

TECHNICAL EXHIBIT
SPECIAL TEMPORARY AUTHORITY (STA)
STATION KBMY(DT)
BISMARCK, NORTH DAKOTA
CH 16 1.7 KW (MAX-DA) 94 M

Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station KBMY(DT) at Bismarck, North Dakota. This application requests a Special Temporary Authority (STA) for a digital television operation on KBMY(DT)'s current DTV channel 16 at Bismarck employing a PSI PSILPS8-16 directional antenna and an effective radiated power (ERP) of 1.7 kilowatts.

Proposed Facilities

Station KBMY(DT) proposes to operate on DTV channel 16 from a transmitter site with an antenna structure registration (ASR) of 1241339. The antenna height above average terrain for the channel 16 DTV operation is 94 meters. The proposed directional ERP level of 1.7 kilowatts will not result in the herein proposed noise-limited contour extending beyond its current FCC approved *Appendix B* allocated maximum effective radiated power in any azimuthal direction.¹

¹ See Seventh Report And Order And Eighth Further Notice Of Proposed Rule Making in the Matter of Advanced Television Systems and their Impact Upon the Existing Television Broadcast Service, MB Docket 87-268, Released August 6, 2007; Adopted August 1, 2007.

The proposed DTV transmitter site will be located at a transmitter site with an ASR of 1241339. Therefore, the proposed site location is:

46° 49' 32" North Latitude
100° 46' 05" West Longitude

A sketch of antenna and pertinent elevations are included as Figure 2.

The Appendix contains the vertical and horizontal plane radiation patterns for the proposed antenna system.

Figure 3 is a map showing the DTV predicted coverage contour and the associated *Appendix B* noise-limited coverage contour. The extent of the contour has been calculated using the normal FCC prediction method. The Bismarck city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Population Served

The herein proposed KBMY(DT) facility is predicted to serve 90,181 persons, pre-transition, and 90,357 persons, post-transition, all based upon the 2000 Census. KBMY(DT)'s associated authorized final post-transition facility is predicted to serve 104,730 persons (BPCDT-20080317AFX). Therefore, the herein proposed KBMY(DT) facility would serve 86.1%, pre-transition, and 86.3%, post-transition, of KBMY(DT)'s final post-transition facility current digital construction permit.

Pre-Transition Allocation Considerations

The proposed KBMY(DT) operation meets the FCC's interference standards to pertinent analog (NTSC) and DTV assignments using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid cell size as shown by the analysis provided in Figure 4. The proposed KBMY(DT) operation complies with the FCC's "de minimis" interference policy with respect to pertinent Class A TV assignments.

The proposed operation complies with the current Freeze on contour extension as it will not extend coverage beyond the currently authorized Grade B contour for KBMY (see Figure 3).

Post-Transition Allocation Considerations

The proposed KBMY(DT) operation meets the FCC's interference standards to pertinent DTV Appendix B allotments using the procedures outlined in the FCC's OET-69 Bulletin and a 1 kilometer grid cell size as shown by the analysis provided in Figure 5. The proposed operation complies with the current Freeze on contour extension as it will not extend coverage beyond the KBMY "Appendix B" facility. (see Figure 3).

Radiofrequency Electromagnetic Field Exposure

The proposed KBMY(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 KBMY(DT) antenna is

located 48.8 meters above ground level. The maximum effective radiated power is 1.7 kilowatts. A "worst-case" relative field value of 0.25 is assumed for the antenna's downward radiation. The calculated power density at a point 2 meters above ground level is 0.0016 mW/cm^2 . This is less than 5 percent of the Commission's recommended limit of 0.32 mW/cm^2 for channel 16 for an "uncontrolled" environment.

Access to the transmitting site is restricted and appropriately marked with warning signs. As this will be a multi-user site an agreement between the stations will control access. 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. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

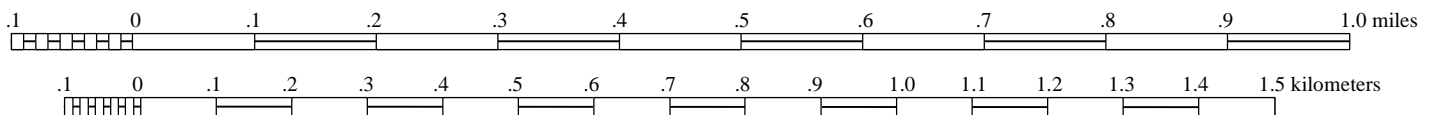
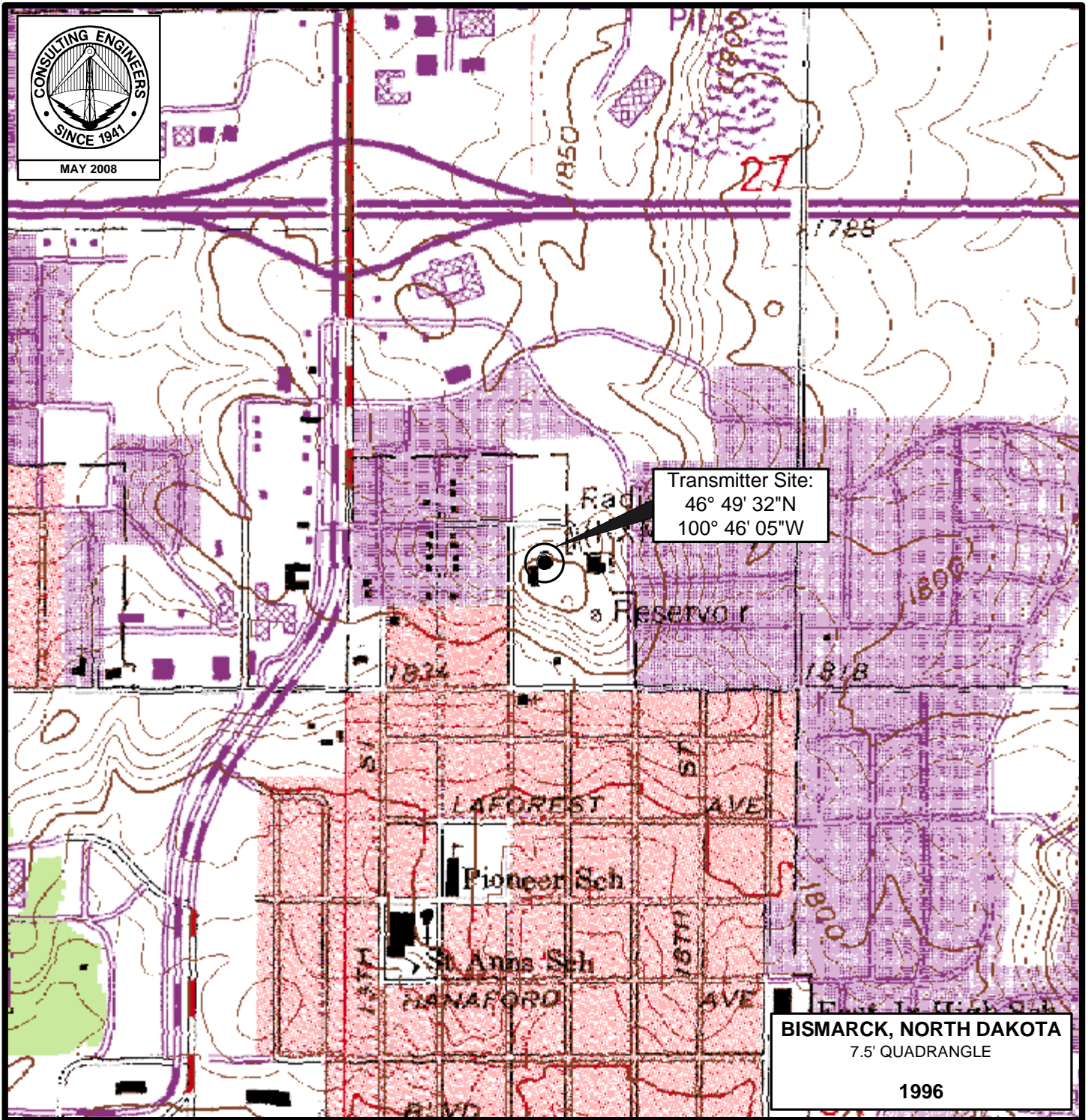
It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.

