Comprehensive Technical Exhibit

Application for Construction Permit

KXMD-DT – Williston, North Dakota

Reiten Television, Inc.

June, 2008

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General

The following engineering statement and attached exhibits have been prepared for **Reiten Television, Inc.** ("Reiten"), licensee of digital television station KXMD-DT at Williston, North Dakota[1], and are in support of their application for construction permit to modify that facility.[2]

KXMD-DT currently operates with a maximum effective radiated power of 50 kW at a center of radiation of 257 meters above average terrain utilizing a directional antenna. This application seeks to increase the effective radiated power of the facility. No change in the antenna system or transmitter location is proposed under this application.

Discussion of KXMD-DT Allotment and Proposed Facilities

In the Appendix B table of allotments, KXMD-DT is specified as operating in the post-transition environment on channel 14. The technical parameters specified in the appropriate entry are consistent with the parameters authorized under BMPCT-20030609AGD and subsequently constructed. This application seeks to modify those parameters in order to increase the coverage of KXMD-DT in the post-transition environment.

Under the proposed changes to the facility, KXMD-DT would increase its maximum effective radiated power from 50 kW to 100 kW. There is no proposed change to the channel of operation or antenna system. In addition, no change in height or transmitter location is proposed.

As expected since this application is to increase the coverage of KXMD-DT facility, the proposed technical parameters would increase the noise limited service contour of the facility

[1] Reiten submitted its license application for the current KXMD-DT facilities on June 7, 2006 (BLCDT-20060410ADA). Although this application has been accepted for filing by the Commission, the CDBS is not indicative of a grant of the license application.
[2] The facility ID for KXMD is 55683.

beyond that specified in the Appendix B entry. This increase, however, would be less than five miles in all directions. Exhibit E-1 illustrates the proposed and authorized noise limited service contours, while Exhibit E-2 tabulates the distance to these contours.

The proposed increase in the maximum effective radiated power would also increase the population served by KXMD-DT. Interference is predicted to be received from the KMCY facilities at Minot, North Dakota (Facility ID: 22127). KMCY operates on channel 14 as an NTSC facility and is specified in the Appendix B table of allotments as also operating on channel 14 in the post-transition environment. As a result of this flash-cut situation, the predicted service area for KXMD-DT has been considered in the pre-transition environment with KMCY at current NTSC parameters, and also in the post-transition environment under the Appendix B parameters and authorized construction permit parameters.[3] Exhibit E-3a therefore depicts the resulting KXMD-DT service area prior to the KMCY conversion to DTV operations on channel 14 with Exhibit E-3b illustrating the KXMD-DT service area following the DTV transition of KMCY. Attached to each of these exhibits is a tabulation detailing the predicted received interference.

The proposed facility will continue to utilize the Dielectric Communications model 881-24 antenna currently in use. This is a directional antenna with 0.75 degrees of electrical beam tilt and no mechanical beam tilt. Following Exhibit E-3b are six pages which comprise Exhibit E-4. Exhibit E-4 contains the manufacturer's data for the proposed antenna pursuant to Section 73.625(c) of the Commission's Rules. It should be noted that the horizontal plane radiation pattern contained in this exhibit is without rotation. The actual orientation of the main lobe of the antenna is at 90 degrees true. This antenna is not located on a constituent element in an AM antenna system nor in close proximity to an AM facility.

[3] The file number for the KMCY-DT construction permit is BPCDT-20080501ACK.

The proposed facility would be in compliance with the post-transition interference protection provisions of Section 73.616 of the Commission's Rules. Exhibit E-5 contains a Longley-Rice based interference study for the proposed facility. In the creation of this study, a 3-second linearly interpolated terrain database was utilized. The cell size utilized was 2.0 km with terrain elevations sampled at 1.0 km spacing per OET Bulletin 69. Although the proposed facility is predicted to cause interference to KMCY and KMCY-DT, the level of interference is in compliance with Section 73.616 of the Commission's Rules.

The proposed KXMD-DT facilities would satisfy the principal community coverage requirements of Section 73.625 of the Commission's Rules. Exhibit E-7 contains a map illustrating the 48 dBu and 41 dBu F(50,90) service contours along with the corresponding Longley-Rice determined signal level bounded by the 41 dBu F(50,90) service contour. As this map demonstrates, the community of license (Williston, North Dakota) would not only lie entirely within the predicted 48 dBu F(50,90) service contour, but also would receive a signal well in excess of 48 dBu as predicted by the Longley-Rice propagation model.

The proposed KXMD-DT facility would not constitute a substantial environmental impact. The absence of any significant environmental impact is based on the fact that no construction or excavation will take place in the vicinity of the site relative to the proposed facility. KXMD-DT would continue to utilize its existing antenna system and transmission facility.

The proposed facility would also not constitute an RF exposure hazard to persons at the site. Utilizing the equations in OET Bulletin 65 and assuming that all radiation from the antenna is

directed at the ground, the worst case power density from KXMD-DT is predicted to be 72 $\mu W/cm^2$. Since this is less than the upper limit of the uncontrolled environment condition of the applicable safety standard, it is evident that the proposed facility would not by itself constitute an RF exposure hazard. When the vertical radiation pattern is considered and co-located FM stations also considered, the aggregate power density at ground level, assumed to occur at all points at the site, is 28.2 $\mu W/cm^2$. This calculated level does not exceed the uncontrolled environment condition of the applicable safety standards. The applicant certifies that it will coordinate with all users of the site to ensure that workers are not exposed to levels of non-ionizing radiation in excess of the applicable safety standards. Such coordination will include, but is not necessarily limited to, a reduction in transmitter power or cessation of operation.

The requirements of Section 73.1030 of the Commission's Rules are not applicable in this particular case. The proposed facility would not operate in any of the zones described in the referenced section, and is not in close proximity to any of the installations described in that section. In addition, the proposed facility is not located in proximity to any protected FCC installation.

The structure utilized for the facilities described in this application has been registered with the Commission. Specifically an Antenna Structure Registration Number of 1037969 has been assigned to the tower.

Affidavit

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.

Above signature is digitized copy of actual signature
License Expires November 30, 2009

