

KGDR-LP DISPLACEMENT APPLICATION FOR CH 20 15 kW DA  
RUIDOSO, NEW MEXICO  
ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS  
MAY 2018

The proposed facility qualifies for displacement as described in FCC PN DA 18-124 released February 9, 2018. KGDR-LP is a licensed LPTV facility as authorized in file number BLTTL-19950502IF. The KGDR-LP facility is clearly displaced since it is assigned out of core channel 47. The proposed facility is not believed to be contingent on an existing authorized facility needing to vacate CH 20 prior to its use by KGDR-LP.

The proposed antenna system is an Alive Telecom 8 slot UHF antenna model ATC-BCH58M-20, horizontally polarized antenna with 1.25 degrees electrical beam tilt. The maximum relative field in the elevation pattern across the depression angle range of 20 to 90 degrees is less than 0.25 with a radiation center 43 meters above ground. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 0.25 has been used to calculate the power density 2 meters above ground. The maximum power density is 18.6 uw/cm squared calculated for an ERP OF 15,000 watts H. polarization. This value is 5.53% of the Public Exposure MPE per section 1.1310. Based on this analysis it is believed that the proposed facility is in compliance with OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Guidelines.

The proposed tower is at an existing site with, building, access road and power.

Attached is a copy of the TVStudy interference analysis for CH 20 based on the proposed 15 kW ERP and Omniid DA antenna described above with an orientation of 180 degrees. As can be seen at the conclusion there is no ISIX above FCC tolerances and no received interference in excess of 2%.

It is believed that the proposed facility provides full protection to other television facilities.

## REPORT

Study created: 2018.05.30 06:50:27

Study build station data: LMS TV 2018-05-27

Proposal: KGDR-LP D20 LD LIC RUIDOSO, NM  
File number: BLTT19950502IF  
Facility ID: 53532  
Station data: User record  
Record ID: 61  
Country: U.S.

Search options:

Non-U.S. records included

All records for new LPTV stations excluded

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KVBA-LP	N19+	TX	LIC	ALAMOGORDO, NM	BLTTTL20070720AAD	64.4 km
No	K19JZ-D	D19	LD	LIC	CARLSBAD, NM	BLDTT20120705ABT	161.5
No	K38MH-D	D19	LD	APP	LAS CRUCES & ORGAN, NM	BLANK0000052553	163.6
No	K20GG-D	D20	LD	LIC	DUNCAN, AZ	BLDTT20090715AIQ	333.6
Yes	KNMQ-LD	D20	LD	APP	ALBUQUERQUE, NM	BLANK0000029883	210.4
No	K20HA	N20z	TX	LIC	CABALLO, NM	BLTT20050202ADM	142.5
No	K20LO-D	D20	LD	CP	DEMING, NM	BNPDTL20100504AMZ	248.9
Yes	K20KT-D	D20	LD	LIC	DORA, NM	BLDTT20110809ABU	217.3
No	K20GT-D	D20	LD	LIC	INDIAN VILLAGE, NM	BLDTT20120522AFA	321.4
No	KCWF-LP	N20+	TX	LIC	LAS CRUCES, NM	BLTTTL20110415AAC	143.8
Yes	K20GQ-D	D20	LD	LIC	LAS VEGAS, NM	BLDTT20091112AKK	249.2
No	KDAX-LD	D20	LD	CP	AMARILLO, TX	BDCCDTL20081215AAW	419.9
No	K20LI-D	D20	LD	CP	BALMORHEA, TX	BNPDTL20100416ABG	328.3
Yes	KTFN	D20	DT	CP	EL PASO, TX	BLANK0000034466	189.4
No	KFIQ-LP	D20	LD	CP	LUBBOCK, TX	BDISDTL20090630AAZ	363.1
No	KTLE-LP	N20z	TX	LIC	ODESSA, TX	BLTTTL20121010AAB	361.4
Yes	K21LR-D	D21	LD	CP	ALAMOGORDO, NM	BDCCDTL20110301ABA	64.6
No	KYNM-CD	D21	DC	LIC	ALBUQUERQUE, NM	BLANK0000001606	210.4
No	K21IM-D	D21	LD	LIC	FORT SUMNER, NM	BLDTT20090303AAY	177.4
No	KRWB-TV	D21	DT	LIC	ROSWELL, NM	BLCDT20090619ABH	145.9
No	KSCE	D21	DT	CP	EL PASO, TX	BLANK0000034547	189.4
No	K24CT	N24	TX	LIC	ALAMOGORDO, NM	BLTTTL19980804JD	64.4
No	K27BN	N27	TX	LIC	TRUTH OR CONSEQUENCE, NM	BLTT19871106IB	142.6

No K28HB N28+ TX LIC ALAMOGORDO, NM

BLTTL20010801ALG

64.4

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D20  
Mask: Full Service  
Latitude: 33 24 14.20 N (NAD83)  
Longitude: 105 46 56.90 W  
Height AMSL: 3327.0 m  
HAAT: 0.0 m  
Peak ERP: 15.0 kW  
Antenna: ATC-8CH58M-20 180.0 deg  
Elev Pattn: Generic  
Elec Tilt: 1.25

49.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	7.54 kW	782.8 m	69.4 km
45.0	6.42	979.4	71.9
90.0	7.22	1000.1	73.2
135.0	12.1	1005.0	77.3
180.0	15.0	675.6	71.9
225.0	12.1	728.0	71.6
270.0	7.22	1172.9	76.9
315.0	6.42	910.4	70.6

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 907 m

Distance to Canadian border: 1733.5 km

\*\*Proposal is within coordination distance of Mexican border

Distance to Mexican border: 192.7 km

Conditions at FCC monitoring station: Douglas AZ

Bearing: 240.8 degrees Distance: 420.2 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 3.5 degrees    Distance: 747.8 km

No land mobile station failures found

Study cell size: 0.50 km  
Profile point spacing: 0.50 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

No IX check failures found.

## ISIX

tvstudy v2.2.5 (4uoc83)  
Database: 127.0.0.1,    Study: BLTT19950502IF #133,    Model: Longley-Rice  
Start: 2018.05.30 06:50:27

Study created: 2018.05.30 06:50:27

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No	K21IM-D	D21	LD	LIC	FORT SUMNER, NM	BLDTT20090303AAY	177.4
No	KRWB-TV	D21	DT	LIC	ROSWELL, NM	BLCDT20090619ABH	145.9
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49.4 dBu contour:

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Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 3.5 degrees Distance: 747.8 km

No land mobile station failures found

Study cell size: 0.50 km  
Profile point spacing: 0.50 km

Maximum new IX to full-service and Class A: 0.50%  
Maximum new IX to LPTV: 2.00%

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Interference to BLANK0000029883 APP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KNMQ-LD	D20	LD	APP	ALBUQUERQUE, NM	BLANK0000029883	
Undesireds:	KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	210.4 km
	KFJK-LD	D19	LD	LIC	SANTA FE, NM	BLANK0000013406	45.2
	KRMU	D20	DT	LIC	DURANGO, CO	BLEDT20041012AIM	262.1
	K20GT-D	D20	LD	LIC	INDIAN VILLAGE, NM	BLDTT20120522AFA	164.7
	KYNM-CD	D21	DC	LIC	ALBUQUERQUE, NM	BLANK0000001606	0.0
	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	18200.5	1,027,372	16683.6	1,019,540	16680.6	1,019,540	0.94 0.02
Undesired				Total IX	Unique IX, before	Unique IX, after	
KGDR-LP D20 LD LIC				157.7	249	157.4	249
KFJK-LD D19 LD LIC				1.7	0	1.7	0
KRMU D20 DT LIC				0.5	0	0.0	0
K20GT-D D20 LD LIC				0.5	0	0.0	0
KYNM-CD D21 DC LIC				0.7	0	0.5	0

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Interference to BLANK0000029883 APP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KNMQ-LD	D20	LD	APP	ALBUQUERQUE, NM	BLANK0000029883	
Undesireds:	KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	210.4 km
	KFJK-LD	D19	LD	CP	SANTA FE, NM	BLANK0000013456	0.1
	KRMU	D20	DT	LIC	DURANGO, CO	BLEDT20041012AIM	262.1
	K20GT-D	D20	LD	LIC	INDIAN VILLAGE, NM	BLDTT20120522AFA	164.7
	KYNM-CD	D21	DC	LIC	ALBUQUERQUE, NM	BLANK0000001606	0.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
18200.5 1,027,372	16683.6 1,019,540	16678.6 1,019,540	16521.7 1,019,291	0.94 0.02

Undesired	Total IX	Unique IX, before	Unique IX, after
KGDR-LP D20 LD LIC	157.7 249		156.9 249
KFJK-LD D19 LD CP	4.0 0	3.7 0	3.2 0
KRMU D20 DT LIC	0.5 0	0.0 0	0.0 0
K20GT-D D20 LD LIC	0.5 0	0.0 0	0.0 0
KYNM-CD D21 DC LIC	0.7 0	0.5 0	0.5 0

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Interference to BLDDTT20110809ABU LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: K20KT-D	D20	LD	LIC	DORA, NM	BLDDTT20110809ABU	
Undesireds: KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	217.3 km

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
857.1 17,018	857.1 17,018	857.1 17,018	856.6 17,018	0.06 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
KGDR-LP D20 LD LIC	0.5 0		0.5 0

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Interference to BLDDTT20091112AKK LIC scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: K20GQ-D	D20	LD	LIC	LAS VEGAS, NM	BLDDTT20091112AKK	
Undesireds: KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	249.2 km
KFJK-LD	D19	LD	LIC	SANTA FE, NM	BLANK0000013406	80.3
KNMQ-LD	D20	LD	APP	ALBUQUERQUE, NM	BLANK0000029883	116.2
K20CV-D	D20	LD	LIC	RATON, NM	BLDDTT20101008AAL	141.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
1700.9 19,979	1530.2 19,774	1520.0 19,774	1519.0 19,774	0.07 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
KGDR-LP D20 LD LIC	1.0 0		1.0 0
KNMQ-LD D20 LD APP	10.2 0	9.7 0	9.7 0
K20CV-D D20 LD LIC	0.5 0	0.0 0	0.0 0