Charles Cooper

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 32437
941.329.6000

May 12, 2008

Figure 1



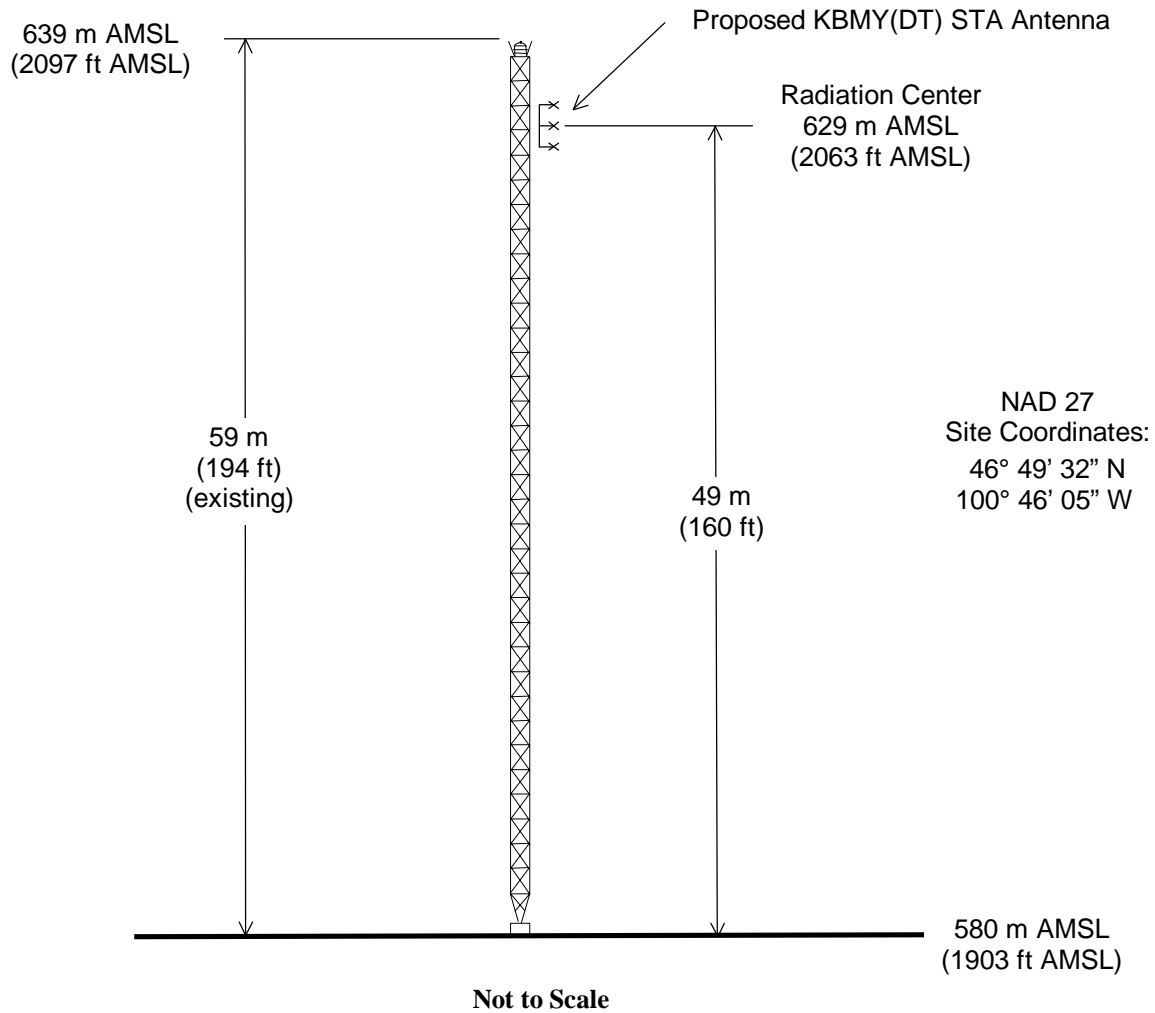
PROPOSED TRANSMITTER SITE

DTV STATION KBMY(DT)
BISMARCK, NORTH DAKOTA
CH 16 1.7 KW (MAX-DA) 94 M

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



ASRN: 1241339

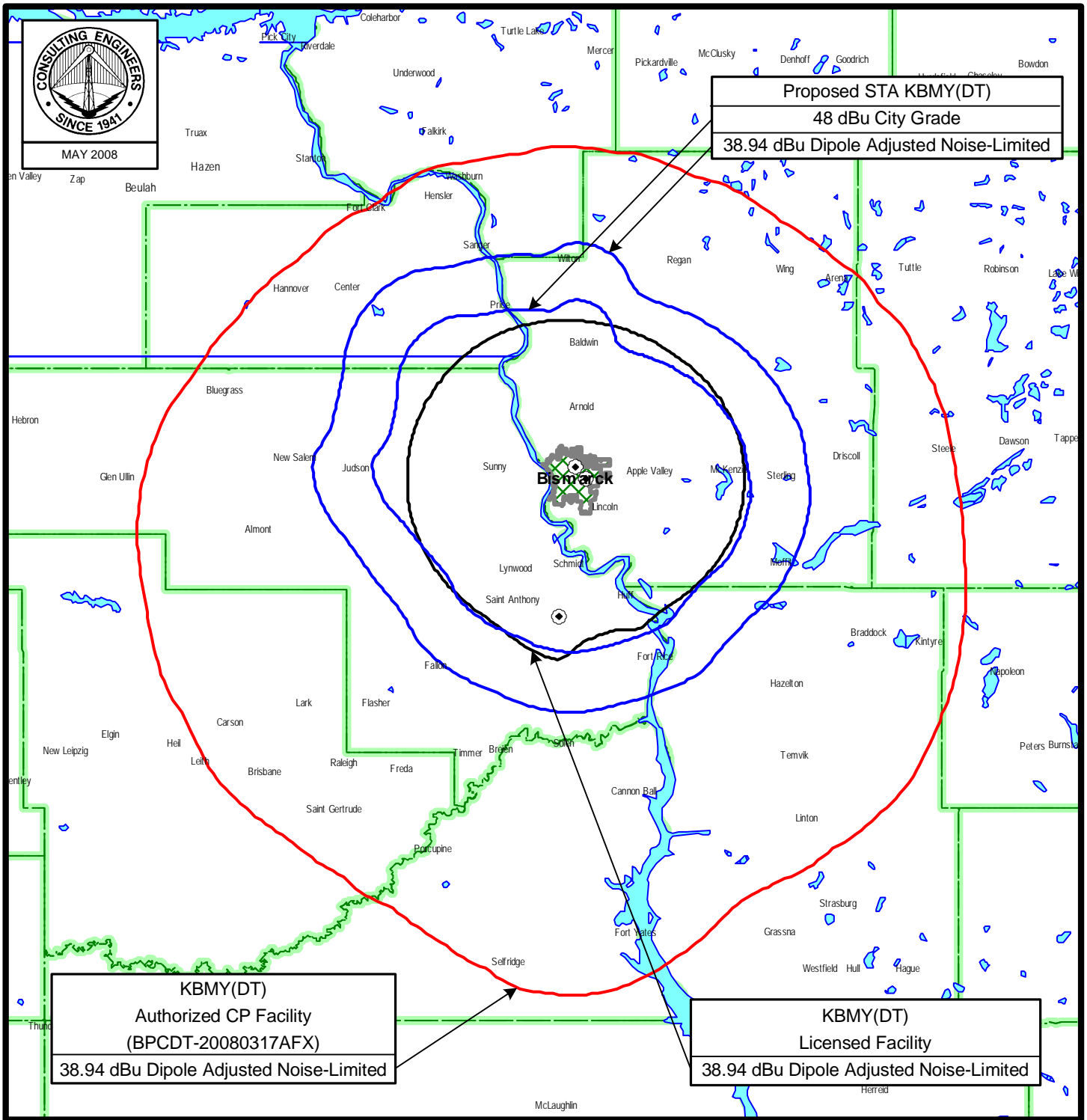


ANTENNA AND SUPPORTING STRUCTURE

DTV STATION KBMY(DT)
 BISMARCK, NORTH DAKOTA
 CH 16 1.7 KW (MAX-DA) 94 M

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

Figure 3



PREDICTED COVERAGE CONTOURS

STATION KBMY(DT)

BISMARCK, NORTH DAKOTA

CH 16 1.7 KW (MAX-DA) 94 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

Figure 4

Census data selected 2000

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 05-08-2008 Time: 13:09:26

Record Selected for Analysis

KBMY USERRECORD-01 BISMARCK ND US
Channel 16 ERP 1.7 kW HAAT 95. m RCAMSL 00629 m
Latitude 046-49-32 Longitude 0100-46-05
Status APP Zone 2 Border
Dir Antenna Make CDB Model 00000000073144 Beam tilt N Ref Azimuth 45.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	1.347	65.9	37.4
