11.87	313	0.742	-2.59
26	0.971	-0.26	98	0.566	-4.94	170	0.262	-11.63	242	0.263	-11.60	314	0.748	-2.52
27	0.967	-0.29	99	0.560	-5.04	171	0.267	-11.47	243	0.270	-11.37	315	0.754	-2.45
28	0.964	-0.32	100	0.554	-5.13	172	0.272	-11.31	244	0.278	-11.12	316	0.760	-2.38
29	0.960	-0.35	101	0.548	-5.22	173	0.277	-11.15	245	0.286	-10.87	317	0.766	-2.32
30	0.956	-0.39	102	0.542	-5.32	174	0.282	-11.00	246	0.294	-10.63	318	0.773	-2.24
31	0.951	-0.44	103	0.535	-5.43	175	0.287	-10.84	247	0.303	-10.37	319	0.779	-2.17
32	0.947	-0.47	104	0.529	-5.53	176	0.291	-10.72	248	0.311	-10.14	320	0.785	-2.10
33	0.942	-0.52	105	0.523	-5.63	177	0.295	-10.60	249	0.320	-9.90	321	0.791	-2.04
34	0.938	-0.56	106	0.516	-5.75	178	0.298	-10.52	250	0.328	-9.68	322	0.797	-1.97
35	0.933	-0.60	107	0.509	-5.87	179	0.302	-10.40	251	0.337	-9.45	323	0.804	-1.89
36	0.928	-0.65	108	0.503	-5.97	180	0.306	-10.29	252	0.345	-9.24	324	0.810	-1.83
37	0.923	-0.70	109	0.496	-6.09	181	0.308	-10.23	253	0.354	-9.02	325	0.816	-1.77
38	0.917	-0.75	110	0.489	-6.21	182	0.311	-10.14	254	0.362	-8.83	326	0.822	-1.70
39	0.912	-0.80	111	0.482	-6.34	183	0.313	-10.09	255	0.371	-8.61	327	0.829	-1.63
40	0.907	-0.85	112	0.474	-6.48	184	0.316	-10.01	256	0.379	-8.43	328	0.835	-1.57
41	0.901	-0.91	113	0.467	-6.61	185	0.318	-9.95	257	0.388	-8.22	329	0.842	-1.49
42	0.895	-0.96	114	0.459	-6.76	186	0.319	-9.92	258	0.396	-8.05	330	0.848	-1.43
43	0.890	-1.01	115	0.452	-6.90	187	0.320	-9.90	259	0.405	-7.85	331	0.854	-1.37
44	0.884	-1.07	116	0.444	-7.05	188	0.320	-9.90	260	0.413	-7.68	332	0.860	-1.31
45	0.878	-1.13	117	0.436	-7.21	189	0.321	-9.87	261	0.421	-7.51	333	0.866	-1.25
46	0.872	-1.19	118	0.429	-7.35	190	0.322	-9.84	262	0.429	-7.35	334	0.872	-1.19
47	0.866	-1.25	119	0.421	-7.51	191	0.321	-9.87	263	0.436	-7.21	335	0.878	-1.13
48	0.860	-1.31	120	0.413	-7.68	192	0.320	-9.90	264	0.444	-7.05	336	0.884	-1.07
49	0.854	-1.37	121	0.405	-7.85	193	0.320	-9.90	265	0.452	-6.90	337	0.890	-1.01
50	0.848	-1.43	122	0.396	-8.05	194	0.319	-9.92	266	0.459	-6.76	338	0.895	-0.96
51	0.842	-1.49	123	0.388	-8.22	195	0.318	-9.95	267	0.467	-6.61	339	0.901	-0.91
52	0.835	-1.57	124	0.379	-8.43	196	0.316	-10.01	268	0.474	-6.48	340	0.907	-0.85
53	0.829	-1.63	125	0.371	-8.61	197	0.313	-10.09	269	0.482	-6.34	341	0.912	-0.80
54	0.822	-1.70	126	0.362	-8.83	198	0.311	-10.14	270	0.489	-6.21	342	0.917	-0.75
55	0.816	-1.77	127	0.354	-9.02	199	0.308	-10.23	271	0.496	-6.09	343	0.923	-0.70
56	0.810	-1.83	128	0.345	-9.24	200	0.306	-10.29	272	0.503	-5.97	344	0.928	-0.65
57	0.804	-1.89	129	0.337	-9.45	201	0.302	-10.40	273	0.509	-5.87	345	0.933	-0.60
58	0.797	-1.97	130	0.328	-9.68	202	0.298	-10.52	274	0.516	-5.75	346	0.938	-0.56
59	0.791	-2.04	131	0.320	-9.90	203	0.295	-10.60	275	0.523	-5.63	347	0.942	-0.52
60	0.785	-2.10	132	0.311	-10.14	204	0.291	-10.72	276	0.529	-5.53	348	0.947	-0.47
61	0.779	-2.17	133	0.303	-10.37	205	0.287	-10.84	277	0.535	-5.43	349	0.951	-0.44
62	0.773	-2.24	134	0.294	-10.63	206	0.282	-11.00	278	0.542	-5.32	350	0.956	-0.39
63	0.766	-2.32	135	0.286	-10.87	207	0.277	-11.15	279	0.548	-5.22	351	0.960	-0.35
64	0.760	-2.38	136	0.278	-11.12	208	0.272	-11.31	280	0.554	-5.13	352	0.964	-0.32
65	0.754	-2.45	137	0.270	-11.37	209	0.267	-11.47	281	0.560	-5.04	353	0.967	-0.29
66	0.748	-2.52	138	0.263	-11.60	210	0.262	-11.63	282	0.566	-4.94	354	0.971	-0.26
67	0.742	-2.59	139	0.255	-11.87	211	0.257	-11.80	283	0.572	-4.85	355	0.975	-0.22
68	0.735	-2.67	140	0.247	-12.15	212	0.252	-11.97	284	0.578	-4.76	356	0.978	-0.19
69	0.729	-2.75	141	0.241	-12.36	213	0.247	-12.15	285	0.584	-4.67	357	0.981	-0.17
70	0.723	-2.82	142	0.235	-12.58	214	0.242	-12.32	286	0.590	-4.58	358	0.983	-0.15
71	0.717	-2.89	143	0.229	-12.80	215	0.237	-12.51	287	0.595	-4.51	359	0.986	-0.12

ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company:
Site:
Proposal Number:

Author:

Date: 12/22/2002



ANDREW

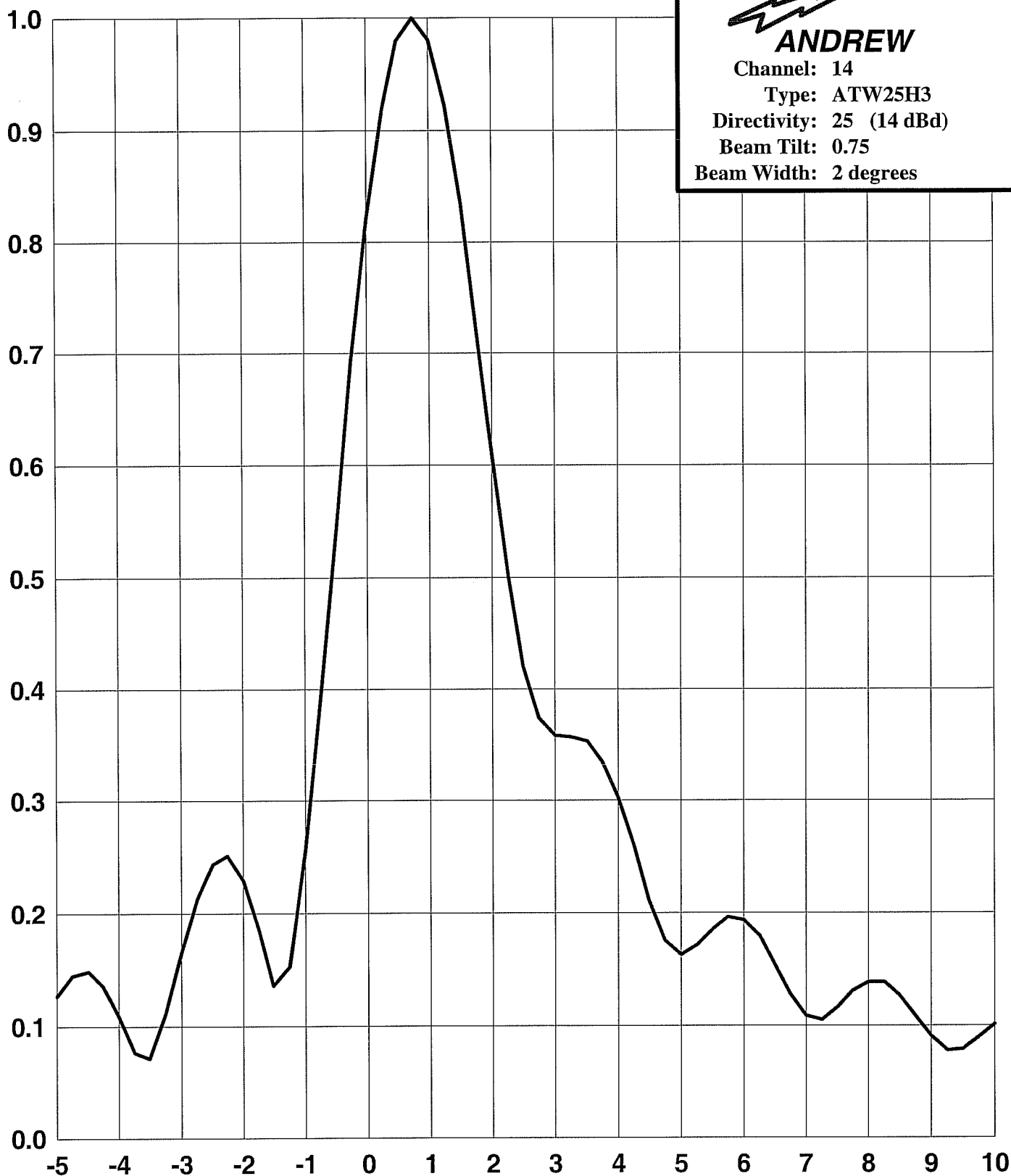
Channel: 14

Type: ATW25H3

Directivity: 25 (14 dBd)

Beam Tilt: 0.75

Beam Width: 2 degrees



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company:
Site:
Proposal Number:

Date: 12/22/2002
Author:



Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB
-5.00	0.127	-17.92	9.00	0.090	-20.92	36.00	0.031	-30.17	63.50	0.037	-28.64
-4.75	0.145	-16.77	9.25	0.078	-22.16	36.50	0.037	-28.64	64.00	0.039	-28.18
-4.50	0.148	-16.59	9.50	0.079	-22.05	37.00	0.033	-29.63	64.50	0.036	-28.87
-4.25	0.135	-17.39	9.75	0.089	-21.01	37.50	0.022	-33.15	65.00	0.031	-30.17
-4.00	0.108	-19.33	10.00	0.101	-19.91	38.00	0.017	-35.39	65.50	0.022	-33.15
-3.75	0.076	-22.38	10.50	0.108	-19.33	38.50	0.026	-31.70	66.00	0.012	-38.42
-3.50	0.071	-22.97	11.00	0.085	-21.41	39.00	0.035	-29.12	66.50	0.005	-46.02
-3.25	0.111	-19.09	11.50	0.062	-24.15	39.50	0.035	-29.12	67.00	0.012	-38.42
-3.00	0.165	-15.65	12.00	0.074	-22.62	40.00	0.028	-31.06	67.50	0.022	-33.15
-2.75	0.213	-13.43	12.50	0.089	-21.01	40.50	0.017	-35.39	68.00	0.031	-30.17
-2.50	0.244	-12.25	13.00	0.080	-21.94	41.00	0.019	-34.42	68.50	0.037	-28.64
-2.25	0.251	-12.01	13.50	0.056	-25.04	41.50	0.029	-30.75	69.00	0.040	-27.96
-2.00	0.230	-12.77	14.00	0.053	-25.51	42.00	0.036	-28.87	69.50	0.041	-27.74
-1.75	0.185	-14.66	14.50	0.071	-22.97	42.50	0.034	-29.37	70.00	0.040	-27.96
-1.50	0.136	-17.33	15.00	0.074	-22.62	43.00	0.025	-32.04	70.50	0.036	-28.87
-1.25	0.152	-16.36	15.50	0.057	-24.88	43.50	0.016	-35.92	71.00	0.030	-30.46
-1.00	0.257	-11.80	16.00	0.042	-27.54	44.00	0.019	-34.42	71.50	0.022	-33.15
-0.75	0.398	-8.00	16.50	0.053	-25.51	44.50	0.030	-30.46	72.00	0.014	-37.08
-0.50	0.550	-5.19	17.00	0.064	-23.88	45.00	0.035	-29.12	72.50	0.005	-46.02
-0.25	0.694	-3.17	17.50	0.057	-24.88	45.50	0.034	-29.37	73.00	0.005	-46.02
0.00	0.821	-1.71	18.00	0.039	-28.18	46.00	0.025	-32.04	73.50	0.013	-37.72
0.25	0.918	-0.74	18.50	0.038	-28.40	46.50	0.016	-35.92	74.00	0.021	-33.56
0.50	0.979	-0.18	19.00	0.053	-25.51	47.00	0.018	-34.89	74.50	0.028	-31.06
0.75	1.000	0.00	19.50	0.056	-25.04	47.50	0.028	-31.06	75.00	0.034	-29.37
1.00	0.980	-0.18	20.00	0.044	-27.13	48.00	0.035	-29.12	75.50	0.038	-28.40
1.25	0.922	-0.71	20.50	0.030	-30.46	48.50	0.036	-28.87	76.00	0.041	-27.74
1.50	0.834	-1.58	21.00	0.039	-28.18	49.00	0.030	-30.46	76.50	0.043	-27.33
1.75	0.725	-2.79	21.50	0.050	-26.02	49.50	0.019	-34.42	77.00	0.043	-27.33