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Interference to BLANK0000034466 CP scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KTFN	D20	DT	CP	EL PASO, TX	BLANK0000034466	
Undesireds: KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	189.4 km

KSCE	D21	DT	CP	EL PASO, TX	BLANK0000034547	0.0	
Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
23228.4	1,017,253	21353.1	1,013,856	21341.4	1,013,856	1.46 0.00	
10457.8	1,343,156	10156.5	1,342,642	10155.5	1,342,642	1.16 0.00 (in Mexico)	

Undesired	Total IX	Unique IX, before	Unique IX, after
KGDR-LP D20 LD LIC	313.8	6	312.6
KGDR-LP D20 LD LIC	117.7	3	117.7
KSCE D21 DT CP	11.7	0	10.5
KSCE D21 DT CP	1.0	0	1.0

(in Mexico)

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Interference to BLANK0000034466 CP scenario 2

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: KTFN	D20	DT	CP	EL PASO, TX	BLANK0000034466	
Undesireds: KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	189.4 km
KSCE	D21	DT	BL	EL PASO, TX	DTVBL10202	0.0

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
23228.4	1,017,253	21353.1	1,013,856	21352.9	1,013,856	1.47 0.00	
10457.8	1,343,156	10156.5	1,342,642	10156.5	1,342,642	1.16 0.00 (in Mexico)	

Undesired	Total IX	Unique IX, before	Unique IX, after
KGDR-LP D20 LD LIC	313.8	6	313.8
KGDR-LP D20 LD LIC	117.7	3	117.7
KSCE D21 DT BL	0.2	0	0.2

(in Mexico)

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Interference to BDCCDTL20110301ABA CP scenario 1

Call	Chan	Svc	Status	City, State	File Number	Distance
Desired: K21LR-D	D21	LD	CP	ALAMOGORDO, NM	BDCCDTL20110301ABA	
Undesireds: KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	64.6 km
KTFN	D20	DT	CP	EL PASO, TX	BLANK0000034466	126.9
KYNM-CD	D21	DC	LIC	ALBUQUERQUE, NM	BLANK0000001606	270.1
K48HL-D	D21	LD	APP	DATIL/HORSE SPRINGS, NM	BLANK0000053911	210.9
KRWB-TV	D21	DT	LIC	ROSWELL, NM	BLCDT20090619ABH	155.2
KSCE	D21	DT	CP	EL PASO, TX	BLANK0000034547	126.9

Service area	Terrain-limited		IX-free, before		IX-free, after		Percent New IX
10190.0	52,043	9177.7	51,438	7719.4	50,418	0.00 0.00	

Undesired	Total IX	Unique IX, before	Unique IX, after
KGDR-LP D20 LD LIC	1.2	0	0.0
KTFN D20 DT CP	2.0	0	0.0
KYNM-CD D21 DC LIC	0.5	0	0.5
K48HL-D D21 LD APP	0.7	0	0.5



KRWB-TV D21 DT LIC	3.4	0	1.9	0	1.7	0
KSCE D21 DT CP	1455.2	1,020	1452.0	1,020	1451.0	1,020

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Interference to proposal scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KGDR-LP	D20	LD	LIC	RUIDOSO, NM	BLTT19950502IF	
Undesireds:	K19JZ-D	D19	LD	LIC	CARLSBAD, NM	BLDTT20120705ABT	161.5 km
	KNMQ-LD	D20	LD	APP	ALBUQUERQUE, NM	BLANK0000029883	210.4
	KTFN	D20	DT	CP	EL PASO, TX	BLANK0000034466	189.4
	K21LR-D	D21	LD	CP	ALAMOGORDO, NM	BDCCDTL20110301ABA	64.6
	KRWB-TV	D21	DT	LIC	ROSWELL, NM	BLCDT20090619ABH	145.9

Service area	Terrain-limited	IX-free	Percent IX
16861.2      74,293	14563.8      71,215	14423.3      70,720	0.96      0.70

Undesired	Total IX	Unique IX	Prcnt Unique IX
K19JZ-D D19 LD LIC	20.2      7	20.2      7	0.14      0.01
KNMQ-LD D20 LD APP	37.6      407	22.4      192	0.15      0.27
KTFN D20 DT CP	95.7      296	78.3      81	0.54      0.11
K21LR-D D21 LD CP	4.1      0	1.5      0	0.01      0.00
KRWB-TV D21 DT LIC	0.5      0	0.5      0	0.00      0.00

Based on the information supplied herein, and accompanying application for construction permit, it is believed that the proposed facilities meet all applicable FCC requirements for construction permit.

The foregoing was prepared on behalf of Prime Time Christian Broadcasting, Inc. by Clarence M. Beverage of Communications Technologies, Inc., Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The undersigned certifies, under penalty of perjury, that the statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.

By 

Clarence M. Beverage  
for Communications Technologies, Inc.  
Marlton, New Jersey  
May 30, 2018