45.0	0.741	55.3	32.7
90.0	0.633	101.2	38.5
135.0	0.763	90.6	38.2
180.0	0.633	131.3	41.0
225.0	0.741	94.2	38.5
270.0	1.347	118.1	43.9
315.0	1.700	103.6	43.7

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Figure 4

Proposed facility is within the Canadian coordination distance
Distance to border = 241.7km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Call	Proposed Station City/State	ARN
16	KBMY	BISMARCK ND	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KMCY	MINOT ND	144.1	CP	BPCDT -19991028AEA
15	KMCY-DT	MINOT ND	144.2	PLN	DTVPLN -DTVP0178
15	KQSD-DT	LOWRY SD	182.5	PLN	DTVPLN -DTVP0191
16	KCGE-DT	CROOKSTON MN	338.3	LIC	BLEDT -20031024AAC
16	KDSD-TV	ABERDEEN SD	271.5	APP	BPET -20070108ABX
16	KDSD-TV	ABERDEEN SD	280.1	LIC	BLET -20070202AAK
16	KCLO-TV	RAPID CITY SD	362.2	LIC	BLCDT -20060207ABK
16	KCLO-DT	RAPID CITY SD	362.2	PLN	DTVPLN -DTVP0241
17	KBMY	BISMARCK ND	26.7	LIC	BLCT -19850412KH

Analysis of Interference to Affected Station 1

DTV Baseline Analysis

Channel	Call	City/State	Application Ref. No.
15	KMCY-DT	MINOT ND	DTVPLN -DTVP0178

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KMCY	MINOT ND	0.0	PLN	DTVPLN -NPLN0895
14	KXMD-DT	WILLISTON ND	186.2	PLN	DTVPLN -DTVP0141
15	KXGN-DT	GLENDAVE MT	270.9	PLN	DTVPLN -DTVP0176
15	KVRR	FARGO ND	417.3	PLN	DTVPLN -NPLN0928
15	KNRR-DT	PEMBINA ND	310.9	PLN	DTVPLN -DTVP0179
15	KQSD-DT	LOWRY SD	326.7	PLN	DTVPLN -DTVP0191
16	KBMY-DT	BISMARCK ND	168.8	PLN	DTVPLN -DTVP0230

Results for: 15A ND MINOT
HAAT 829.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	67265	12050.4
not affected by terrain losses	67265	12050.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	4.0
lost to ATV IX only	0	4.0

Figure 4

lost to all IX 0 4.0

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
14	KMCY	MINOT ND	DTVPLN -NPLN0895

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KJRR-DT	JAMESTOWN ND	232.9	PLN	DTVPLN -DTVP0140
14	KXMD-DT	WILLISTON ND	186.2	PLN	DTVPLN -DTVP0141
15	KMCY-DT	MINOT ND	0.0	PLN	DTVPLN -DTVP0178

Results for: 14N ND MINOT

	DTVPLN	NPLN0895	PLN
POPULATION	67265	12050.4	
AREA (sq km)	67264	12034.4	
within Noise Limited Contour	0	0.0	
not affected by terrain losses	1344	807.1	
lost to NTSC IX	1344	807.1	
lost to additional IX by ATV			
lost to all IX			

Analysis of current record

Channel	Call	City/State	Application Ref. No.
15	KMCY	MINOT ND	BPCDT -19991028AEA

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KMCY	MINOT ND	0.0	APP	BPCDT -20080501ACK
14	KMCY	MINOT ND	0.1	LIC	BLCT -19850625KF
14	KXMD-DT	WILLISTON ND	186.2	PLN	DTVPLN -DTVP0141
15	KXGN-DT	GLENDIVE MT	270.9	PLN	DTVPLN -DTVP0176
15	KVRR	FARGO ND	417.3	LIC	BLCT -20010914ABC
15	KGFE	GRAND FORKS ND	251.9	CP	BPEDT -20080304AAX
15	KNRR	PEMBINA ND	310.9	CP	BPCDT -19991101AKT
15	KNRR-DT	PEMBINA ND	310.9	PLN	DTVPLN -DTVP0179
15	KQSD-DT	LOWRY SD	326.6	PLN	DTVPLN -DTVP0191
16	KBYM-DT	BISMARCK ND	168.8	PLN	DTVPLN -DTVP0230
16	KBYM	BISMARCK ND	144.1	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
15	KMCY-DT	MINOT ND	DTVPLN -DTVP0178

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KMCY	MINOT ND	0.1	APP	BPCDT -20080501ACK
14	KMCY	MINOT ND	0.0	LIC	BLCT -19850625KF
14	KXMD-DT	WILLISTON ND	186.2	PLN	DTVPLN -DTVP0141

Figure 4

15	KXGN-DT	GLENDIVE MT	270.9	PLN	DTVPLN -DTVP0176
15	KVRR	FARGO ND	417.3	LIC	BLCT -20010914ABC
15	KGFE	GRAND FORKS ND	251.9	CP	BPEDT -20080304AAX
15	KNRR	PEMBINA ND	310.9	CP	BPCDT -19991101AKT
15	KNRR-DT	PEMBINA ND	310.9	PLN	DTVPLN -DTVP0179
15	KQSD-DT	LOWRY SD	326.7	PLN	DTVPLN -DTVP0191
16	KBYM-DT	BISMARCK ND	168.8	PLN	DTVPLN -DTVP0230
16	KBYM	BISMARCK ND	144.2	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 3

DTV Baseline Analysis

Channel	Call	City/State	Application Ref. No.
15	KQSD-DT	LOWRY SD	DTVPLN -DTVP0191

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KJRR-DT	JAMESTOWN ND	205.7	PLN	DTVPLN -DTVP0140
14	KPLO-DT	RELIANCE SD	148.8	PLN	DTVPLN -DTVP0148
15	KSMN-DT	WORTHINGTON MN	354.3	PLN	DTVPLN -DTVP0173
15	KXGN-DT	GLENDIVE MT	411.8	PLN	DTVPLN -DTVP0176
15	KVRR	FARGO ND	329.1	PLN	DTVPLN -NPLN0928
15	KMCY-DT	MINOT ND	326.7	PLN	DTVPLN -DTVP0178
15	KMNE-DT	BASSETT NE	329.4	PLN	DTVPLN -DTVP0180
15	KCLOTV	RAPID CITY SD	290.8	PLN	DTVPLN -NPLN0933
16	KBYM-DT	BISMARCK ND	158.9	PLN	DTVPLN -DTVP0230
16	KDSDTV	ABERDEEN SD	181.8	PLN	DTVPLN -NPLN0968

Results for: 15A SD LOWRY

	DTVPLN	DTVP0191	PLN
HAAT 317.0 m, ATV ERP 368.0 kW			
POPULATION	27857	27913.3	
AREA (sq km)	27808	27837.1	
within Noise Limited Contour	57	48.1	
not affected by terrain losses	0	4.0	
lost to NTSC IX	0	16.0	
lost to additional IX by ATV	0	52.2	
lost to ATV IX only			
lost to all IX			

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
11	KQSDTV	LOWRY SD	DTVPLN -NPLN0739

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
10	KTSDTV	PIERRE SD	148.9	PLN	DTVPLN -NPLN0681
11	KVLYTV	FARGO ND	309.2	PLN	DTVPLN -NPLN0725
11	KHSDTV	LEAD SD	321.6	PLN	DTVPLN -NPLN0738
11	KELOTV	SIOUX FALLS SD	336.4	PLN	DTVPLN -NPLN0740
12	KXMBTV	BISMARCK ND	159.1	PLN	DTVPLN -NPLN0780
12	KTTM	HURON SD	178.2	PLN	DTVPLN -NPLN0794

Figure 4

Results for: 11N SD LOWRY

	DTVPLN	NPLN0739	PLN
	POPULATION	AREA (sq km)	
within Noise Limited Contour	27872	27929.3	
not affected by terrain losses	26955	26938.5	
lost to NTSC IX	3812	5612.3	
lost to additional IX by ATV	0	0.0	
lost to all IX	3812	5612.3	

Analysis of current record

Channel	Call	City/State	Application Ref. No.
15	KQSD-DT	LOWRY SD	DTVPLN -DTVP0191

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
14	KJRR-DT	JAMESTOWN ND	205.7	PLN	DTVPLN -DTVP0140
14	KPLO-DT	RELIANCE SD	148.8	PLN	DTVPLN -DTVP0148
15	KSMN-DT	WORTHINGTON MN	354.3	PLN	DTVPLN -DTVP0173
15	KSMN	WORTHINGTON MN	354.3	LIC	BLEDT -20051219AGX
15	KXGN-DT	GLENDIVE MT	411.8	PLN	DTVPLN -DTVP0176
15	KVRR	FARGO ND	329.1	LIC	BLCT -20010914ABC
15	KGFE	GRAND FORKS ND	352.4	CP	BPEDT -20080304AAX
15	KMCY	MINOT ND	326.6	CP	BPCDT -19991028AEA
15	KMCY-DT	MINOT ND	326.7	PLN	DTVPLN -DTVP0178
15	KMNE-DT	BASSETT NE	329.4	PLN	DTVPLN -DTVP0180
15	KCLO-TV	RAPID CITY SD	290.8	LIC	BLCT -20030630ABA
16	KBMV-DT	BISMARCK ND	158.9	PLN	DTVPLN -DTVP0230
16	KDSD-TV	ABEERDEEN SD	171.7	APP	BPET -20070108ABX
16	KDSD-TV	ABERDEEN SD	182.0	LIC	BLET -20070202AAK
16	KBMV	BISMARCK ND	182.5	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	KCGE-DT	CROOKSTON MN	BLEDT -20031024AAC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KVRR	FARGO ND	147.5	LIC	BLCT -20010914ABC
15	KGFE	GRAND FORKS ND	104.7	CP	BPEDT -20080304AAX
15	KNRR	PEMBINA ND	127.7	CP	BPCDT -19991101AKT
15	KNRR-DT	PEMBINA ND	127.6	PLN	DTVPLN -DTVP0179
16	KTCI-DT	ST. PAUL MN	419.6	PLN	DTVPLN -DTVP0226
16	KBMV-DT	BISMARCK ND	352.4	PLN	DTVPLN -DTVP0230
16	KDSD-TV	ABEERDEEN SD	290.3	APP	BPET -20070108ABX
16	KDSD-TV	ABERDEEN SD	287.3	LIC	BLET -20070202AAK
16	KBMV	BISMARCK ND	338.3	APP	USERRECORD-01

Proposal causes no interference

Figure 4

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	KDSD-TV	ABEERDEEN SD	BPET -20070108ABX

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KVRR	FARGO ND	178.7	LIC	BLCT -20010914ABC
15	KQSD-DT	LOWRY SD	171.7	PLN	DTVPLN -DTVP0191
16	KCGE-DT	CROOKSTON MN	290.3	LIC	BLEDT -20031024AAC
16	KTCI-DT	ST. PAUL MN	369.5	PLN	DTVPLN -DTVP0226
16	KBMV	BISMARCK ND	268.7	LIC	BLCT -20070329AOT
16	KBMV-DT	BISMARCK ND	261.0	PLN	DTVPLN -DTVP0230
16	KBMV	BISMARCK ND	261.0	CP	BPCDT -20080317AFX
16	KXNE-TV	NORFOLK NE	364.9	LIC	BLEDT -20031016ACA
16	KXNE-DT	NORFOLK NE	364.9	PLN	DTVPLN -DTVP0231
17	KDSD-DT	ABERDEEN SD	10.2	PLN	DTVPLN -DTVP0281
18	KESD-DT	BROOKINGS SD	137.0	PLN	DTVPLN -DTVP0324
19	KJRE	ELLENDAL E ND	120.9	LIC	BLET -19920515KE
20	KJRE-DT	ELLENDAL E ND	120.9	PLN	DTVPLN -DTVP0409
20	KJRE	ELLENDAL E ND	120.9	LIC	BLEDT -20041109AAB
16	KBMV	BISMARCK ND	271.5	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 6

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
16	KDSDTV	ABERDEEN SD	DTVPLN -NPLN0968

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KVRR	FARGO ND	171.9	PLN	DTVPLN -NPLN0928
15	KQSD-DT	LOWRY SD	181.8	PLN	DTVPLN -DTVP0191
16	KTCI-DT	ST. PAUL MN	359.3	PLN	DTVPLN -DTVP0226
16	KBMV-DT	BISMARCK ND	270.0	PLN	DTVPLN -DTVP0230
16	KXNE-DT	NORFOLK NE	363.9	PLN	DTVPLN -DTVP0231
16	DNCE	CROOKSTON MN	265.8	PLN	DTVPLN -NPLN0976
17	KDSD-DT	ABERDEEN SD	0.0	PLN	DTVPLN -DTVP0281
18	KESD-DT	BROOKINGS SD	133.9	PLN	DTVPLN -DTVP0324
19	KJRE	ELLENDAL E ND	128.0	PLN	DTVPLN -NPLN1051
20	KJRE-DT	ELLENDAL E ND	128.0	PLN	DTVPLN -DTVP0409
31	KWCM-DT	APPLETON MN	136.0	PLN	DTVPLN -DTVP0827

Results for: 16N SD ABERDEEN

	DTVPLN	NPLN0968	PLN
	POPULATION	AREA (sq km)	

Figure 4

within Noise Limited Contour	74140	20494.5
not affected by terrain losses	71601	20238.8
lost to NTSC IX	7058	2820.5
lost to additional IX by ATV	0	0.0
lost to all IX	7058	2820.5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	KDSD-TV	ABERDEEN SD	BLET -20070202AAK

