

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION FOR
SPECIAL TEMPORARY AUTHORIZATION
KTRG-DT, DEL RIO, TEXAS
CHANNEL 28 11.14 KW 99 METERS
AUGUST 2008

This engineering statement has been prepared on behalf of SATV 10, LLC licensee of TV station KTRG(TV), Del Rio, Texas in support of its application for a special temporary authorization (STA) for digital television operation on Channel 28.

At present KTRG(TV), Facility ID Number 55762, is authorized to operate on analog TV Channel 10 (192-198 MHz) with 316 kW effective radiated power (ERP) and 100 meters antenna height above average terrain (HAAT) using a directional TV antenna. In the Seventh Report and Order (MB Docket No. 87-268) the Commission has allotted Channel 28 for the KTRG(TV)'s DTV operation with 1000 kW ERP, 100 meters HAAT and a non-directional antenna. KTRG-DT also holds a construction permit (CP) (BPCDT-19991101AEN) to operate on DTV Channel 28 with 1000 kW ERP and 100 meters HAAT from its licensed analog TV site.

KTRG(TV) faces a unique technical challenge for constructing its CP facilities. KTRG(TV) has been advised that since the DTV antenna needs to be installed at the current analog TV location, implementation of the CP facilities is not feasible without turning off the current analog TV operation. Therefore, an STA is requested to continue operating on DTV Channel 28 with 11.14 kW ERP and 99 meters HAAT using a non-directional TV antenna after the DTV transition.

The following information provides pertinent data for the proposed KTRG-DT STA operation.

Name of the Licensee: SATV 10, LLC
Station Location: TX-Del Rio

Channel:	28			
Hours of Operation:	Unlimited			
Transmitter:	Type Accepted			
Antenna Type:	NIC, Model BKU4-5			
Beam Tilt:	0 deg			
Antenna Coordinates:	North Latitude:	29 deg	20 min	39 sec
	West Longitude:	100 deg	51 min	39 sec
Transmitter output power:	As required to achieve authorized ERP			
Maximum effective radiated power (Average):	11.14 kW 10.47 dBk			
Antenna Location Site Elevation Above Mean Sea Level:	321.8 meters			
Overall Tower Height Above Ground level:	92 meters			
Height of radiation center above ground (meters):	90 meters			
Height of radiation center above mean sea level (meters):	411.8 meters			
Height of radiation center above average terrain (meters):	99 meters			
Antenna Structure Registration Number:	1036769			

The attached maps (Figure 1) shows the computed Grade B (56 dBu) contour of KTRG(TV) on Channel 10 and the noise limited (41 dBu) contour of the Channel 28 DTV facilities as defined in Appendix B. The population (2000 census) served before the transition by the analog TV and Appendix B DTV operation is 54,643 people. Figure 2 shows the noise limited contour for the proposed STA operation on DTV Channel 28 in addition to the analog TV Grade B and Appendix B noise limited contours. The population served after the transition would be 48,032 people. As such, the STA

operation of KTRG-DT would be serving 87.9% (48,032/54,643) of the pre-transition population.

An interference study conducted (see attached Table I) according to the FCC OET Bulletin 69 indicates the proposed KTRG-DT operation would not cause any interference to other DTV stations exceeding the Commission's guidelines of 0.5%.

The attached environmental statement demonstrates that there will not be any significant environmental impact from the proposed DTV operation in accordance with 47 C.F.R. Section 73.1307.

The proposed KTRG-DT facility complies with Section 73.1030 of the Commission's rules; therefore, notification to radio astronomy installations, radio receiving installations and FCC monitoring stations is not required.

The existing KTRG-DT tower is registered (ASR No. 1036769) by the Commission and no changes are proposed to require a change in the registration.