2.00	0.609	-4.31	22.00	0.048	-26.38	50.00	0.014	-37.08	77.50	0.042	-27.54
2.25	0.502	-5.99	22.50	0.033	-29.63	50.50	0.022	-33.15	78.00	0.040	-27.96
2.50	0.420	-7.54	23.00	0.028	-31.06	51.00	0.031	-30.17	78.50	0.038	-28.40
2.75	0.374	-8.54	23.50	0.040	-27.96	51.50	0.036	-28.87	79.00	0.035	-29.12
3.00	0.359	-8.90	24.00	0.047	-26.56	52.00	0.035	-29.12	79.50	0.031	-30.17
3.25	0.358	-8.92	24.50	0.040	-27.96	52.50	0.029	-30.75	80.00	0.027	-31.37
3.50	0.354	-9.02	25.00	0.027	-31.37	53.00	0.019	-34.42	80.50	0.023	-32.77
3.75	0.336	-9.47	25.50	0.028	-31.06	53.50	0.013	-37.72	81.00	0.019	-34.42
4.00	0.303	-10.37	26.00	0.040	-27.96	54.00	0.020	-33.98	81.50	0.015	-36.48
4.25	0.259	-11.73	26.50	0.044	-27.13	54.50	0.030	-30.46	82.00	0.011	-39.17
4.50	0.212	-13.47	27.00	0.035	-29.12	55.00	0.036	-28.87	82.50	0.008	-41.94
4.75	0.176	-15.09	27.50	0.024	-32.40	55.50	0.037	-28.64	83.00	0.005	-46.02
5.00	0.162	-15.81	28.00	0.028	-31.06	56.00	0.032	-29.90	83.50	0.003	-50.46
5.25	0.171	-15.34	28.50	0.039	-28.18	56.50	0.024	-32.40	84.00	0.002	-53.98
5.50	0.186	-14.61	29.00	0.041	-27.74	57.00	0.014	-37.08	84.50	0.003	-50.46
5.75	0.196	-14.15	29.50	0.032	-29.90	57.50	0.013	-37.72	85.00	0.004	-47.96
6.00	0.194	-14.24	30.00	0.022	-33.15	58.00	0.022	-33.15	85.50	0.005	-46.02
6.25	0.179	-14.94	30.50	0.027	-31.37	58.50	0.031	-30.17	86.00	0.006	-44.44
6.50	0.155	-16.19	31.00	0.038	-28.40	59.00	0.037	-28.64	86.50	0.006	-44.44
6.75	0.128	-17.86	31.50	0.039	-28.18	59.50	0.038	-28.40	87.00	0.006	-44.44
7.00	0.108	-19.33	32.00	0.031	-30.17	60.00	0.034	-29.37	87.50	0.005	-46.02
7.25	0.105	-19.58	32.50	0.020	-33.98	60.50	0.026	-31.70	88.00	0.004	-47.96
7.50	0.116	-18.71	33.00	0.025	-32.04	61.00	0.016	-35.92	88.50	0.004	-47.96
7.75	0.130	-17.72	33.50	0.035	-29.12	61.50	0.009	-40.92	89.00	0.002	-53.98
8.00	0.138	-17.20	34.00	0.038	-28.40	62.00	0.014	-37.08	89.50	0.001	-60.00
8.25	0.138	-17.20	34.50	0.031	-30.17	62.50	0.024	-32.40	90.00	0.000	---
8.50	0.127	-17.92	35.00	0.020	-33.98	63.00	0.032	-29.90			
8.75	0.109	-19.25	35.50	0.021	-33.56	63.50	0.037	-28.64			

ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company:
Site:
Proposal Number:

Date: 12/22/2002
Author: