

POST-TRANSITION DTV PROTECTION
Free State Communications, LLC
Topeka, KS

Interference studies were conducted to evaluate the predicted interference, when compared to the KTKA-DT post-transition allotment facilities, to all other post-transition DTV allotments requiring protection consideration from the post-transition facilities proposed for KTKA-DT in the attached application. These interference studies were conducted utilizing the FCC's "FLR" computer program modified to run on a Windows XP platform and recompiled under the Compaq (DEC) Visual Fortran compiler. The version of the "FLR" program utilized in conducting these studies utilized a two kilometer cell size and 2000 census data. This implementation of the "FLR" program was run for several stations utilizing the databases employed by the FCC to generate the benchmark values contained in Appendix B of the December 18, 1998 Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders in MM Docket 87-268 and 1990 census data and yielded results essentially identical to those found in Appendix B for these stations. Thus, it is felt that this implementation of the "FLR" program faithfully reproduces the results obtained by the FCC in their implementation of this program.

These interference studies were conducted on all post-transition DTV allotments for which the proposed KTKA-DT site is located within the distances outlined in Table 7 of OET Bulletin 69 of the Noise Limited contour. In conducting these interference studies, all NTSC stations were assumed to have ceased operation and all interfering DTV facilities were considered to be operating with their authorized post-transition allotment facilities. These studies were conducted to evaluate the impact of the proposed KTKA-

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DT operating facilities on the post-transition DTV allotment facilities for two other stations:

KRBK-DT	Osage Beach, MO	Channel 49
KGEB-DT	Tulsa, OK	Channel 49

The results of these studies are tabulated in Tables 44.0 and 44.1. These tables contain a complete listing of the stations which were included in each study and the facilities which were considered for each station included in the study. They also contain the output of the "FLR" program for the station being studied for both the KTKA-DT post-transition DTV allotment facilities and the facilities proposed in the attached application.

As shown by this data, the facilities proposed for KTKA-DT in the attached application, when compared to KTKA-DT's post transition DTV allotment, would not result in any increase in the predicted interference to either KRBK-DT or KGEB-DT. Based on this information, it is obvious that the operating facilities proposed for KTKA-DT in the attached application fully comply with the applicable post-transition protection requirements to all other stations requiring protection consideration.

TABLE 44.0

**OET 69 POST-TRANSITION INTERFERENCE
STUDIES - KRBK-DT - OSAGE BEACH, MO**

Free State Communications, LLC
Topeka, KS

STATION BEING STUDIED

<u>Call</u>	<u>Location</u>	<u>Channel</u>	<u>Mode</u>	
KRBK-DT	Osage Beach, MO	49	DTV	Post-Transition Allotment

STATIONS CONSIDERED IN STUDIES

<u>Call</u>	<u>Location</u>	<u>Channel</u>	<u>Mode</u>	<u>Status</u>
KNWA-DT	Rogers, AR	50	DTV	Post-Transition Allotment
WDKA-DT	Paducah, KY	49	DTV	Post-Transition Allotment
KGEB-DT	Tulsa, OK	49	DTV	Post-Transition Allotment
KTKA-DT	Topeka, KS	49	DTV	Applicant

STUDY RESULTS FOR KTKA-DT POST-TRANSITION ALLOTMENT FACILITIES

	POPULATION	AREA (sq km)
within Noise Limited Contour	526729	23679.9
not affected by terrain losses	522750	23358.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	34	20.1
lost to ATV IX only	34	20.1
lost to all IX	34	20.1

STUDY RESULTS FOR PROPOSED KTKA-DT POST-TRANSITION FACILITIES

	POPULATION	AREA (sq km)
within Noise Limited Contour	526729	23679.9
not affected by terrain losses	522750	23358.9
lost to NTSC IX	0	0.0
lost to additional IX by ATV	34	20.1
lost to ATV IX only	34	20.1
lost to all IX	34	20.1

SUMMARY OF STUDY RESULTS

	With KTKA-DT Post-Transition <u>Allotment</u>	With Proposed <u>KTKA-DT</u>	<u>Increase/(Decrease)</u>
DTV Service	522,716	522,716	0

TABLE 44.1

OET 69 POST-TRANSITION INTERFERENCE
STUDIES - KGEB-DT - TULSA, OK
 Free State Communications, LLC
 Topeka, KS

STATION BEING STUDIED

<u>Call</u>	<u>Location</u>	<u>Channel</u>	<u>Mode</u>	
KGEB-DT	Tulsa, OK	49	DTV	Post-Transition Allotment

STATIONS CONSIDERED IN STUDIES

<u>Call</u>	<u>Location</u>	<u>Channel</u>	<u>Mode</u>	<u>Status</u>
KRBK-DT	Osage Beach, MO	49	DTV	Post-Transition Allotment
KOPX-DT	Oklahoma City, OK	50	DTV	Post-Transition Allotment
KTKA-DT	Topeka, KS	49	DTV	Applicant

STUDY RESULTS FOR KTKA-DT POST-TRANSITION ALLOTMENT FACILITIES

	POPULATION	AREA (sq km)
within Noise Limited Contour	894410	13142.9
not affected by terrain losses	893797	13082.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	20	8.0
lost to ATV IX only	20	8.0
lost to all IX	20	8.0

STUDY RESULTS FOR PROPOSED KTKA-DT POST-TRANSITION FACILITIES

	POPULATION	AREA (sq km)
within Noise Limited Contour	894410	13142.9
not affected by terrain losses	893797	13082.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	20	8.0
lost to ATV IX only	20	8.0
lost to all IX	20	8.0

SUMMARY OF STUDY RESULTS

	With KTKA-DT Post-Transition <u>Allotment</u>	With Proposed <u>KTKA-DT</u>	<u>Increase/(Decrease)</u>
DTV Service	893,777	893,777	0