TABLE I

TW Census data selected 2000
 Post Transition Data Base Selected /space/software/cdbs/pt_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 08-18-2008 Time: 09:40:19

Record Selected for Analysis

KTRG USERRECORD-01 DEL RIO TX US
 Channel 28 ERP 11.14 kW HAAT 99. m RCAMSL 00412 m
 Latitude 029-20-39 Longitude 0100-51-39
 Status APP Zone 2 Border
 Last update Cutoff date Docket
 Comments
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	11.140	73.2	48.7
45.0	11.140	69.2	48.0
90.0	11.140	94.0	51.7
135.0	11.140	117.8	54.1
180.0	11.140	120.7	54.4
225.0	11.140	106.1	53.1
270.0	11.140	118.0	54.2
315.0	11.140	93.2	51.6

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KTRG 28 DEL RIO TX USERRECORD01

and station

SHORT TO: KTRG 28 DEL RIO TX DTVPLN DTVP1059
 29 -20-39 100 -51-39
 Req. separation 223.7 Actual separation 0.0 Short 223.7 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations
 Proposed facility OK toward West Virginia quiet zone
 Proposed facility OK toward Table Mountain
 Proposed facility is beyond the Canadian coordination distance
 Proposed facility is within the Mexican coordination distance
 Distance to border = 4.2km

Proposed station is OK toward AM broadcast stations

 Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
28	KTRG	DEL RIO TX	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
28	KHPX-CA	GEORGETOWN TX	338.4	LIC	BLTTA	-20020408AAP

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
28	KHPX-CA	GEORGETOWN TX	BLTTA	-20020408AAP

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
20	KWBU-TV	WACO TX	85.5	LIC	BLEDT	-20060622AAS
20	KWBU-TV	WACO TX	85.5	PLN	DTVPLN	-DTVP0743
21	KXAN-TV	AUSTIN TX	33.4	LIC	BLCDDT	-20050630AAG
21	KXAN-TV	AUSTIN TX	33.4	PLN	DTVPLN	-DTVP0785
26	KXXV	WACO TX	88.4	LIC	BLCDDT	-20050630AFE
26	KXXV	WACO TX	88.4	PLN	DTVPLN	-DTVP0981
27	KXAM-TV	LLANO TX	87.1	CP	BPCDDT	-19991018AAV
27	KXAM-TV	LLANO TX	87.1	PLN	DTVPLN	-DTVP1020
28	KYLE	BRYAN TX	118.3	LIC	BLCT	-19970219KG
28	KYLE	BRYAN TX	118.3	PLN	DTVPLN	-DTVP1058
28	KYLE	BRYAN TX	118.3	APP	BMPCDDT	-20080620AKH
28	KORO	CORPUS CHRISTI TX	321.6	LIC	BLCT	-20021230ABP
28	KTRG	DEL RIO TX	338.4	PLN	DTVPLN	-DTVP1059
28	KHMV-CA	HOUSTON TX	236.3	APP	BSTA	-20060227ACL
28	KHMV-CA	HOUSTON TX	236.3	LIC	BLTTA	-20061214ABD
28	KFDX-TV	WICHITA FALLS TX	375.2	CP MOD	BMPCDDT	-20070621ABP
28	KFDX-TV	WICHITA FALLS TX	375.2	PLN	DTVPLN	-DTVP1060
42	KEYE-TV	AUSTIN TX	34.0	LIC	BLCT	-20031014ACM
43	KEYE-TV	AUSTIN TX	34.0	LIC	BLCDDT	-20031001BGN
43	KEYE-TV	AUSTIN TX	34.0	PLN	DTVPLN	-DTVP1556
28	KTRG	DEL RIO TX	338.4	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 2