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KVRR	FARGO ND	171.8	LIC	BLCT -20010914ABC
15	KQSD-DT	LOWRY SD	182.0	PLN	DTVPLN -DTVP0191
16	KCGE-DT	CROOKSTON MN	287.3	LIC	BLEDT -20031024AAC
16	KTCI-DT	ST. PAUL MN	359.2	PLN	DTVPLN -DTVP0226
16	KBYM	BISMARCK ND	277.4	LIC	BLCDT -20070329AOT
16	KBYM-DT	BISMARCK ND	270.1	PLN	DTVPLN -DTVP0230
16	KBYM	BISMARCK ND	270.2	CP	BPCDT -20080317AFX
16	KXNE-TV	NORFOLK NE	363.8	LIC	BLEDT -20031016ACA
16	KXNE-DT	NORFOLK NE	363.8	PLN	DTVPLN -DTVP0231
17	KDSD-DT	ABERDEEN SD	0.2	PLN	DTVPLN -DTVP0281
18	KESD-DT	BROOKINGS SD	133.9	PLN	DTVPLN -DTVP0324
19	KJRE	ELLENDALÉ ND	128.1	LIC	BLET -19920515KE
20	KJRE-DT	ELLENDALÉ ND	128.1	PLN	DTVPLN -DTVP0409
20	KJRE	ELLENDALÉ ND	128.1	LIC	BLEDT -20041109AAB
31	KWCM-DT	APPLETON MN	135.8	PLN	DTVPLN -DTVP0827
16	KBYM	BISMARCK ND	280.1	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 7

DTV Baseline Analysis

Channel	Call	City/State	Application Ref. No.
16	KCLO-DT	RAPID CITY SD	DTVPLN -DTVP0241

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KCLOTV	RAPID CITY SD	0.0	PLN	DTVPLN -NPLN0933
16	KBYM-DT	BISMARCK ND	338.6	PLN	DTVPLN -DTVP0230
16	KPNE-DT	NORTH PLATTE NE	379.9	PLN	DTVPLN -DTVP0232
16	KFNE-DT	RIVERTON WY	403.1	PLN	DTVPLN -DTVP0249
17	KRNE-DT	MERRIMAN NE	198.7	PLN	DTVPLN -DTVP0269

Results for: 16A SD RAPID CITY

HAAT	155.0 m, ATV ERP	50.0 kW
within Noise Limited Contour	115321	10741.3
not affected by terrain losses	113257	10521.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0

Figure 4

lost to ATV IX only	0	0.0
lost to all IX	0	0.0

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
15	KCLOTV	RAPID CITY SD	DTVPLN -NPLN0933

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KXGN-DT	GLENDIVE MT	349.8	PLN	DTVPLN -DTVP0176
15	KMNE-DT	BASSETT NE	361.0	PLN	DTVPLN -DTVP0180
15	KQSD-DT	LOWRY SD	290.8	PLN	DTVPLN -DTVP0191
15	KGWC-DT	CASPER WY	291.3	PLN	DTVPLN -DTVP0203
16	KCLO-DT	RAPID CITY SD	0.0	PLN	DTVPLN -DTVP0241
18	KEVN-DT	RAPID CITY SD	0.4	PLN	DTVPLN -DTVP0325
22	KOTA-DT	RAPID CITY SD	0.2	PLN	DTVPLN -DTVP0504
29	KIVV-DT	LEAD SD	54.7	PLN	DTVPLN -DTVP0764
30	KHSD-DT	LEAD SD	54.7	PLN	DTVPLN -DTVP0801

Results for: 15N SD RAPID CITY

POPULATION	AREA (sq km)
115321	10741.3
within Noise Limited Contour	107070
not affected by terrain losses	10132.5
lost to NTSC IX	0
lost to additional IX by ATV	621
lost to all IX	621

Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	KCLO-TV	RAPID CITY SD	BLCDT -20060207ABK

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KCLO-TV	RAPID CITY SD	0.0	LIC	BLCT -20030630ABA
16	KBYM-DT	BISMARCK ND	338.6	PLN	DTVPLN -DTVP0230
16	KPNE-DT	NORTH PLATTE NE	379.9	PLN	DTVPLN -DTVP0232
16	KTUW	SCOTTSBLUFF NE	252.3	LIC	BLCDT -20061010AEP
16	KFNE-DT	RIVERTON WY	403.1	PLN	DTVPLN -DTVP0249
17	KRNE-DT	MERRIMAN NE	198.6	PLN	DTVPLN -DTVP0269
16	KBYM	BISMARCK ND	362.2	APP	USERRECORD-01

Proposal causes no interference

#####

Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	KCLO-DT	RAPID CITY SD	DTVPLN -DTVP0241

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
------	------	------------	----------	--------	----------------------

Figure 4

```

15 KCLO-TV RAPID CITY SD 0.0 LIC BLCT -20030630ABA
16 KBYM-DT BISMARCK ND 338.6 PLN DTVPLN -DTVP0230
16 KPNE-DT NORTH PLATTE NE 379.9 PLN DTVPLN -DTVP0232
16 KTUW SCOTTSBLUFF NE 252.3 LIC BLCDDT -20061010AEP
16 KPNE-DT RIVERTON WY 403.1 PLN DTVPLN -DTVP0249
17 KRNE-DT MERRIMAN NE 198.7 PLN DTVPLN -DTVP0269
16 KBYM BISMARCK ND 362.2 APP USERRECORD-01
Proposal causes no interference

```

```
#####
```

Analysis of Interference to Affected Station 9

```

NTSC Baseline Analysis
Channel Call City/State Application Ref. No.
17 KBYM BISMARCK ND DTVPLN -NPLN0994

```

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KBYM-DT	BISMARCK ND	0.0	PLN	DTVPLN -DTVP0230
17	KDSD-DT	ABERDEEN SD	270.0	PLN	DTVPLN -DTVP0281
18	KQCD-DT	DICKINSON ND	170.9	PLN	DTVPLN -DTVP0315
24	NEW	MINOT ND	168.6	PLN	DTVPLN -NPLN1217
31	KFYR-DT	BISMARCK ND	2.1	PLN	DTVPLN -DTVP0832

```

Results for: 17N ND BISMARCK DTVPLN NPLN0994 PLN
POPULATION AREA (sq km)
within Noise Limited Contour 100756 14003.4
not affected by terrain losses 100701 13863.3
lost to NTSC IX 0 0.0
lost to additional IX by ATV 4 8.0
lost to all IX 4 8.0

```

```

Analysis of current record
Channel Call City/State Application Ref. No.
17 KBYM BISMARCK ND BLCT -19850412KH

