



KHGI-TV - KEARNEY, NEBRASKA **JULY 2021** **APPENDIX B** **Longley-Rice Interference Analysis**

tvstudy v2.2.5 (4uoc83)
 Database: localhost, Study: KHGI 18 1000kW OMNI, Model: Longley-Rice
 Start: 2020.11.17 10:55:26

Study created: 2020.11.17 10:55:26

Study build station data: LMS TV 2020-11-17

Proposal: KHGI-TV D18 DT APP KEARNEY, NE
 File number: KHGI 18 1000kW OMNI
 Facility ID: 21160
 Station data: User record
 Record ID: 1329
 Country: U.S.
 Zone: II

Search options:
 Non-U.S. records included
 Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KLBY	D17	DT	LIC	COLBY, KS	BLANK0000086337	263.1 km
No	KAAS-TV	D17	DT	CP	SALINA, KS	BLANK0000035657	213.9
No	KAAS-TV	D17	DT	LIC	SALINA, KS	BLCDT20021120AAP	213.9
No	KYNE-TV	D17	DT	LIC	OMAHA, NE	BLANK0000123806	249.2
No	KCPT	D18	DT	LIC	KANSAS CITY, MO	BLEDT20090821AAU	413.1
No	KWKS	D19	DT	LIC	COLBY, KS	BLEDT20070601ATA	264.3
No	KXNE-TV	D19	DT	CP	NORFOLK, NE	BLANK0000035898	219.9
No	KXNE-TV	D19	DT	LIC	NORFOLK, NE	BLEDT20090615ADS	219.9

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D18
 Latitude: 40 39 27.90 N (NAD83)
 Longitude: 98 52 5.00 W
 Height AMSL: 974.8 m
 HAAT: 338.0 m
 Peak ERP: 1000 kW
 Antenna: Omnidirectional
 Elev Pattn: Generic

39.1 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1000 kW	342.3 m	105.0 km
45.0	1000	355.0	106.2
90.0	1000	351.3	105.8
135.0	1000	343.1	105.0
180.0	1000	332.2	104.0
225.0	1000	327.1	103.5
270.0	1000	333.1	104.1

Appendix B - Interference Analysis **KHGI-TV - Kearney, Nebraska** **Channel 18 - 1000 kW - Page 2**

315.0 1000 335.2 104.3

Database HAAT does not agree with computed HAAT

Database HAAT: 338 m Computed HAAT: 340 m

Distance to Canadian border: 927.2 km

Distance to Mexican border: 1198.2 km

****Proposal is within coordination distance of FCC monitoring station**

Conditions at FCC monitoring station: Grand Island NE

Bearing: 51.3 degrees Distance: 47.3 km

ERP: 1000 kW HAAT: 356.2 m Field strength: 78.1 dBu, 8.0 mV/m

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 266.1 degrees Distance: 540.9 km

No land mobile station failures found

Study cell size: 2.00 km

Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%

Maximum new IX to LPTV: 2.00%

Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KHGI-TV	D18	DT	APP	KEARNEY, NE	KHGI 18 1000kW OMNI	

	Service area		Terrain-limited		IX-free		Percent IX
34437.3	240,173	34263.9	239,450	34263.9	239,450	0.00	0.00