

## K66AR on Channel 34

REFERENCE  
 42 00 21 N LPTV Pwr = 0.061 kW, HAMSL COR= 389 M  
 96 15 25 W  
 ..... Channel 34 , 590 MHz .....

DISPLAY DATES  
 DATA 09-16-03  
 SEARCH 09-16-03

Call N. Lat.	Channel W. Lng.	Location	Dist Power	Azi	HAAT	FCC	Margin
KUSDTV*ALD 43 03 00	34 96 47 12	VERMILLION D	SD 123.89 857.595 kW	339.7	237 M	> 144.59	-11.90
BLET182							
KUSD-D*CP 43 03 01	34 96 47 01	Vermillion TY	SD 123.83 1000.000 kW	339.8	211 M	> 141.50	-10.35
South Dakota Board Of Dire BPEDT20000217AAF							
KXNETV*LI 42 14 15	19+ 97 16 41	Norfolk DVY	NE 88.27 1116.881 kW	287.3	368 M	> 082.30	12.06
Nebraska Educational Telec BLET19921106KE							
KXNETV*AP 42 14 15	19+ 97 16 41	Norfolk DVY	NE 88.27 1105.713 kW	287.3	345 M	> 080.12	14.11
Nebraska Educational Telec BPET20030822AGH							
KHIN-D*CP 41 20 40	35 95 15 21	Red Oak DTY	IA 111.11 106.219 kW	131.2	479 M	> 107.90	16.97
Iowa Public Broadcasting B BPEDT20000327ABE							
KBIN-D CP 41 15 15	33 95 50 08	Council Bluffs TY	IA 90.57 200.000 kW	157.1	98 M	> 067.11	23.46
Iowa Public Broadcasting B BPEDT19980826KE							
KBINTV ALD 41 15 15	33 95 50 07	COUNCIL BLUFFS D	IA 90.58 50.000 kW	157.1	98 M	> 061.04	29.54
BLET860923KL							
KHIN* ALD 41 20 40	35 95 15 21	RED OAK D	IA 111.11 6.613 kW	131.2	479 M	> 088.36	35.89
BLET860923KP							
AL9412 AL 42 01 36	34+ 93 36 44	Ames AN	IA 219.08 5000.000 kW	88.5	600 M	> 177.33	41.75
Ames Family Television							
AL832 AL 43 24 06	33Z 95 44 08	Sibley AN	IA 160.83 5000.000 kW	15.2	600 M	> 109.19	51.64
K31ED AP 41 15 17	19Z 95 50 09	Omaha DXN	NE 90.50 60.000 kW	157.1	103 M	> 026.26	64.24
Ms Communications, Llc BPTTL20020503ABI							

Call N.	Lat.	Channel W.	Location Lng.	Dist Power	Azi	FCC	Margin
					HAAT		
K33EM 41	LI 23 34	33+ 96 54 37	Columbus, Etc. XN	NE 2.670 kW	87.14 218.7	> 017.56	69.58
			David C. Brodahl		225 M BLTTTL19950807JD		
K35FM 42	CPM 01 46	35N 97 21 24	Norfolk DXN	NE 10.000 kW	91.13 272.0	> 021.20	69.93
			Waitt Broadcasting, Inc.		165 M BMAPTT20000825AKA		
AP179 41	AP 59 49	34+ 93 44 23	Ames VN	IA 2190.000 kW	208.56 89.4	> 134.05	74.51
			Community Television Educa		151 M BPET19960930KE		
KSNBTV 40	ALD 05 13	34 97 55 13	SUPERIOR D	NE 1000.000 kW	254.89 213.7	> 168.41	86.48
					344 M BLCT1674		
KSNB-D 40	CP 05 15	34 97 55 12	Superior DTY	NE 1000.000 kW	254.83 213.7	> 165.57	89.26
			Colins Broadcasting Compan		315 M BPCDT19991004ABO		
AP569 41	AP 58 49	34+ 93 44 23	Ames VN	IA 160.040 kW	208.60 89.9	> 117.53	91.07
			Global Education Developme		143 M BPET19960701KE		
960712 41	CP 58 49	34+ 93 44 23	Ames VY	IA 87.100 kW	208.60 89.9	> 114.43	94.17
			Family Educational Broadca		150 M BPET19960712KL		
AL839 40	AL 06 30	33+ 96 09 06	Pawnee City AN	NE 5000.000 kW	210.91 177.6	> 109.19	101.72
					600 M		
AP754 42	AP 01 30	34Z 93 34 33	Ames DVN	IA 46.800 kW	222.09 88.6	> 099.00	123.09
			Ames Family Television		55 M BPET19960222KF		
KSMN 43	LI 53 52	20Z 95 56 50	Worthington DVY	MN 2400.000 kW	211.69 6.7	> 080.91	130.78
			West Central Minnesota Edu		332 M BLET19970224KH		
K33AB 43	LI 24 10	33N 95 40 15	Sibley, Etc. DXN	IA 18.600 kW	162.44 16.9	> 025.86	136.58
			Iowa Public Broadcasting B		190 M BLTT19790731IA		
K33GX 42	LI 48 26	33+ 97 58 46	Springfield DXN	SD 13.700 kW	167.43 302.8	> 022.62	144.81
			Red River Broadcast Co., L		162 M BLTTTL20020515AAF		
K34DR 43	LI 43 54	34N 97 05 14	Humboldt XN	SD 1.030 kW	203.37 340.9	> 054.72	148.65
			Independent Communications		156 M BLTT19931022JQ		

Call N. Lat.	Channel W. Lng.	Location	Dist Power	Azi	HAAT	FCC	Margin
KSNB-D ST 40 05 15	34 97 55 12	Superior DTN Colins Broadcasting Compan	NE 254.83 0.534 kW BDSTA20020307ACK	213.7	78 M	> 101.95	152.88
K33AC LI 40 11 01	33N 96 21 03	Pawnee City XN Nebraska Educational Tv Co	NE 202.52 17.300 kW BLTT19790523IA	182.3	593 M	> 039.15	163.37
WDAFTV ALD 39 04 20	34 94 35 45	KANSAS CITY D	MO 354.86 1000.000 kW BLCT2355	156.2	344 M	> 168.41	186.45

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 \* Actual radials antenna height and directional patterns used (if any)

# TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 09-09-2003 Time: 13:37:56

Record Selected for Analysis

K66AR USERRECORD-01 DECATUR NE US  
 Channel 34 ERP 0.061 kW HAAT 30 m RCAMSL 00389 m  
 Latitude 042-00-21 Longitude 0096-15-25  
 Status APP Zone 1 Border Offset  
 Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 77.  
 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

Not full service station

Facility meets maximum power limit

Azimuth (Deg)	ERP (kW)	HAAT (m)	74.0 dBu F(50,50) (km)
0.0	0.031	69.3	2.9
45.0	0.027	68.5	2.8
90.0	0.037	70.4	3.0
135.0	0.043	72.5	3.2
180.0	0.016	33.0	1.7
225.0	0.000	33.0	0.5
270.0	0.000	33.0	0.5
315.0	0.000	33.0	1.0

Contour Overlap Evaluation from LPTV Station to Full Service TV & DTV

Contour overlap to station

KUSD-TV 34 VERMILLION SD BPEDT 20000217AAF

D/U ratio at contour 20.76 dB

Offset Proposed Offset Protected Required D/U ratio: 21.0

Radial 131.0 degrees

Bearing to point on contour 18.0 degrees

D/U ratio at contour 20.38 dB

Radial 132.0 degrees

Bearing to point on contour 17.5 degrees

D/U ratio at contour 19.97 dB

Radial 133.0 degrees

Bearing to point on contour 16.9 degrees

D/U ratio at contour 19.58 dB

Radial 134.0 degrees  
Bearing to point on contour 16.3 degrees  
D/U ratio at contour 19.17 dB  
Radial 135.0 degrees  
Bearing to point on contour 15.6 degrees  
D/U ratio at contour 18.75 dB  
Radial 136.0 degrees  
Bearing to point on contour 14.9 degrees  
D/U ratio at contour 18.31 dB  
Radial 137.0 degrees  
Bearing to point on contour 14.1 degrees  
D/U ratio at contour 17.87 dB  
Radial 138.0 degrees  
Bearing to point on contour 13.3 degrees  
D/U ratio at contour 17.42 dB  
Radial 139.0 degrees  
Bearing to point on contour 12.4 degrees  
D/U ratio at contour 16.98 dB  
Radial 140.0 degrees  
Bearing to point on contour 11.5 degrees  
D/U ratio at contour 16.55 dB  
Radial 141.0 degrees  
Bearing to point on contour 10.5 degrees  
D/U ratio at contour 16.12 dB  
Radial 142.0 degrees  
Bearing to point on contour 9.4 degrees  
D/U ratio at contour 15.70 dB  
Radial 143.0 degrees  
Bearing to point on contour 8.3 degrees  
D/U ratio at contour 15.31 dB  
Radial 144.0 degrees  
Bearing to point on contour 7.1 degrees  
D/U ratio at contour 14.96 dB  
Radial 145.0 degrees  
Bearing to point on contour 5.8 degrees  
D/U ratio at contour 14.63 dB  
Radial 146.0 degrees  
Bearing to point on contour 4.4 degrees  
D/U ratio at contour 14.33 dB  
Radial 147.0 degrees  
Bearing to point on contour 3.0 degrees  
D/U ratio at contour 14.04 dB  
Radial 148.0 degrees  
Bearing to point on contour 1.5 degrees  
D/U ratio at contour 13.80 dB  
Radial 149.0 degrees  
Bearing to point on contour 359.9 degrees  
D/U ratio at contour 13.73 dB  
Radial 150.0 degrees  
Bearing to point on contour 358.2 degrees  
D/U ratio at contour 13.70 dB  
Radial 151.0 degrees  
Bearing to point on contour 356.5 degrees  
D/U ratio at contour 13.75 dB  
Radial 152.0 degrees  
Bearing to point on contour 354.7 degrees  
D/U ratio at contour 13.88 dB

Radial 153.0 degrees  
Bearing to point on contour 352.9 degrees  
D/U ratio at contour 14.04 dB  
Radial 154.0 degrees  
Bearing to point on contour 350.9 degrees  
D/U ratio at contour 14.29 dB  
Radial 155.0 degrees  
Bearing to point on contour 349.0 degrees  
D/U ratio at contour 14.58 dB  
Radial 156.0 degrees  
Bearing to point on contour 347.0 degrees  
D/U ratio at contour 15.03 dB  
Radial 157.0 degrees  
Bearing to point on contour 344.9 degrees  
D/U ratio at contour 15.56 dB  
Radial 158.0 degrees  
Bearing to point on contour 342.8 degrees  
D/U ratio at contour 16.15 dB  
Radial 159.0 degrees  
Bearing to point on contour 340.7 degrees  
D/U ratio at contour 16.83 dB  
Radial 160.0 degrees  
Bearing to point on contour 338.6 degrees  
D/U ratio at contour 17.59 dB  
Radial 161.0 degrees  
Bearing to point on contour 336.5 degrees  
D/U ratio at contour 18.45 dB  
Radial 162.0 degrees  
Bearing to point on contour 334.4 degrees  
D/U ratio at contour 19.38 dB  
Radial 163.0 degrees  
Bearing to point on contour 332.4 degrees  
D/U ratio at contour 20.40 dB  
Radial 164.0 degrees  
Bearing to point on contour 330.3 degrees

