

CONTOUR OVERLAP AND  
LONGLEY-RICE INTERFERENCE STUDIES  
PROPOSED KCTU-LP  
CHANNEL 5 – WICHITA, KANSAS  
[AMENDMENT TO BPTVL-20021007AAA]

We conducted a computer analysis of the interference situation for the proposed facility, the results of which are shown in Exhibit D-2. The study is based on contour protection requirements of Sections 74.705, 74.706, and 74.707 of the FCC's Rules with respect to analog full-power, digital full-power, and low power television stations, respectively. It concludes that the facility proposed herein meets these requirements except to four stations: KBSD-DT(CP), Channel 5, Ensign, Kansas; KOCO-TV, Channel 5, Oklahoma City, Oklahoma; KHAS-TV (Lic., Appl.), Channel 5, Hastings, Nebraska; and, KFSM-TV (Lic., CP), Channel 5, Fort Smith, Arizona.

We then conducted detailed interference studies using the Longley-Rice methodology contained in the Commission's *OET Bulletin No. 69*, with respect to these facilities of concern. The software utilizes a 2-square kilometer cell size (except where noted), calculates signal strength at 1.0 kilometer increments along each radial studied, and employs the 1990 U.S. Census to count population within cells. In addition, the program does not attribute interference to the proposed facility in cells within the protected contour of the station under study where interference from another source (other than proposed KCTU-LP) already is predicted to exist (also known as "masking").

The results of these studies are provided in Exhibit D-3. It concludes that the facility proposed herein causes no new interference to any of the above stations.

As a result, waivers of Section 74.705 of the Commission's Rules with respect to interference to KOCO-TV, KHAS-TV, and KFSM-TV, and Section 74.706 with regard to KBSD-DT are requested and believed to be justified based on the aforementioned Longley-Rice studies.

SMITH AND FISHER

EXHIBIT D-2

PROPOSED KCTU-LP  
WICHITA - KANSAS

REFERENCE  
37 41 53 N  
97 19 10 W

LPTV Pwr = 3 kW, HAMS L COR= 492 M

DISPLAY DATES  
DATA 08-23-03  
SEARCH 08-28-03

..... Channel 5-, 70 MHz .....

Call	Channel	Location	Dist	Azi	FCC	Margin
KBSD-D*CP	05	Ensign	KS 266.94	269.6	> 352.84	-85.90
KOCOTV*LI	05Z	Oklahoma City	OK 237.47	183.7	> 296.71	-59.06
KHASTV*AP	05-	Hastings	NE 348.15	338.4	> 388.86	-40.71
KHASTV*LI	05-	Hastings	NE 340.57	344.7	> 374.68	-34.11
KFSMTV*LI	05-	Fort Smith	AR 359.07	131.7	> 384.71	-25.64
KFSMTV*CP	05-	Fort Smith	AR 359.07	131.7	> 384.25	-25.18
KCTV* LI	05+	Kansas City	MO 283.56	56.5	> 276.58	6.98

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

INTERFERENCE SUMMARY  
 PROPOSED KCTU-LP  
 CHANNEL 5 – WICHITA, KANSAS  
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<u>Call Sign</u>	<u>Status</u>	<u>City, State</u>	<u>Ch.</u>	<u>Longley-Rice Service Population</u>	<u>Unmasked Interference From Proposed Facility</u>	<u>%</u>
KBSD-DT BPCDT-19991015ABG	CP	Ensign, KS	5	138,057	64	<0.1
KOCO-TV BLCT-19930607KE	Lic.	Oklahoma City, OK	5	1,311,271	2,133	0.16
KHAS-TV BPCT-20001121AIA	Appl.	Hastings, NE	5	243,199	0	0
KHAS-TV BLCT-2417	Lic.	Hastings, NE	5	219,385	0	0
KFSM-TV BLCT-1563	Lic.	Fort Smith, AR	5	611,530	0	0
KFSM-TV BPCT-19990920ABE	Lic.	Fort Smith, AR	5	607,610	0	0