Jeremy D. Ruck, PE
June 9, 2008

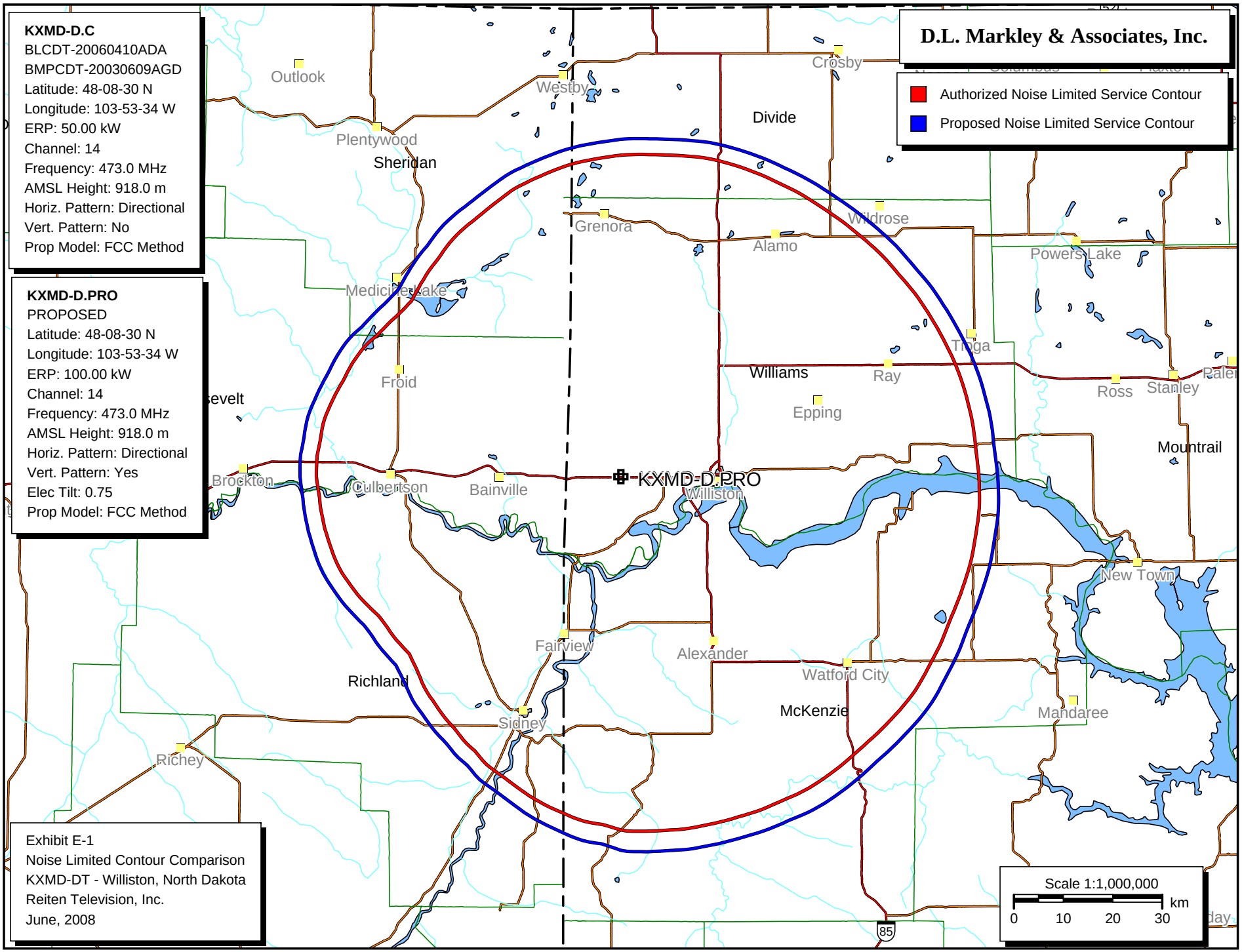

KXMD-D.C
BLCDT-20060410ADA
BMPCDT-20030609AGD
Latitude: 48-08-30 N
Longitude: 103-53-34 W
ERP: 50.00 kW
Channel: 14
Frequency: 473.0 MHz
AMSL Height: 918.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Method
KXMD-D.PRO
PROPOSED
Latitude: 48-08-30 N
Longitude: 103-53-34 W
ERP: 100.00 kW
Channel: 14
Frequency: 473.0 MHz
AMSL Height: 918.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.75
Prop Model: FCC Method
D.L. Markley & Associates, Inc.
Authorized Noise Limited Service Contour
Proposed Noise Limited Service Contour
Outlook
Westby
Crosby
Divide
Plentywood
Sheridan
Grenora
Wildrose
Alamo
Powers Lake
Medicine Lake
Froid
Williams
Ray
Epping
Ross
Stanley
Mountrail
Brockton
Culbertson
Bainville
KXMD-D.PRO
Williston
New Town
Fairview
Alexander
Watford City
Richland
McKenzie
Sidney
Mandaree
Richey
85
Exhibit E-1
Noise Limited Contour Comparison
KXMD-DT - Williston, North Dakota
Reiten Television, Inc.
June, 2008
Scale 1:1,000,000
km
0
10
20
30

Exhibit E-2 - Comparison of Proposed and Authorized Contours

	HAAT	Contour Distance in kilometers		Proposed to Licensed Difference	
Azimuth	in meters	Authorized	Proposed	kilometers	miles
0	219.3	64.8	68.0	3.2	1.99
10	223.8	65.8	69.0	3.2	1.99
20	233.0	66.9	70.1	3.2	1.99
30	234.4	67.4	70.7	3.3	2.05
40	238.5	68.1	71.4	3.3	2.05
50	247.9	69.1	72.5	3.4	2.11
60	251.7	70.1	73.5	3.4	2.11
70	266.5	71.1	74.7	3.6	2.24
80	272.7	71.7	75.5	3.8	2.36
90	278.2	72.2	76.1	3.9	2.42
100	283.2	72.6	76.5	3.9	2.42
110	285.1	72.5	76.4	3.9	2.42
120	294.3	72.9	76.9	4.0	2.49
130	305.2	73.4	77.6	4.2	2.61
140	309.1	73.2	77.4	4.2	2.61
150	317.4	73.4	77.6	4.2	2.61
160	316.3	72.7	76.9	4.2	2.61
170	317.7	72.2	76.4	4.2	2.61
180	316.6	71.3	75.4	4.1	2.55
190	298.0	68.8	72.5	3.7	2.30
200	271.4	65.5	68.9	3.4	2.11
210	252.0	62.2	65.5	3.3	2.05
220	243.1	59.0	62.4	3.4	2.11
230	223.5	55.7	59.2	3.5	2.17
240	224.4	56.4	59.9	3.5	2.17
250	240.3	59.3	62.7	3.4	2.11
260	239.7	60.6	64.0	3.4	2.11
270	244.2	61.4	64.7	3.3	2.05
280	245.8	61.0	64.3	3.3	2.05
290	238.0	59.1	62.5	3.4	2.11
300	232.1	56.8	60.4	3.6	2.24
310	213.9	55.1	58.6	3.5	2.17
320	216.6	57.3	60.8	3.5	2.17
330	209.7	59.6	62.9	3.3	2.05
340	213.0	62.0	65.2	3.2	1.99
350	216.3	63.7	66.8	3.1	1.93

Note: Noise Limited Contour (Proposed and Authorized) is 41 dBu F(50,90).
Contour value is not dipole adjusted.

D.L. Markley & Associates, Inc.
Consulting Engineers
2104 West Moss Avenue
Peoria, Illinois 61604

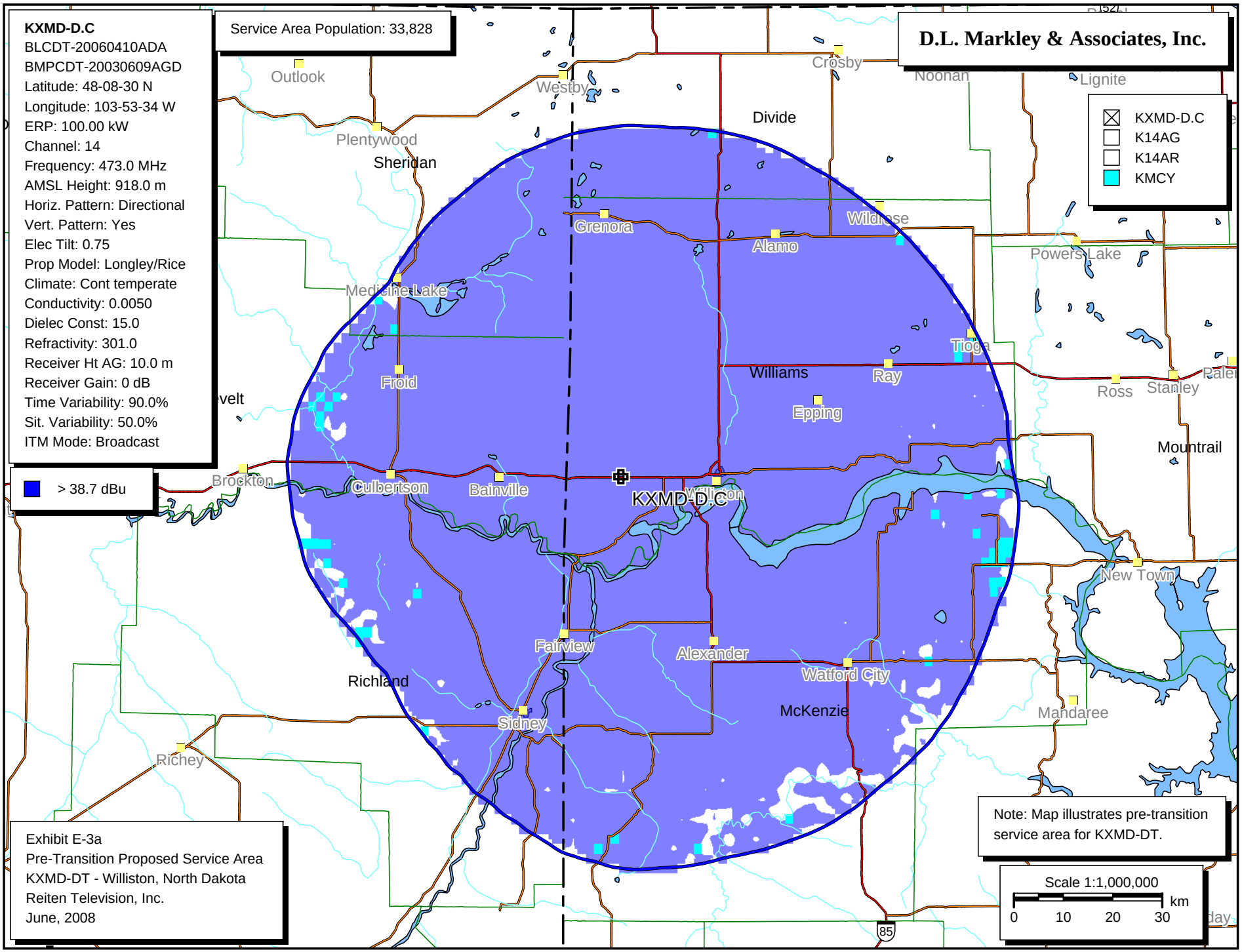

KXMD-D.C
BLCDT-20060410ADA
BMPCDT-20030609AGD
Latitude: 48-08-30 N
Longitude: 103-53-34 W
ERP: 100.00 kW
Channel: 14
Frequency: 473.0 MHz
AMSL Height: 918.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.75
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
> 38.7 dBu
Service Area Population: 33,828
D.L. Markley & Associates, Inc.
KXMD-D.C
K14AG
K14AR
KMCY
Outlook
Westby
Crosby
Noonan
Lignite
Divide
Plentywood
Sheridan
Grenora
Alamo
Powers Lake
Medicine Lake
Froid
Williams
Ray
Epping
Ross
Stanley
Mountrail
Brockton
Culbertson
Bainville
KXMD-D.C
New Town
Fairview
Alexander
Watford City
Richland
McKenzie
Sidney
Mandaree
Richey
85
Exhibit E-3a
Pre-Transition Proposed Service Area
KXMD-DT - Williston, North Dakota
Reiten Television, Inc.
June, 2008
Note: Map illustrates pre-transition service area for KXMD-DT.
Scale 1:1,000,000
0 10 20 30 km

Exhibit E-3a
Pre-transition service area populstion report

KXMD-D.C (14) Williston, ND - BMPCDT-20030609AGD
Broadcast Type: Digital Service: T
Lat: 48-08-30 N Lng: 103-53-34 W ERP: 100.0 kW AMSL: 918.0 m
TV Incoming Interference Study
Interference Considered Within: FCC Contour: 38.72 dBu
Signal Resolution: 2.0 km
LR Profile Spacing Increment: 1.0 km
Consider NTSC Taboo: Yes
KWX error points are considered to
     be interference free coverage.
# of radials computed for protected contour: 360
Protected contour calculated using 8 radial HAAT.
Threshold for reception: 38.7197
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 6/9/2008
TV Database Date: 6/7/2008

Primary Terrain: V-Soft 3 Second US Terrain
Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

Percentages calculated using a baseline population of 34,652.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
KMCY (14-)	465	824	2.378	150.64

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
KMCY (14-)	824	2.378	824	2.378

Stations considered which do not cause interference:

     K14AG (14N)
     K14AR (14N)

Call Letters	City	State	Dist	Bear
K14AG (14N)	Circle, Etc.	MT	150.1	230.2
K14AR (14N)	Glasgow	MT	203.9	273.0
KMCY (14-)	Minot	ND	187.1	92.1

Totals for KXMD-D.C (14)

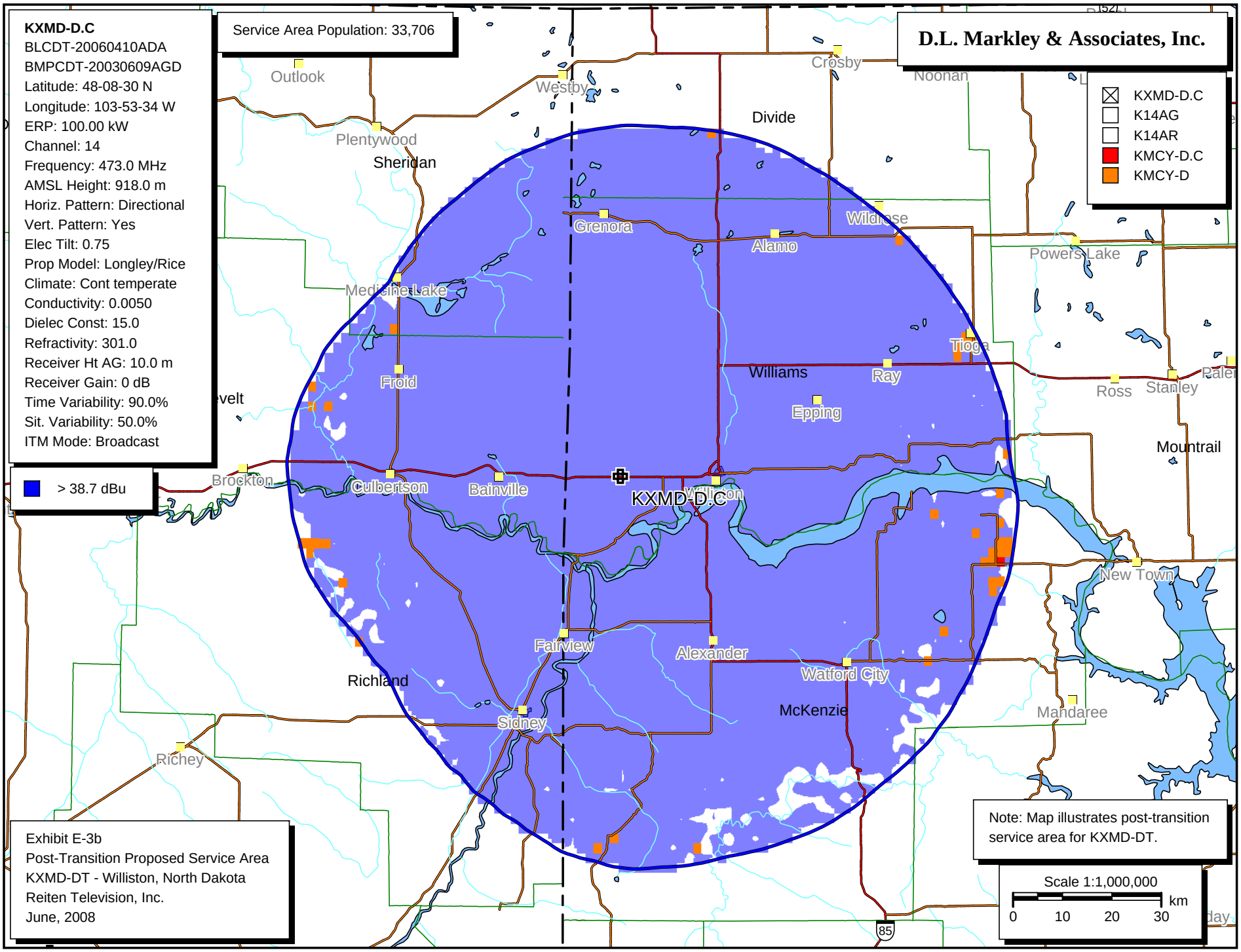
Calculation Area Population:	34,712	(16542.4	sq. km)
Not Affected by Terrain Loss:	34,652	(16381.1	sq. km)
Total NTSC Interference:	824	(150.6	sq. km)
DTV Only Interference:	0	(0.0	sq. km)
Total DTV Interference:	0	(0.0	sq. km)
Interfered Population:	824	(150.6	sq. km)
Interference Free:	33,828	(16230.4	sq. km)
Percent Interference:	2.38		
Terrain Blocked Population:	60	(161.3	sq. km)
Contour Area Population:	34,909		

Interference Free Breakdown:

White:	31,257	(92.4%)
Black:	30	(0.1%)
Hispanic:	427	(1.3%)
Native American:	1,462	(4.3%)
Asian:	56	(0.2%)
Pacific Islander:	5	(0.0%)
Mixed Race:	581	(1.7%)
Other:	10	(0.0%)
Total:	33,828	

	Housing Units	Population	% of County
Montana			
Richland County			
County Pop	4,557	9,667	
KXMD-D.C (14)	4,025	8,458	
KMCY (14-)	8	15	0.18
Ix Free	4,017	8,443	99.82
Roosevelt County			
County Pop	4,044	10,620	
KXMD-D.C (14)	931	1,936	
KMCY (14-)	5	9	0.46
Ix Free	926	1,927	99.54
Sheridan County			
County Pop	2,167	4,105	
KXMD-D.C (14)	392	749	
KMCY (14-)	2	10	1.34
Ix Free	390	739	98.66

	Housing Units	Population	% of County
North Dakota			
Divide County			
County Pop	1,469	2,283	
KXMD-D.C (14)	118	164	
KMCY (14-)	1	0	0.00
Ix Free	117	164	100.00
McKenzie County			
County Pop	2,719	5,737	
KXMD-D.C (14)	2,108	4,150	
KMCY (14-)	24	41	0.99
Ix Free	2,084	4,109	99.01
Williams County			
County Pop	9,680	19,761	
KXMD-D.C (14)	9,356	19,195	
KMCY (14-)	425	749	3.90
Ix Free	8,931	18,446	96.10


KXMD-D.C
BLCDT-20060410ADA
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Channel: 14
Frequency: 473.0 MHz
AMSL Height: 918.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.75
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
> 38.7 dBu
Service Area Population: 33,706
D.L. Markley & Associates, Inc.
KXMD-D.C
K14AG
K14AR
KMCY-D.C
KMCY-D
Outlook
Westby
Crosby
Noonan
Divide
Plentywood
Sheridan
Grenora
Alamo
Powers Lake
Medicine Lake
Froid
Williams
Ray
Epping
Ross
Stanley
Mountrail
Brockton
Culbertson
Bainville
KXMD-D.C
New Town
Fairview
Alexander
Watford City
Richland
McKenzie
Sidney
Mandaree
Richey
85
Exhibit E-3b
Post-Transition Proposed Service Area
KXMD-DT - Williston, North Dakota
Reiten Television, Inc.
June, 2008
Note: Map illustrates post-transition service area for KXMD-DT.
Scale 1:1,000,000
0 10 20 30 km

Exhibit E-3b
Post-transition service area population report.

KXMD-D.C (14) Williston, ND - BMPCDT-20030609AGD
Broadcast Type: Digital Service: T
Lat: 48-08-30 N Lng: 103-53-34 W ERP: 100.0 kW AMSL: 918.0 m
TV Incoming Interference Study
Interference Considered Within: FCC Contour: 38.72 dBu
Signal Resolution: 2.0 km
LR Profile Spacing Increment: 1.0 km
Consider NTSC Taboo: Yes
KWX error points are considered to
     be interference free coverage.
# of radials computed for protected contour: 360
Protected contour calculated using 8 radial HAAT.
Threshold for reception: 38.7197
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 6/9/2008
TV Database Date: 6/7/2008

Primary Terrain: V-Soft 3 Second US Terrain
Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

Percentages calculated using a baseline population of 34,652.

Stations which cause interference:

Call Letters	H Units	Population	%	Area (sq. km)
KMCY-D.C (14)	504	946	2.730	81.87
KMCY-D (14)	526	982	2.834	130.95

Masking Summary:

	Total Interference		Unique Interference	
Call Letters	Population	%	Population	%
KMCY-D.C (14)	946	2.730	0	0.000
KMCY-D (14)	982	2.834	36	0.104

Stations considered which do not cause interference:

     K14AG (14N)
     K14AR (14N)

Call Letters	City	State	Dist	Bear
K14AG (14N)	Circle, Etc.	MT	150.1	230.2
K14AR (14N)	Glasgow	MT	203.9	273.0
KMCY-D.C (14)	Minot	ND	187.1	92.1
KMCY-D (14)	MINOT	ND	187.1	92.1

Totals for KXMD-D.C (14)

Calculation Area Population:	34,712	(16542.4	sq. km)
Not Affected by Terrain Loss:	34,652	(16381.1	sq. km)
Total NTSC Interference:	0	(0.0	sq. km)
DTV Only Interference:	982	(131.0	sq. km)
Total DTV Interference:	982	(131.0	sq. km)
Interfered Population:	982	(131.0	sq. km)
Interference Free:	33,670	(16250.1	sq. km)
Percent Interference:	2.83		
Terrain Blocked Population:	60	(161.3	sq. km)
Contour Area Population:	34,909		

Interference Free Breakdown:

White:	31,105	(92.4%)
Black:	30	(0.1%)
Hispanic:	426	(1.3%)
Native American:	1,462	(4.3%)
Asian:	56	(0.2%)
Pacific Islander:	5	(0.0%)
Mixed Race:	578	(1.7%)
Other:	8	(0.0%)
Total:	33,670	

	Housing Units	Population	% of County
Montana			
Richland County			
County Pop	4,557	9,667	
KXMD-D.C (14)	4,025	8,458	
KMCY-D.C (14)	3	2	0.02
KMCY-D (14)	5	9	0.11
Ix Free	4,020	8,449	99.89
Roosevelt County			
County Pop	4,044	10,620	
KXMD-D.C (14)	931	1,936	
KMCY-D (14)	4	7	0.36
Ix Free	927	1,929	99.64
Sheridan County			
County Pop	2,167	4,105	
KXMD-D.C (14)	392	749	

KMCY-D (14)	2	10	1.34
Ix Free	390	739	98.66

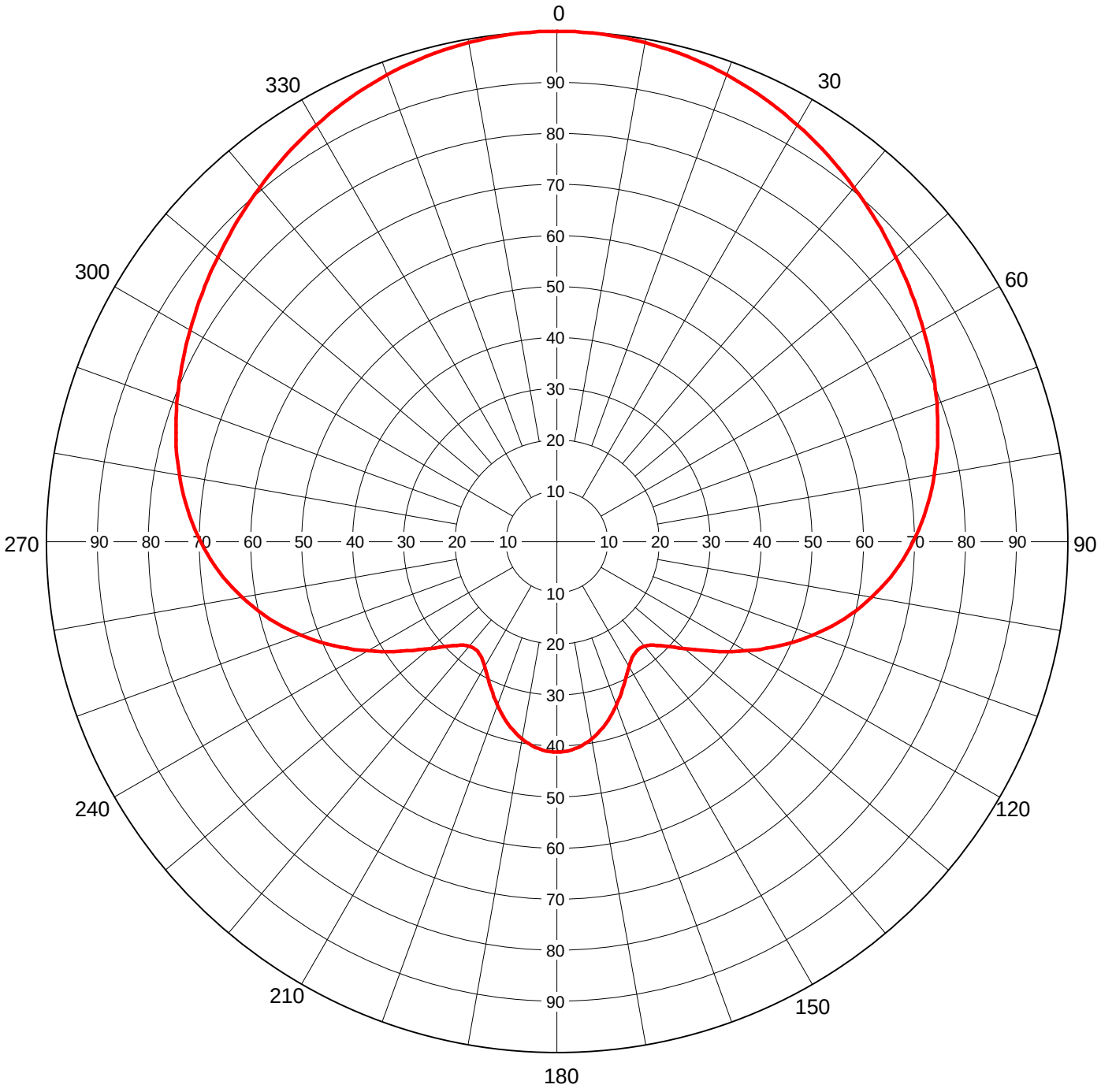
	Housing Units	Population	% of County
North Dakota			
Divide County			
County Pop	1,469	2,283	
KXMD-D.C (14)	118	164	
KMCY-D (14)	1	0	0.00
Ix Free	117	164	100.00
McKenzie County			
County Pop	2,719	5,737	
KXMD-D.C (14)	2,108	4,150	
KMCY-D.C (14)	17	30	0.72
KMCY-D (14)	25	42	1.01
Ix Free	2,083	4,108	98.99
Williams County			
County Pop	9,680	19,761	
KXMD-D.C (14)	9,356	19,195	
KMCY-D.C (14)	484	914	4.76
KMCY-D (14)	489	914	4.76
Ix Free	8,867	18,281	95.24

Dielectric

Proposal Number		Revision	
Date	**29 May 2003**		
Call Letters		Channel	**14**
Location			
Customer			
Antenna Type	**881-24**		

AZIMUTH PATTERN

Gain	**2.10 (3.22 dB)**	Frequency	**473 MHz**
Calculated / Measured	**Calculated**	Drawing #	**881-14**



Remarks:

Dielectric

Proposal Number | Revision
Date **29 May 2003**
Call Letters | Channel **14**
Location
Customer
Antenna Type **881-24**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **881-14**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	1.000	45	0.886	90	0.698	135	0.288	180	0.412	225	0.288	270	0.698	315	0.886
1	1.000	46	0.882	91	0.691	136	0.282	181	0.412	226	0.294	271	0.704	316	0.890
2	1.000	47	0.878	92	0.685	137	0.277	182	0.411	227	0.301	272	0.709	317	0.894
3	0.999	48	0.875	93	0.678	138	0.273	183	0.410	228	0.309	273	0.715	318	0.898
4	0.999	49	0.871	94	0.671	139	0.270	184	0.409	229	0.317	274	0.721	319	0.902
5	0.998	50	0.867	95	0.664	140	0.267	185	0.407	230	0.326	275	0.726	320	0.906
6	0.998	51	0.863	96	0.657	141	0.265	186	0.405	231	0.335	276	0.731	321	0.909
7	0.997	52	0.859	97	0.650	142	0.264	187	0.402	232	0.344	277	0.736	322	0.913
8	0.996	53	0.855	98	0.642	143	0.264	188	0.399	233	0.354	278	0.741	323	0.917
9	0.994	54	0.852	99	0.634	144	0.265	189	0.396	234	0.364	279	0.746	324	0.921
10	0.993	55	0.848	100	0.626	145	0.266	190	0.392	235	0.374	280	0.751	325	0.925
11	0.992	56	0.844	101	0.618	146	0.268	191	0.388	236	0.384	281	0.755	326	0.928
12	0.990	57	0.840	102	0.609	147	0.271	192	0.384	237	0.395	282	0.759	327	0.932
13	0.988	58	0.837	103	0.601	148	0.274	193	0.379	238	0.406	283	0.764	328	0.935
14	0.986	59	0.833	104	0.592	149	0.278	194	0.375	239	0.417	284	0.768	329	0.939
15	0.985	60	0.829	105	0.583	150	0.283	195	0.369	240	0.427	285	0.772	330	0.942
16	0.982	61	0.825	106	0.573	151	0.288	196	0.364	241	0.438	286	0.776	331	0.946
17	0.980	62	0.822	107	0.564	152	0.293	197	0.359	242	0.449	287	0.780	332	0.949
18	0.978	63	0.818	108	0.554	153	0.298	198	0.353	243	0.460	288	0.784	333	0.952
19	0.975	64	0.814	109	0.544	154	0.304	199	0.347	244	0.471	289	0.788	334	0.956
20	0.973	65	0.811	110	0.534	155	0.310	200	0.341	245	0.482	290	0.792	335	0.959
21	0.970	66	0.807	111	0.524	156	0.316	201	0.335	246	0.492	291	0.796	336	0.962
22	0.968	67	0.803	112	0.514	157	0.322	202	0.328	247	0.503	292	0.799	337	0.965
23	0.965	68	0.799	113	0.503	158	0.328	203	0.322	248	0.514	293	0.803	338	0.968
24	0.962	69	0.796	114	0.492	159	0.335	204	0.316	249	0.524	294	0.807	339	0.970
25	0.959	70	0.792	115	0.482	160	0.341	205	0.310	250	0.534	295	0.811	340	0.973
26	0.956	71	0.788	116	0.471	161	0.347	206	0.304	251	0.544	296	0.814	341	0.975
27	0.952	72	0.784	117	0.460	162	0.353	207	0.298	252	0.554	297	0.818	342	0.978
28	0.949	73	0.780	118	0.449	163	0.359	208	0.293	253	0.564	298	0.822	343	0.980
29	0.946	74	0.776	119	0.438	164	0.364	209	0.288	254	0.573	299	0.825	344	0.982
30	0.942	75	0.772	120	0.427	165	0.369	210	0.283	255	0.583	300	0.829	345	0.985
31	0.939	76	0.768	121	0.417	166	0.375	211	0.278	256	0.592	301	0.833	346	0.986
32	0.935	77	0.764	122	0.406	167	0.379	212	0.274	257	0.601	302	0.837	347	0.988
33	0.932	78	0.759	123	0.395	168	0.384	213	0.271	258	0.609	303	0.840	348	0.990
34	0.928	79	0.755	124	0.384	169	0.388	214	0.268	259	0.618	304	0.844	349	0.992
35	0.925	80	0.751	125	0.374	170	0.392	215	0.266	260	0.626	305	0.848	350	0.993
36	0.921	81	0.746	126	0.364	171	0.396	216	0.265	261	0.634	306	0.852	351	0.994
37	0.917	82	0.741	127	0.354	172	0.399	217	0.264	262	0.642	307	0.855	352	0.996
38	0.913	83	0.736	128	0.344	173	0.402	218	0.264	263	0.650	308	0.859	353	0.997
39	0.909	84	0.731	129	0.335	174	0.405	219	0.265	264	0.657	309	0.863	354	0.998
40	0.906	85	0.726	130	0.326	175	0.407	220	0.267	265	0.664	310	0.867	355	0.998
41	0.902	86	0.721	131	0.317	176	0.409	221	0.270	266	0.671	311	0.871	356	0.999
42	0.898	87	0.715	132	0.309	177	0.410	222	0.273	267	0.678	312	0.875	357	0.999
43	0.894	88	0.709	133	0.301	178	0.411	223	0.277	268	0.685	313	0.878	358	1.000
44	0.890	89	0.704	134	0.294	179	0.412	224	0.282	269	0.691	314	0.882	359	1.000

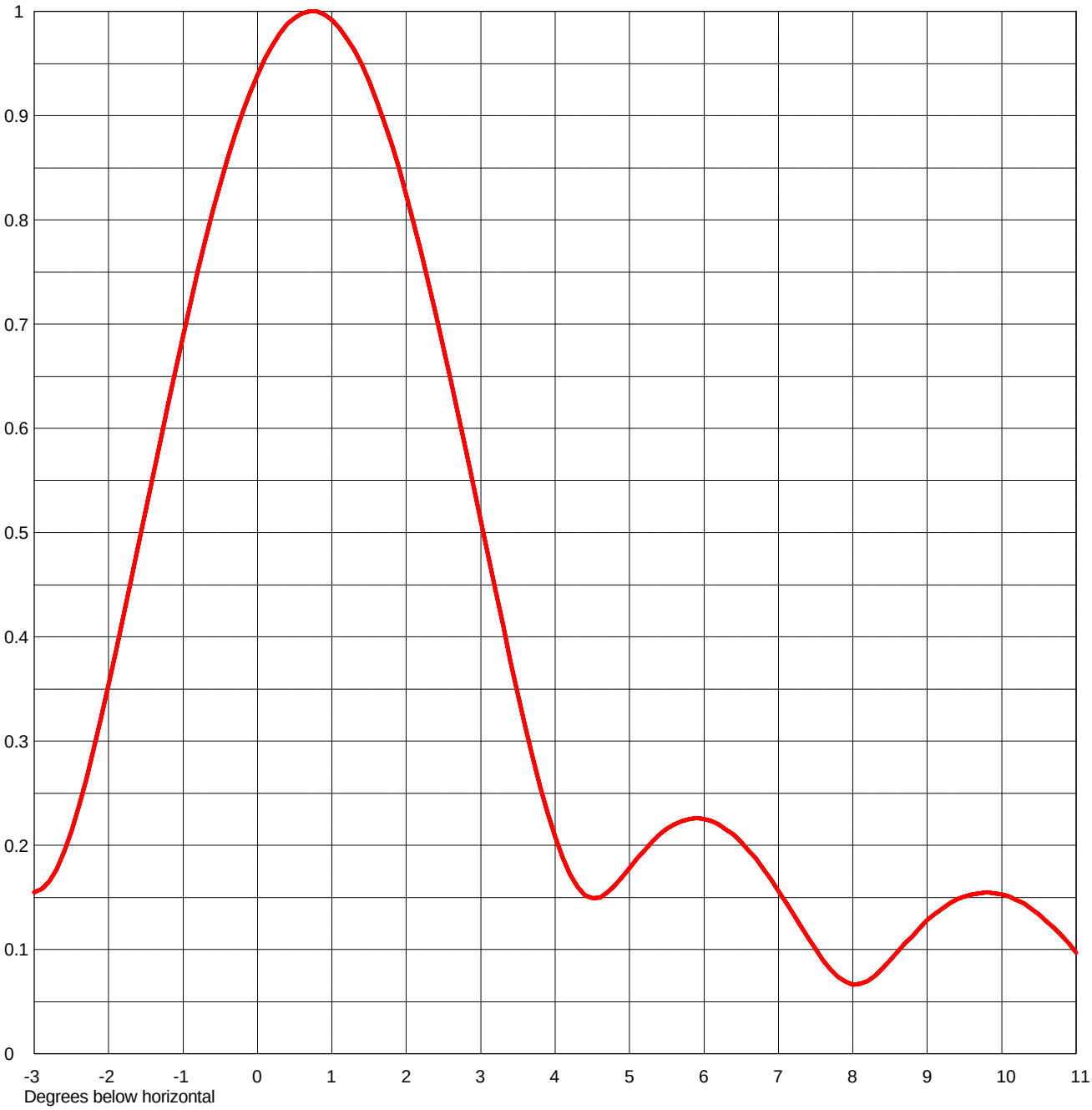
Remarks:

Dielectric

Proposal Number		Revision	
Date	**29 May 2003**		
Call Letters		Channel	**14**
Location			
Customer			
Antenna Type	**881-24**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**16.3 (12.12 dB)**	Beam Tilt	**0.75 Degrees**
RMS Gain at Horizontal	**14.4 (11.58 dB)**	Frequency	**473.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**24I163075**



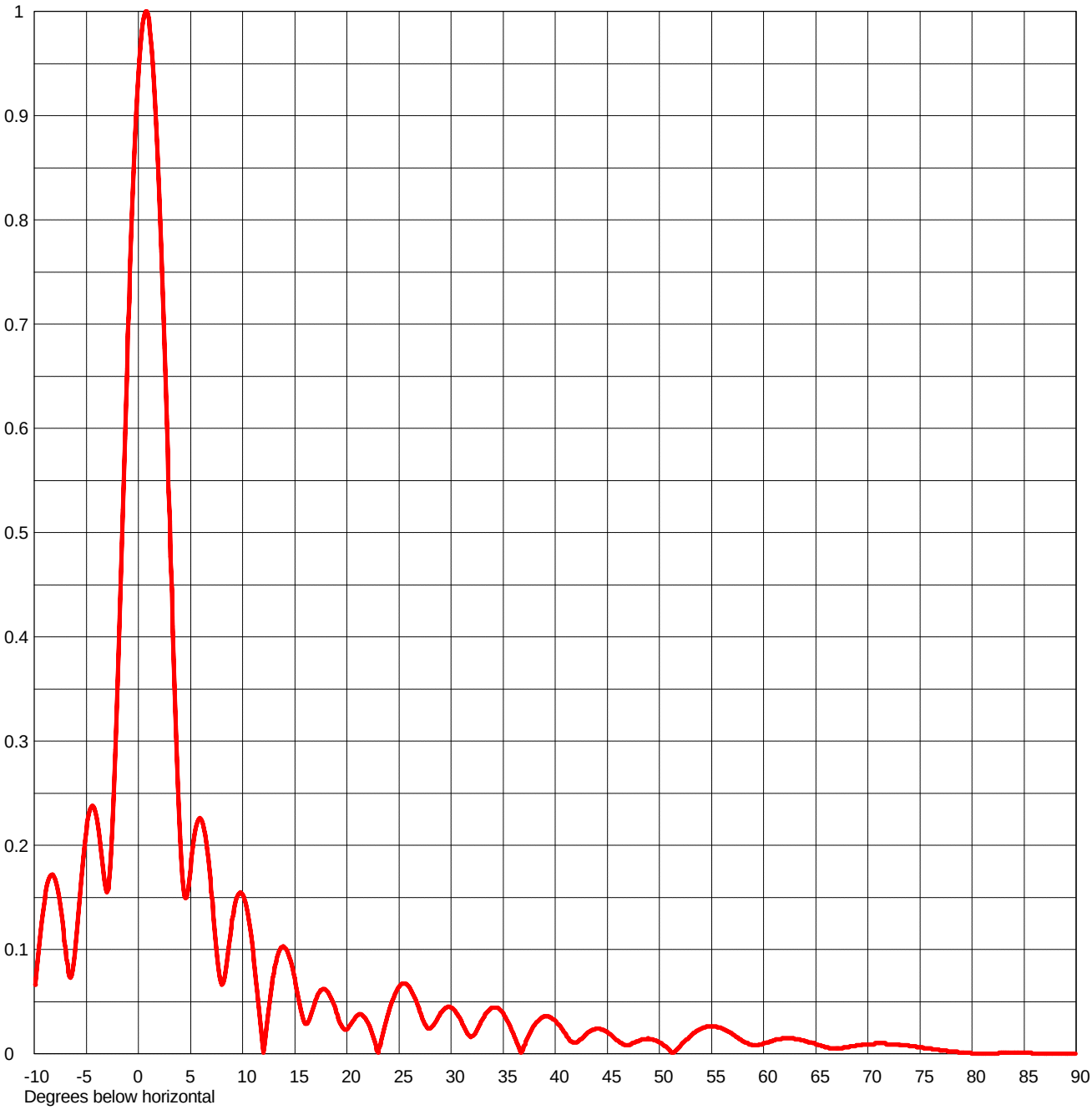
Remarks:

Dielectric

Proposal Number		Revision	
Date	**29 May 2003**		
Call Letters		Channel	**14**
Location			
Customer			
Antenna Type	**881-24**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**16.3 (12.12 dB)**	Beam Tilt	**0.75 Degrees**
RMS Gain at Horizontal	**14.4 (11.58 dB)**	Frequency	**473.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**24I163075-90**



Remarks:

Dielectric

Proposal Number | Revision
Date **29 May 2003**
Call Letters | Channel **14**
Location
Customer
Antenna Type **881-24**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **24I163075**

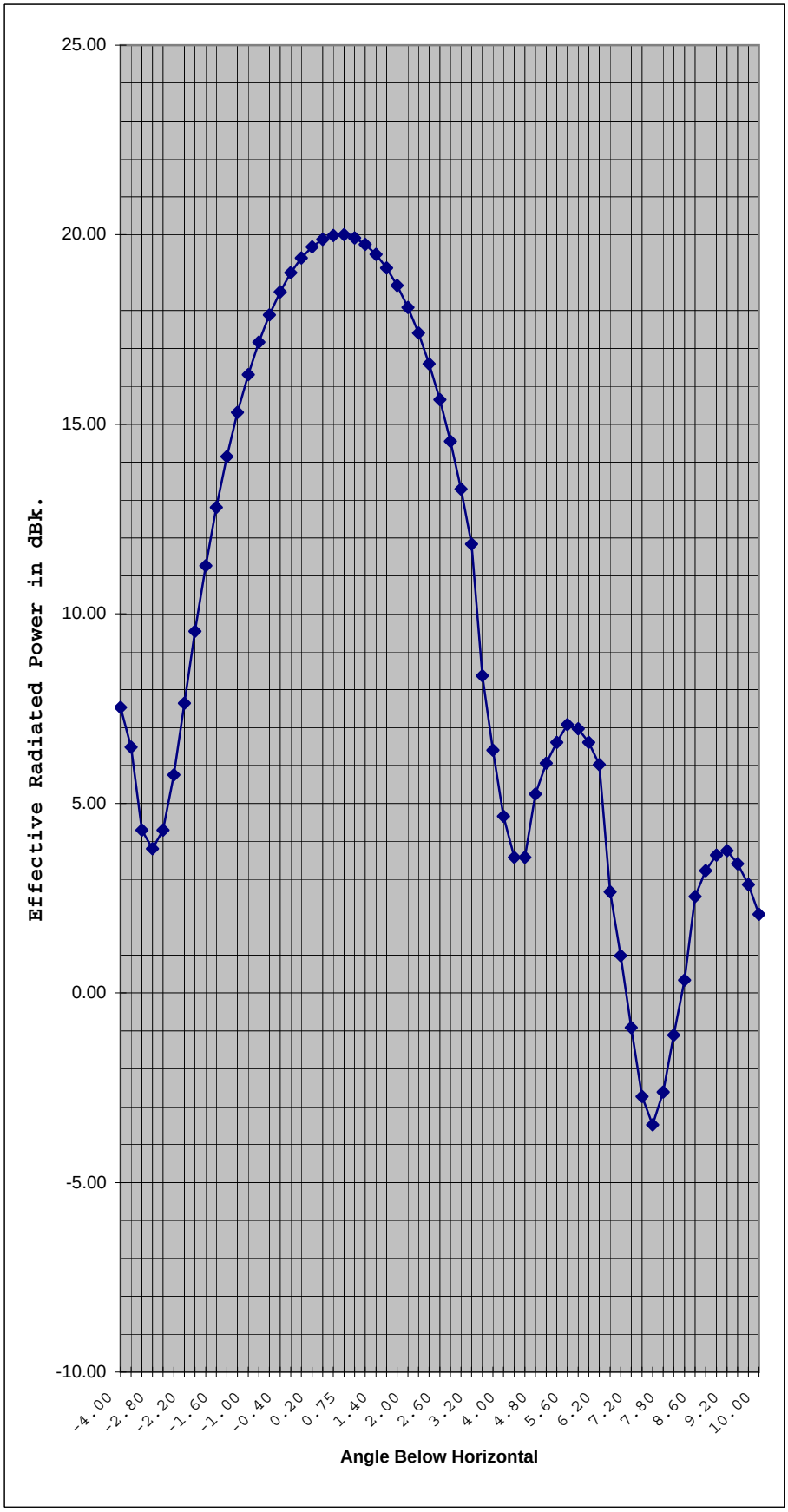
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.054	2.4	0.709	10.6	0.127	30.5	0.039	51.0	0.003	71.5	0.010
-9.5	0.107	2.6	0.645	10.8	0.114	31.0	0.031	51.5	0.002	72.0	0.009
-9.0	0.148	2.8	0.579	11.0	0.097	31.5	0.021	52.0	0.007	72.5	0.009
-8.5	0.170	3.0	0.511	11.5	0.051	32.0	0.017	52.5	0.013	73.0	0.009
-8.0	0.168	3.2	0.443	12.0	0.001	32.5	0.023	53.0	0.017	73.5	0.008
-7.5	0.142	3.4	0.377	12.5	0.043	33.0	0.033	53.5	0.021	74.0	0.007
-7.0	0.100	3.6	0.314	13.0	0.078	33.5	0.040	54.0	0.024	74.5	0.007
-6.5	0.073	3.8	0.256	13.5	0.098	34.0	0.044	54.5	0.026	75.0	0.006
-6.0	0.107	4.0	0.208	14.0	0.102	34.5	0.044	55.0	0.026	75.5	0.005
-5.5	0.166	4.2	0.172	14.5	0.092	35.0	0.039	55.5	0.026	76.0	0.005
-5.0	0.215	4.4	0.152	15.0	0.072	35.5	0.030	56.0	0.024	76.5	0.004
-4.5	0.237	4.6	0.150	15.5	0.047	36.0	0.019	56.5	0.022	77.0	0.003
-4.0	0.226	4.8	0.161	16.0	0.029	36.5	0.006	57.0	0.019	77.5	0.003
-3.5	0.186	5.0	0.178	16.5	0.036	37.0	0.007	57.5	0.016	78.0	0.002
-3.0	0.155	5.2	0.195	17.0	0.051	37.5	0.018	58.0	0.012	78.5	0.002
-2.8	0.165	5.4	0.210	17.5	0.061	38.0	0.027	58.5	0.010	79.0	0.001
-2.6	0.194	5.6	0.220	18.0	0.061	38.5	0.033	59.0	0.008	79.5	0.001
-2.4	0.238	5.8	0.225	18.5	0.053	39.0	0.036	59.5	0.008	80.0	0.000
-2.2	0.292	6.0	0.225	19.0	0.040	39.5	0.035	60.0	0.010	80.5	0.000
-2.0	0.354	6.2	0.220	19.5	0.027	40.0	0.032	60.5	0.011	81.0	0.000
-1.8	0.420	6.4	0.210	20.0	0.023	40.5	0.026	61.0	0.013	81.5	0.000
-1.6	0.488	6.6	0.195	20.5	0.030	41.0	0.019	61.5	0.014	82.0	0.000
-1.4	0.556	6.8	0.177	21.0	0.037	41.5	0.012	62.0	0.015	82.5	0.000
-1.2	0.624	7.0	0.156	21.5	0.037	42.0	0.011	62.5	0.015	83.0	0.001
-1.0	0.689	7.2	0.134	22.0	0.030	42.5	0.014	63.0	0.014	83.5	0.001
-0.8	0.751	7.4	0.111	22.5	0.017	43.0	0.019	63.5	0.014	84.0	0.001
-0.6	0.808	7.6	0.090	23.0	0.001	43.5	0.022	64.0	0.012	84.5	0.001
-0.4	0.859	7.8	0.074	23.5	0.020	44.0	0.024	64.5	0.011	85.0	0.001
-0.2	0.903	8.0	0.066	24.0	0.039	44.5	0.023	65.0	0.009	85.5	0.001
0.0	0.939	8.2	0.070	24.5	0.054	45.0	0.021	65.5	0.008	86.0	0.000
0.2	0.968	8.4	0.082	25.0	0.064	45.5	0.017	66.0	0.006	86.5	0.000
0.4	0.988	8.6	0.098	25.5	0.067	46.0	0.013	66.5	0.005	87.0	0.000
0.6	0.998	8.8	0.113	26.0	0.064	46.5	0.009	67.0	0.005	87.5	0.000
0.8	1.000	9.0	0.128	26.5	0.054	47.0	0.008	67.5	0.005	88.0	0.000
1.0	0.992	9.2	0.139	27.0	0.041	47.5	0.010	68.0	0.006	88.5	0.000
1.2	0.974	9.4	0.148	27.5	0.028	48.0	0.012	68.5	0.007	89.0	0.000
1.4	0.949	9.6	0.153	28.0	0.024	48.5	0.014	69.0	0.008	89.5	0.000
1.6	0.914	9.8	0.155	28.5	0.030	49.0	0.014	69.5	0.009	90.0	0.000
1.8	0.873	10.0	0.153	29.0	0.039	49.5	0.013	70.0	0.009		
2.0	0.824	10.2	0.147	29.5	0.044	50.0	0.011	70.5	0.009		
2.2	0.769	10.4	0.139	30.0	0.044	50.5	0.007	71.0	0.010		