Contour Overlap Evaluation from LPTV to Full Service TV & DTV Complete

Contour Overlap Evaluation from LPTV Station to LPTV Stations

No Spacing violations or contour overlap from LPTV station

Contour Overlap Evaluation from LPTV to LPTV Stations Complete

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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#### Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
34	K66AR	DECATUR NE	USERRECORD01

#### Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
34	KUSD-TV	VERMILLION SD	123.8	CP	BPEDT -20000217AAF

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#### Analysis of Interference to Affected Station 1

#### DTV Baseline Analysis

Channel	Call	City/State	Application Ref. No.
34	KUSD-DT	VERMILLION SD	DTVPLN -DTVP0955

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
33	KBIN-DT	COUNCIL BLUFFS IA	214.4	PLN	DTVPLN -DTVP0900
34	NEW	AMES IA	286.6	PLN	DTVPLN -NPLN1473
34	KTCA-DT	ST. PAUL MN	367.9	PLN	DTVPLN -DTVP0941
34	KSNB-DT	SUPERIOR NE	342.6	PLN	DTVPLN -DTVP0945
35	KHIN-DT	RED OAK IA	227.6	PLN	DTVPLN -DTVP0973

Results for: 34A SD VERMILLION DTVPLN DTVP0955 PLN  
HAAT 232.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	442708	29581.0
not affected by terrain losses	441001	29331.1
lost to NTSC IX	5	4.0
lost to additional IX by ATV	254	108.8
lost to ATV IX only	254	108.8
lost to all IX	259	112.9

#### NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
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02 KUSDTV VERMILLION SD DTVPLN -NPLN0195

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
02	KGAN	CEDAR RAPIDS IA	409.1	PLN	DTVPLN	-NPLN0163
02	KTCATV	ST. PAUL MN	367.9	PLN	DTVPLN	-NPLN0173
02	KQTV	ST. JOSEPH MO	400.5	PLN	DTVPLN	-NPLN0174
02	KNOPTV	NORTH PLATTE NE	384.6	PLN	DTVPLN	-NPLN0182
03	KMTV	OMAHA NE	203.6	PLN	DTVPLN	-NPLN0244
03	KDLOTV	FLORENCE SD	222.4	PLN	DTVPLN	-NPLN0256

Results for:	2N SD VERMILLION	DTVPLN	NPLN0195	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour		442708	29581.0	
not affected by terrain losses		436190	29234.3	
lost to NTSC IX		1818	548.2	
lost to additional IX by ATV		0	0.0	
lost to all IX		1818	548.2	

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
34	KUSD-TV	VERMILLION SD	BPEDT	-20000217AAF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
33	KBIN-TV	COUNCIL BLUFFS IA	214.4	CP	BPEDT	-19980826KE
33	KBIN-DT	COUNCIL BLUFFS IA	214.4	PLN	DTVPLN	-DTVP0900
34	960712KL	AMES IA	276.3	CP	BPET	-19960712KL
34	KTCA-TV	SAINT PAUL MN	367.7	CP	BPEDT	-20000331AAX
34	KTCA-DT	ST. PAUL MN	367.7	PLN	DTVPLN	-DTVP0941
34	KSNB-DT	SUPERIOR NE	342.7	PLN	DTVPLN	-DTVP0945
35	KHIN	RED OAK IA	227.5	CP	BPEDT	-20000327ABE
35	KHIN-DT	RED OAK IA	227.5	PLN	DTVPLN	-DTVP0973
34	K66AR	DECATUR NE	123.8	APP	USERRECORD-01	

Total scenarios = 2

Result key: 1  
Scenario 1 Affected station 1  
Before Analysis

Results for:	34A SD VERMILLION	BPEDT	20000217AAF	CP
HAAT	204.0 m, ATV ERP 1000.0 kW			
		POPULATION	AREA (sq km)	
within Noise Limited Contour		391970	22422.7	
not affected by terrain losses		388025	22350.1	
lost to NTSC IX		0	0.0	
lost to additional IX by ATV		71	20.2	
lost to ATV IX only		71	20.2	
lost to all IX		71	20.2	

Potential Interfering Stations Included in above Scenario 1

34A NE SUPERIOR	DTVPLN	DTVP0945	PLN
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After Analysis

Results for: 34A SD VERMILLION                      BPEDT              20000217AAF    CP  
HAAT 204.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	391970	22422.7
not affected by terrain losses	388025	22350.1
lost to NTSC IX	41	16.1
lost to additional IX by ATV	39	12.1
lost to ATV IX only	71	20.2
lost to all IX	80	28.2

Potential Interfering Stations Included in above Scenario              1

34A NE SUPERIOR	DTVPLN	DTVP0945	PLN
34N NE DECATUR	USERRECORD01		APP

Result key:              2  
Scenario              2    Affected station              1  
Before Analysis

Results for: 34A SD VERMILLION                      BPEDT              20000217AAF    CP  
HAAT 204.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	391970	22422.7
not affected by terrain losses	388025	22350.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	71	20.2
lost to ATV IX only	71	20.2
lost to all IX	71	20.2

Potential Interfering Stations Included in above Scenario              2

34A NE SUPERIOR	DTVPLN	DTVP0945	PLN
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After Analysis

Results for: 34A SD VERMILLION                      BPEDT              20000217AAF    CP  
HAAT 204.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	391970	22422.7
not affected by terrain losses	388025	22350.1
lost to NTSC IX	41	16.1
lost to additional IX by ATV	39	12.1
lost to ATV IX only	71	20.2
lost to all IX	80	28.2

Potential Interfering Stations Included in above Scenario              2

34A NE SUPERIOR	DTVPLN	DTVP0945	PLN
34N NE DECATUR	USERRECORD01		APP

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Analysis of current record

Channel	Call	City/State	Application Ref. No.
34	K66AR	DECATUR NE	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
27	KSIN-TV	SIOUX CITY IA	56.7	LIC	BLET -19860923KO
30	KCAU-TV	SIOUX CITY IA	64.6	CP MOD	BMPCDT -20000428ABE
30	KCAU-DT	SIOUX CITY IA	64.6	PLN	DTVPLN -DTVP0784
33	KBIN-TV	COUNCIL BLUFFS IA	90.6	CP	BPEDT -19980826KE
33	KBIN-DT	COUNCIL BLUFFS IA	90.6	PLN	DTVPLN -DTVP0900
34	960712KL	AMES IA	208.0	CP	BPET -19960712KL
34	WDAF-DT	KANSAS CITY MO	355.0	PLN	DTVPLN -DTVP0942
34	KSNB-DT	SUPERIOR NE	254.8	PLN	DTVPLN -DTVP0945
34	KUSD-DT	VERMILLION SD	123.9	PLN	DTVPLN -DTVP0955
35	KHIN	RED OAK IA	111.0	CP	BPEDT -20000327ABE
35	KHIN-DT	RED OAK IA	111.0	PLN	DTVPLN -DTVP0973
38	KXVO	OMAHA NE	104.0	CP	BPCDT -19991029ADQ
38	KXVO-DT	OMAHA NE	104.0	PLN	DTVPLN -DTVP1057
41	KTIV	SIOUX CITY IA	64.6	CP	BPCDT -19991101AIH
41	KTIV-DT	SIOUX CITY IA	64.6	PLN	DTVPLN -DTVP1158
49	KPTH	SIOUX CITY IA	64.6	CP	BPCDT -19991101AGW
49	NEW -DT	SIOUX CITY IA	64.7	PLN	DTVPLN -DTVP1418

Total scenarios = 1

Result key: 3  
 Scenario 1 Affected station 2  
 Before Analysis

Results for: 34N NE DECATUR	USERRECORD01	APP
	POPULATION	AREA (sq km)
within Noise Limited Contour	652	16.0
not affected by terrain losses	652	16.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	5	8.0
lost to all IX	5	8.0

Potential Interfering Stations Included in above Scenario 1

34A SD VERMILLION DTVPLN DTVP0955 PLN

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED