

MINOR CHANGE APPLICATION
RAPID BROADCASTING COMPANY
KAUN-DT TELEVISION STATION
CH 51 - 200.0 KW
SIOUX FALLS, SOUTH DAKOTA
June 2001

EXHIBIT A

Allocation and Interference Evaluation
KAUN-DT Maximized Facility

The Commission allotted Channel 51 to Sioux Falls, South Dakota, as a paired DTV channel for use with KAUN, Channel 36, with a nominal effective radiated power of 93.0 kilowatts directional, and an antenna height above average terrain of 230 meters. This application herein proposes to increase the maximum effective radiated power of KAUN-DT to 200.0 kilowatts with an antenna height above average terrain of 209 meters.¹ The proposed power and height of the facility has been re-evaluated to verify it is allowable under the Commission's de minimus interference standards, with respect to existing NTSC and DTV facilities in and around the KAUN-DT operational area.

In evaluating the interference impact of this maximized proposal, we have reviewed the delivered and received interference utilizing the V-Soft Communications Probe II propagation model.² A list of those facilities evaluated for this maximization request is attached as Exhibit A1 and is based on the culling distance listed in the Communications Public Notice, dated

-
- 1) The reduction in HAAT is based on available tower space on the existing KAUN antenna structure.
 - 2) A study was conducted using the guidelines of OET-69. The Probe II program was set to model terrain in 1.0 kilometer steps. It implements the same computer variables as the Longley-Rice computer model and has been found to replicate the Commission's results. The guidelines used were established under OET-69. The standard cell size of 2.0 kilometers was used.

August 10, 1998. Attached as Exhibit A2 is an outgoing interference analysis, based on the proposed KAUN-DT. Based on the outgoing interference analysis, no existing NTSC or DTV full service station is impacted by this instant maximization request. Further, an analysis of potentially impacted Class A LPTV stations was also undertaken. There were none identified as being impacted by KAUN-DT.

A: NTSC Study

Channel Relationship	Potentially Affected Desired DTV Station	Distance (kilometers)	Baseline Population (Thousands)	DTV Service (Thousands)	Add'l Interference from Proposed KAUN-DTV (Thousands)	Add'l Interference from Proposed KAUN-DTV (%)
n-0	Allocation, Lincoln, NE (with pending applications)	299	N/A	N/A	No Interference Delivered	0
n+1	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n-1	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n+2	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n-2	Vacant Allotment, Esterville, IA ⁶ Ch. 49+	N/A	N/A	N/A	N/A	N/A
n+3	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n-3	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n+4	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n-4	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n+7	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n-7	KPTH.CP, Sioux City, IA Ch. 44+, 5000.0 kW, 611m	106	352	360	No Interference Delivered	0
n+8	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n-8	KRWF, Redwood Falls, MN Ch. 432, 1230.0 kW, 167 m	139	74	74	No Interference Delivered	0
n+14	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n+15	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A

6) Meets §73.610

**EXHIBIT #A1
MINOR CHANGE APPLICATION
RAPID BROADCASTING COMPANY
KAUN-DT TELEVISION STATION
CH 51 - 200.0 KW
SIOUX FALLS, SOUTH DAKOTA
June 2001**

B: DTV Study

Channel Relationship	Potentially Affected Desired DTV Station	Distance (kilometers)	Baseline Population (Thousands)	DTV Service (Thousands)	Add'l Interference from Proposed KAUN-DTV (Thousands)	Add'l Interference from Proposed KAUN-DTV (%)
n-0	Allotment, Cedar Rapids, IA Ch. 51, 1000.0 kW, 442 m	406	779	809	0	0
n-0	Application, Cedar Rapids, IA Ch. 51, 1000.0 kW, 442 m	405	779	809	0	0
n+1	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A
n+1	None sufficiently close for concern	N/A	N/A	N/A	N/A	N/A

EXHIBIT #A1 (continued)
MINOR CHANGE APPLICATION
RAPID BROADCASTING COMPANY
KAUN-DT TELEVISION STATION
CH 51 - 200.0 KW
SIOUX FALLS, SOUTH DAKOTA
June 2001

TV Interference Culling Table

Reference station information:

Latitude: 43-30-19 N
Longitude: 096-34-19 W
Channel: 51
Type: Digital

Call	City	State	Chan	Dist	Type	Lic
KGAN-D	Cedar Rapids	IA	51	405.5	D	CP
AP311	Lincoln	NE	51	274.5	A	AP
AP621	Lincoln	NE	51	306.1	A	AP
AP624	Lincoln	NE	51	249.7	A	AP
AP627	Lincoln	NE	51	274.0	A	AP
AP330	Lincoln	NE	51	304.3	A	AP
KGAN	CEDAR RAPIDS	IA	51	405.5	D	ALD

Graham Brock, Inc. Population Report

KAUN-D.P.A (51) Sioux Falls, SD
TV Outgoing Interference Study
Signal Resolution: 2 km
Consider NTSC Taboo: Yes
KWX error points are considered to
 be interference free coverage.
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 free.

Study Date: 6/14/01
TV Database Date: 06-08-01

Population Database: 1990 US Census

Stations which receive interference:

Call Letters	H Units	Population	Area (sq. km)
--------------	---------	------------	---------------

Totals for KAUN-D.P.A

 Total population to which interference is caused: 0

 Total number of housing units to which interference is caused: 0