```

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KBYM	BISMARCK ND	24.9	LIC	BLCDDT -20070329AOT
16	KBYM-DT	BISMARCK ND	0.0	PLN	DTVPLN -DTVP0230
16	KBYM	BISMARCK ND	0.1	CP	BPCDDT -20080317AFX
17	KDSD-DT	ABERDEEN SD	270.0	PLN	DTVPLN -DTVP0281
18	KQCD-DT	DICKINSON ND	170.9	PLN	DTVPLN -DTVP0315
18	KJRR-DR	JAMESTOWN ND	159.3	LIC	BPRM -20000328ABT
24	KXND	MINOT ND	169.8	LIC	BLCT -19991210AAN
31	KFYR-DT	BISMARCK ND	2.1	PLN	DTVPLN -DTVP0832
16	KBYM	BISMARCK ND	26.7	APP	USERRECORD-01

Proposal causes no interference

```
#####
```

Figure 4

Analysis of Interference to Affected Station 10

```

DTV Baseline Analysis
Channel Call City/State Application Ref. No.
16 KBYM-DT BISMARCK ND DTVPLN -DTVP0230

```

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KMCY-DT	MINOT ND	168.8	PLN	DTVPLN -DTVP0178
15	KQSD-DT	LOWRY SD	158.9	PLN	DTVPLN -DTVP0191
16	KDSDTV	ABERDEEN SD	270.0	PLN	DTVPLN -NPLN0968
16	KCLO-DT	RAPID CITY SD	338.6	PLN	DTVPLN -DTVP0241
16	DNCE	CROOKSTON MN	343.3	PLN	DTVPLN -NPLN0976
17	KBYM	BISMARCK ND	0.0	PLN	DTVPLN -NPLN0994

```

Results for: 16A ND BISMARCK DTVPLN DTVP0230 PLN
HAAT 290.0 m, ATV ERP 50.0 kW

```

```

POPULATION AREA (sq km)
within Noise Limited Contour 100756 14003.4
not affected by terrain losses 100756 13995.4
lost to NTSC IX 0 0.0
lost to additional IX by ATV 0 0.0
lost to ATV IX only 0 0.0
lost to all IX 0 0.0

```

```

NTSC Baseline Analysis
Channel Call City/State Application Ref. No.
17 KBYM BISMARCK ND DTVPLN -NPLN0994

```

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KBYM-DT	BISMARCK ND	0.0	PLN	DTVPLN -DTVP0230
17	KDSD-DT	ABERDEEN SD	270.0	PLN	DTVPLN -DTVP0281
18	KQCD-DT	DICKINSON ND	170.9	PLN	DTVPLN -DTVP0315
24	NEW	MINOT ND	168.6	PLN	DTVPLN -NPLN1217
31	KFYR-DT	BISMARCK ND	2.1	PLN	DTVPLN -DTVP0832

```

Results for: 17N ND BISMARCK DTVPLN NPLN0994 PLN
POPULATION AREA (sq km)
within Noise Limited Contour 100756 14003.4
not affected by terrain losses 100701 13863.3
lost to NTSC IX 0 0.0
lost to additional IX by ATV 4 8.0
lost to all IX 4 8.0

```

```

Analysis of current record
Channel Call City/State Application Ref. No.
16 KBYM BISMARCK ND USERRECORD-01

```

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KMCY	MINOT ND	144.1	CP	BPCDDT -19991028AEA
15	KMCY-DT	MINOT ND	144.2	PLN	DTVPLN -DTVP0178

Figure 4

15	KQSD-DT	LOWRY SD	182.5	PLN	DTVPLN	-DTVP0191
16	KCGE-DT	CROOKSTON MN	338.3	LIC	BLEDT	-20031024AAC
16	KDSD-TV	ABEERDEEN SD	271.5	APP	BPET	-20070108ABX
16	KDSD-TV	ABERDEEN SD	280.1	LIC	BLET	-20070202AAK
16	KCLO-TV	RAPID CITY SD	362.2	LIC	BLCDT	-20060207ABK
16	KCLO-DT	RAPID CITY SD	362.2	PLN	DTVPLN	-DTVP0241
17	KBYM	BISMARCK ND	26.7	LIC	BLCT	-19850412KH

Total scenarios = 2

Result key: 1
Scenario 1 Affected station 10
Before Analysis

Results for: 16A ND BISMARCK USERRECORD01 APP
HAAT 95.0 m, ATV ERP 1.7 kW
POPULATION AREA (sq km)
within Noise Limited Contour 90454 5547.3
not affected by terrain losses 90357 5301.5
lost to NTSC IX 176 265.9
lost to additional IX by ATV 0 0.0
lost to ATV IX only 0 0.0
lost to all IX 176 265.9

Potential Interfering Stations Included in above Scenario 1

16N SD ABERDEEN BLET 20070202AAK LIC
17N ND BISMARCK BLCT 19850412KH LIC

Result key: 2
Scenario 2 Affected station 10
Before Analysis

Results for: 16A ND BISMARCK USERRECORD01 APP
HAAT 95.0 m, ATV ERP 1.7 kW
POPULATION AREA (sq km)
within Noise Limited Contour 90454 5547.3
not affected by terrain losses 90357 5301.5
lost to NTSC IX 176 278.0
lost to additional IX by ATV 0 0.0
lost to ATV IX only 0 0.0
lost to all IX 176 278.0

Potential Interfering Stations Included in above Scenario 2

16N SD ABEERDEEN BPET 20070108ABX APP
17N ND BISMARCK BLCT 19850412KH LIC

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

Figure 5

Census data selected 2000

Post Transition Data Base Selected
/export/home/cdbs/tvdb.sff_B
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 05-08-2008 Time: 13:25:32

Record Selected for Analysis

KBYM USERRECORD-01 BISMARCK ND US
Channel 16 ERP 1.7 kW HAAT 95. m RCAMSL 00629 m
Latitude 046-49-32 Longitude 0100-46-05
Status APP Zone 2 Border
Dir Antenna Make CDB Model 00000000073144 Beam tilt N Ref Azimuth 45.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	1.347	65.9	37.4
45.0	0.741	55.3	32.7
90.0	0.633	101.2	38.5
135.0	0.763	90.6	38.2
180.0	0.633	131.3	41.0
225.0	0.741	94.2	38.5
270.0	1.347	118.1	43.9
315.0	1.700	103.6	43.7

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Figure 5

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance
Distance to border = 241.7km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
16	KBYM	BISMARCK ND	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KCGE-DT	CROOKSTON MN	338.3	LIC	BDTV -0823
16	KCLO-TV	RAPID CITY SD	362.2	LIC	BDTV -1432

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	KCGE-DT	CROOKSTON MN	BDTV -0823

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KGFE	GRAND FORKS ND	104.7	LIC	BDTV -1006
16	KBYM	BISMARCK ND	338.3	APP	USERRECORD-01

Proposal causes no interference

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
16	KCLO-TV	RAPID CITY SD	BDTV -1432

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
16	KBYM	BISMARCK ND	362.2	APP	USERRECORD-01

Proposal causes no interference

Figure 5

```
Analysis of Interference to Affected Station  3

Analysis of current record
Channel      Call      City/State      Application Ref. No.
  16      KBYM      BISMARCK ND      USERRECORD-01

Stations Potentially Affecting This Station

Chan  Call      City/State      Dist(km) Status  Application Ref. No.
  16  KCGE-DT  CROOKSTON MN      338.3  LIC    BDTV      -0823
  16  KCLO-TV  RAPID CITY SD      362.2  LIC    BDTV      -1432

Total scenarios =  1

Result key:      1
Scenario      1  Affected station      3
Before Analysis

Results for: 16A ND BISMARCK      USERRECORD01      APP
HAAT  95.0 m, ATV ERP  1.7 kW
      POPULATION      AREA (sq km)
within Noise Limited Contour      90454      5547.3
not affected by terrain losses      90357      5301.5
lost to NTSC IX      0      0.0
lost to additional IX by ATV      0      0.0
lost to ATV IX only      0      0.0
lost to all IX      0      0.0

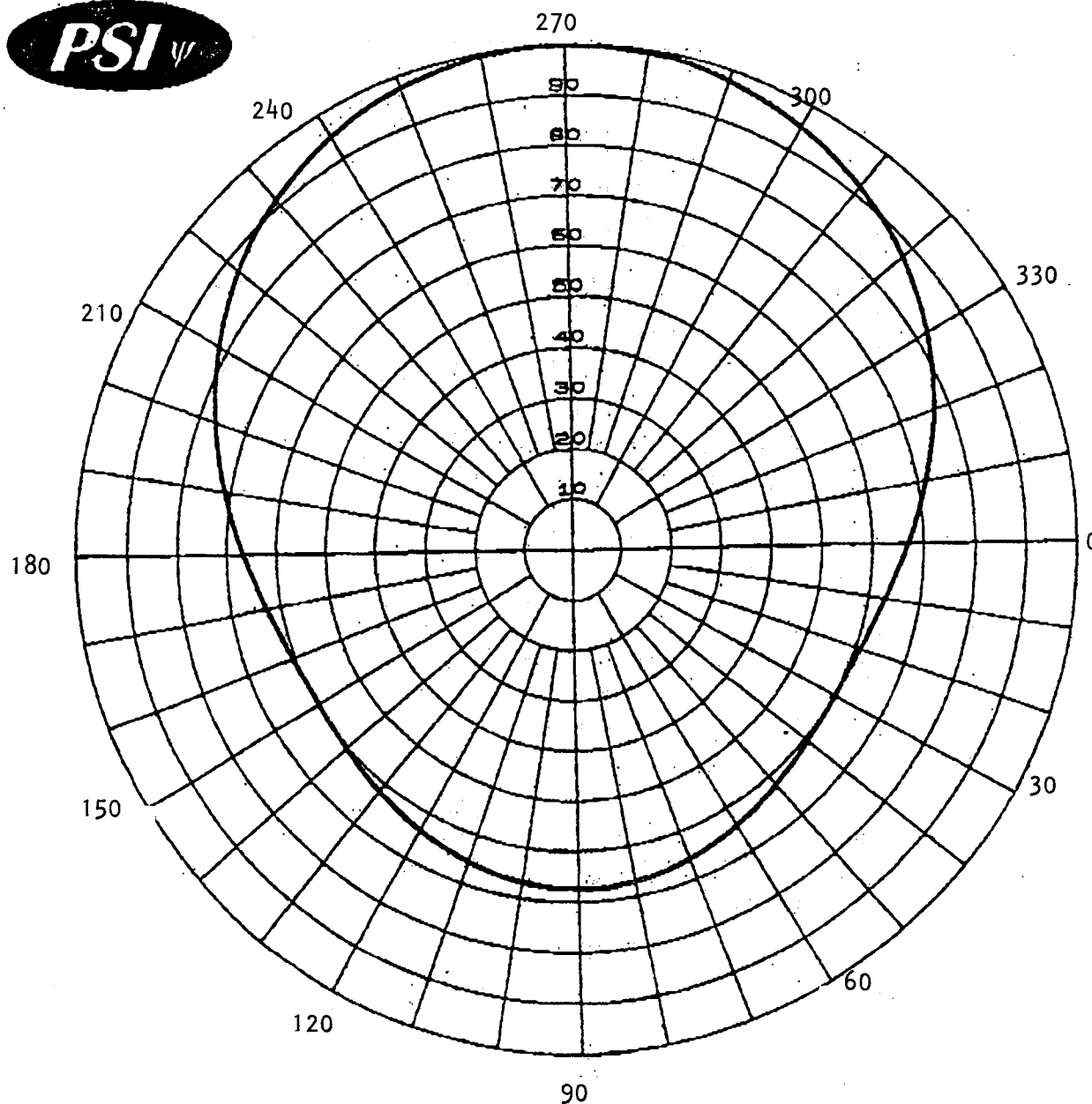
Potential Interfering Stations Included in above Scenario  1

#####

FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED
```

APPENDIX

TRANSMITTING ANTENNA VERTICAL AND HORIZONTAL PLANE PATTERN



Calculated Relative Field
Azimuth Plane Pattern
Low Power UHF Slot
Antenna Type: PSILP
Pattern Type:
Directivity: 1.70 (2.314 dB)
Date: 7/1/97
Rev. 0

PROPAGATION SYSTEMS, INC.
PO BOX 113
EBENSBURG, PA. 15931

KBMV-DT
low power

Figure 3
Sheet 2 of 2