Remarks:

Exhibit E-4 - VERTICAL RADIATION PATTERN

Note: Relative field same for all azimuths.
ERP in dBk based on maximum ERP azimuths.

Angle	Relative Field	ERP dBk.
-4.00	0.238	7.53
-3.50	0.211	6.49
-3.00	0.164	4.30
-2.80	0.155	3.81
-2.60	0.164	4.30
-2.40	0.194	5.76
-2.20	0.241	7.64
-2.00	0.300	9.54
-1.80	0.366	11.27
-1.60	0.437	12.81
-1.40	0.510	14.15
-1.20	0.583	15.31
-1.00	0.654	16.31
-0.80	0.722	17.17
-0.60	0.784	17.89
-0.40	0.841	18.50
-0.20	0.891	19.00
0.00	0.932	19.39
0.20	0.964	19.68
0.40	0.986	19.88
0.60	0.998	19.98
0.75	1.000	20.00
1.00	0.990	19.91
1.20	0.971	19.74
1.40	0.942	19.48
1.60	0.904	19.12
1.80	0.857	18.66
2.00	0.802	18.08
2.20	0.742	17.41
2.40	0.676	16.60
2.60	0.606	15.65
2.80	0.534	14.55
3.00	0.462	13.29
3.20	0.391	11.84
3.60	0.262	8.37
3.80	0.209	6.40
4.00	0.171	4.66
4.20	0.151	3.58
4.40	0.151	3.58
4.80	0.183	5.25
5.00	0.201	6.06
5.20	0.214	6.61
5.60	0.226	7.08
5.80	0.223	6.97
6.00	0.214	6.61
6.20	0.200	6.02
6.80	0.136	2.67
7.00	0.112	0.98
7.20	0.090	-0.92
7.40	0.073	-2.73
7.60	0.067	-3.48
7.80	0.074	-2.62
8.00	0.088	-1.11
8.20	0.104	0.34
8.60	0.134	2.54
8.80	0.145	3.23
9.00	0.152	3.64
9.20	0.154	3.75
9.60	0.148	3.41
9.80	0.139	2.86
10.00	0.127	2.08



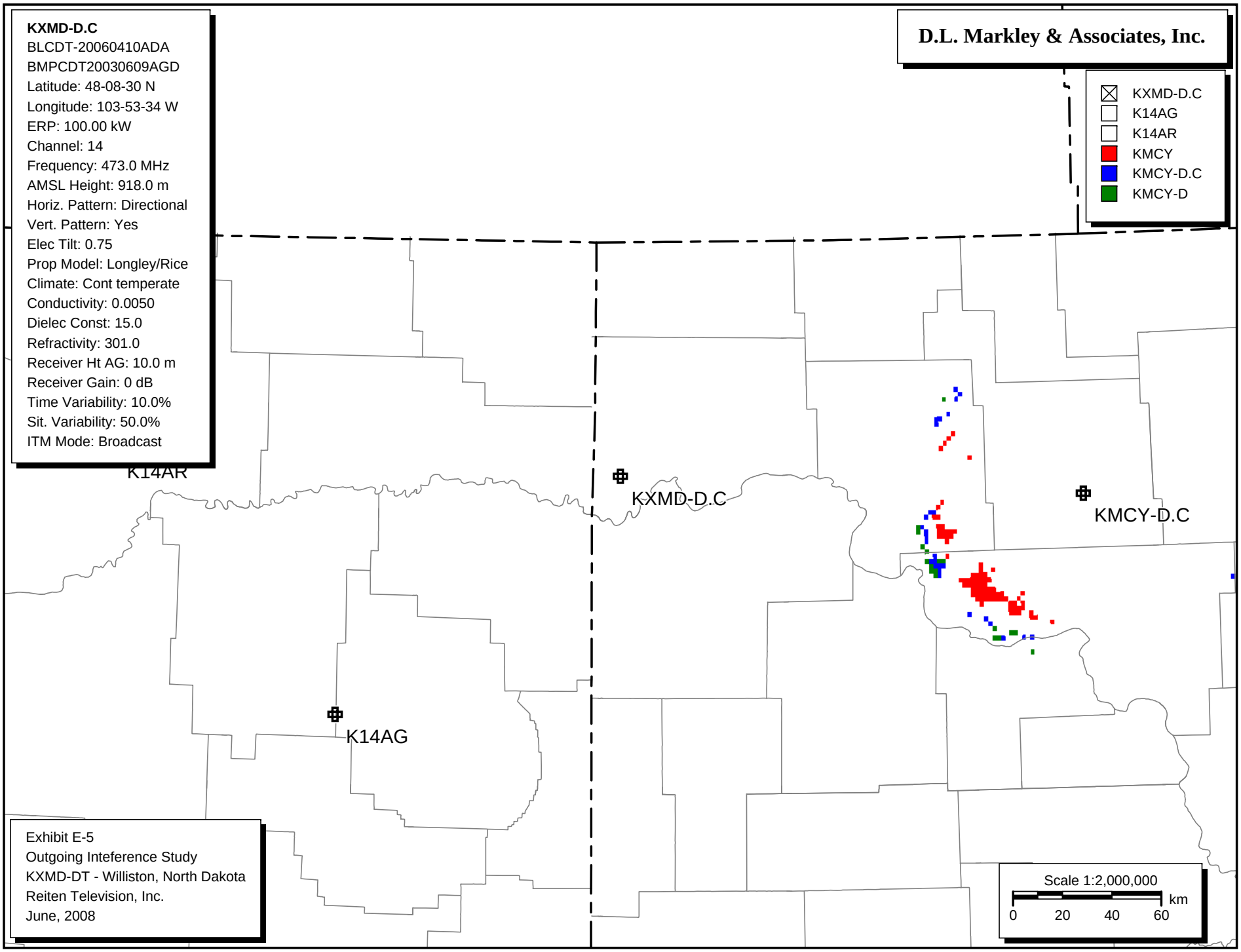

KXMD-D.C
BLCDT-20060410ADA
BMPCDT20030609AGD
Latitude: 48-08-30 N
Longitude: 103-53-34 W
ERP: 100.00 kW
Channel: 14
Frequency: 473.0 MHz
AMSL Height: 918.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.75
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 301.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 10.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
D.L. Markley & Associates, Inc.
KXMD-D.C
K14AG
K14AR
KMCY
KMCY-D.C
KMCY-D
K14AR
KXMD-D.C
KMCY-D.C
K14AG
Exhibit E-5
Outgoing Inteference Study
KXMD-DT - Williston, North Dakota
Reiten Television, Inc.
June, 2008
Scale 1:2,000,000
0 20 40 60 km

Exhibit E-5
Outgoing Interference Population Report
Based on proposed KXMD-DT facilities.

KXMD-D.C (14) Williston, ND - BMPCDT20030609AGD
Broadcast Type: Digital Service: T
Lat: 48-08-30 N Lng: 103-53-34 W ERP: 100.0 kW AMSL: 918.0 m
TV Outgoing Interference Study
Signal Resolution: 2.0 km
Consider NTSC Taboo: Yes
KWX error points are considered to
     be interference free coverage.
Default # of radials computed for contours: 72
Contours calculated using 8 radial HAAT.
LR Profile Spacing Increment: 1.0 km
Masked interference points are being
     counted as interference.
Pop Centroid DB: 2000 US Census (SF1)

Study Date: 6/9/2008
TV Database Date: 6/7/2008

Primary Terrain: V-Soft 3 Second US Terrain
Secondary Terrain: V-Soft 30 Second US Database

Population Database: 2000 US Census (SF1)

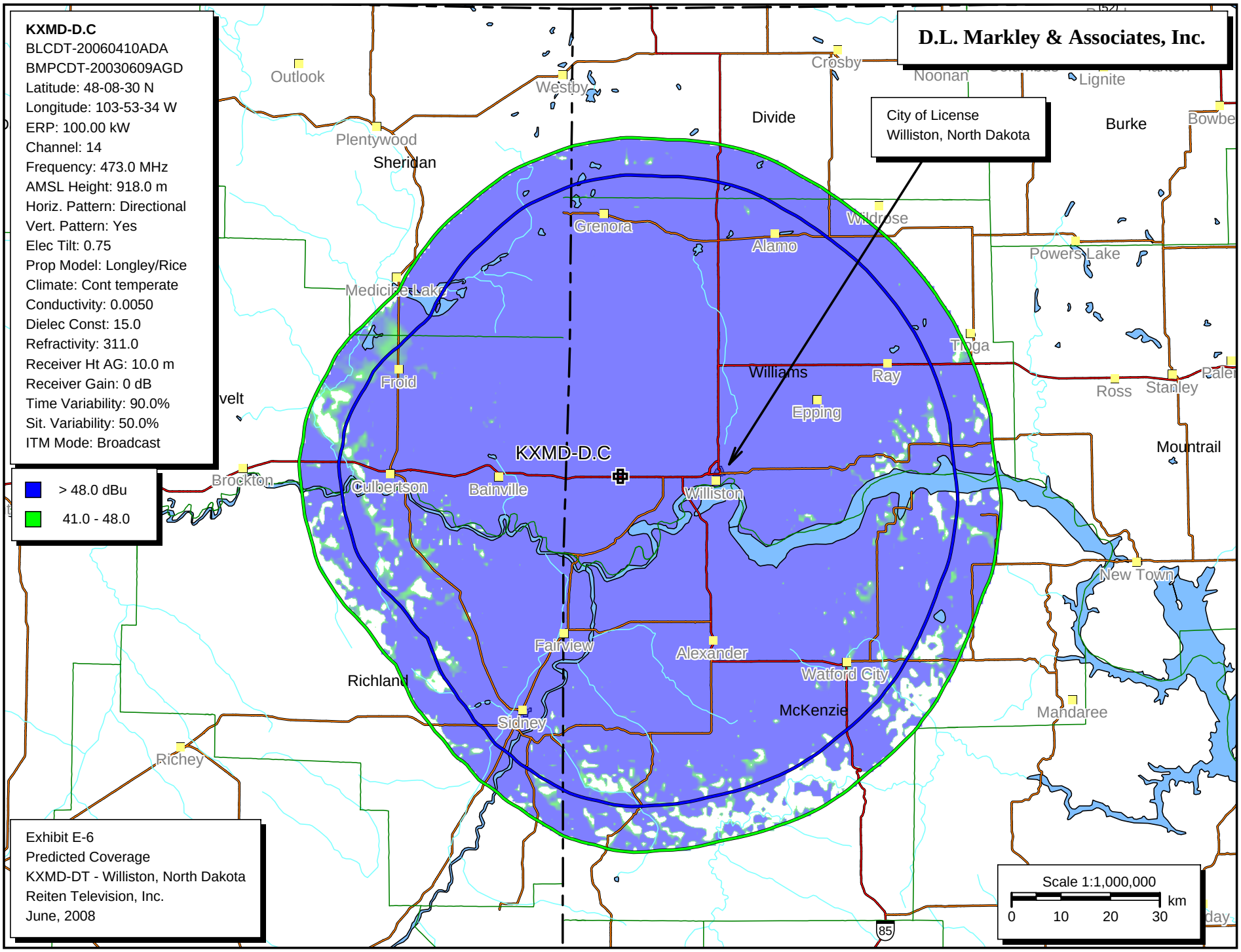
Stations Considered:

Call Letters	City	State	Dist	Bear
K14AG (14N)	Circle, Etc.	MT	150.1	230.2
K14AR (14N)	Glasgow	MT	203.9	273.0
KMCY (14-)	Minot	ND	187.1	92.1
KMCY-D.C (14)	Minot	ND	187.1	92.1
KMCY-D (14)	MINOT	ND	187.1	92.1

Call	Area	HUnits	Contour	Masked Ix	Unmasked Ix	%
K14AG (14N)	0.0	0	30	0	0	0.0
K14AR (14N)	0.0	0	4,069	0	0	0.0
KMCY (14-)	269.9	74	67,837	0	161	0.2
KMCY-D.C (14)	101.8	8	69,273	0	10	0.0
KMCY-D (14)	128.3	2	69,691	0	7	0.0

	Housing Units	Population
North Dakota		
McLean County		

Total	5,264	9,311
KMCY (14-)	54	121
KMCY-D.C (14)	0	0
KMCY-D (14)	0	0
Mountrail County		
Total	3,438	6,631
KMCY (14-)	20	40
KMCY-D.C (14)	8	10
KMCY-D (14)	2	7


KXMD-D.C
BLCDT-20060410ADA
BMPCDT-20030609AGD
Latitude: 48-08-30 N
Longitude: 103-53-34 W
ERP: 100.00 kW
Channel: 14
Frequency: 473.0 MHz
AMSL Height: 918.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 0.75
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 10.0 m
Receiver Gain: 0 dB
Time Variability: 90.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast
> 48.0 dBu
41.0 - 48.0
D.L. Markley & Associates, Inc.
City of License
Williston, North Dakota
KXMD-D.C
Outlook
Westby
Crosby
Noonan
Lignite
Divide
Burke
Bowbe
Plentywood
Sheridan
Grenora
Wildrose
Alamo
Powers Lake
Medicine Lake
Froid
Williams
Ray
Epping
Ross
Stanley
Mountrail
Brockton
Culbertson
Bainville
Williston
New Town
Fairview
Alexander
Watford City
Richland
McKenzie
Sidney
Mandaree
Richey
Exhibit E-6
Predicted Coverage
KXMD-DT - Williston, North Dakota
Reiten Television, Inc.
June, 2008
Scale 1:1,000,000
km
0
10
20
30
85