Analysis of current record

ENVIRONMENTAL PROTECTION ACT

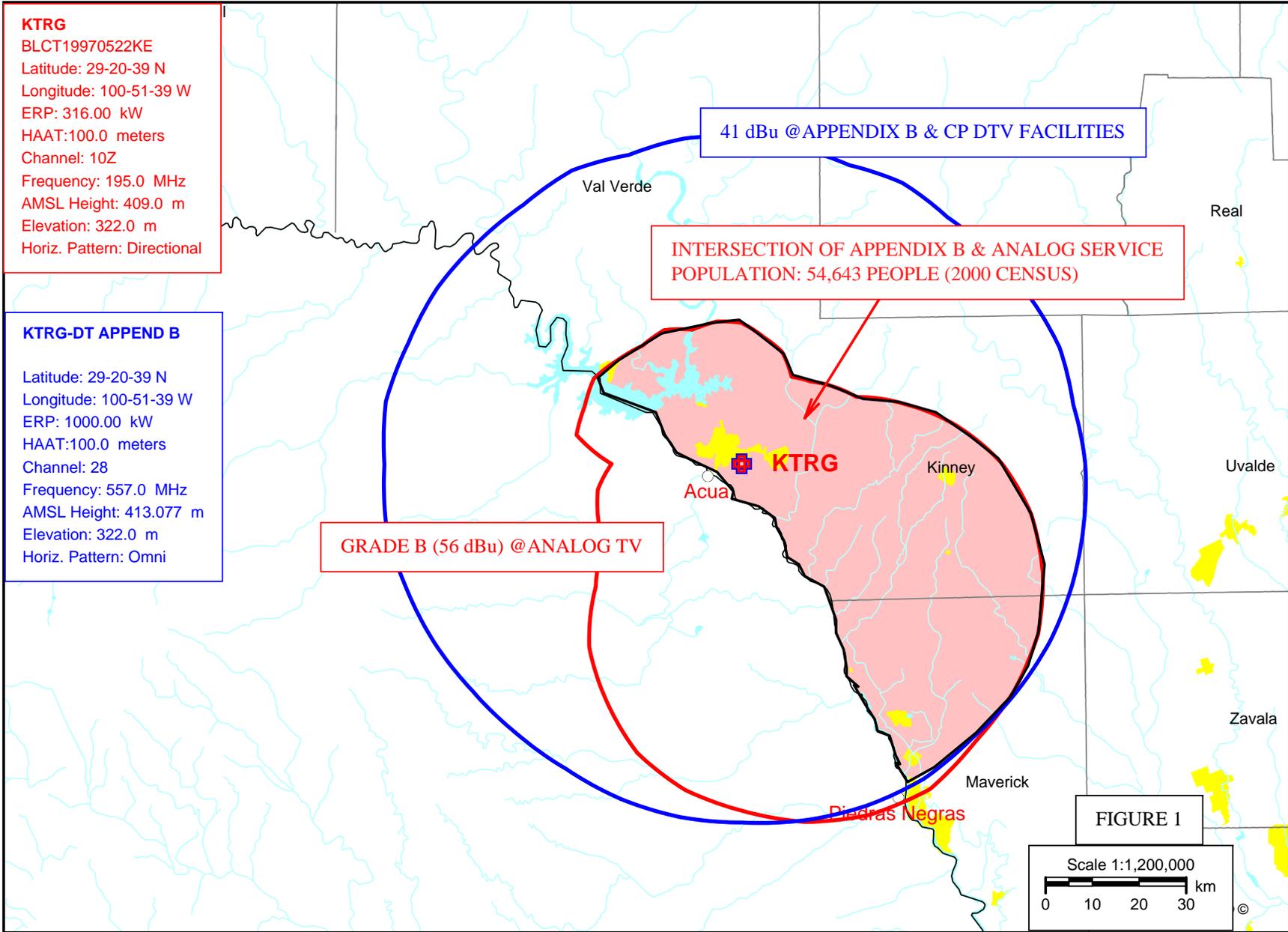
Since KTRG-DT will be using its currently licensed tower (ASR No. 1036769) for the DTV operation the environmental concerns listed in Section 1.1307(a) of the Commission's rules are not pertinent; therefore, those issues have not been addressed.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 11.14 kW and a radiation center of 90 meters above ground level, the proposed Channel 28 DTV operation would have less than 2 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.2 in the downward direction.

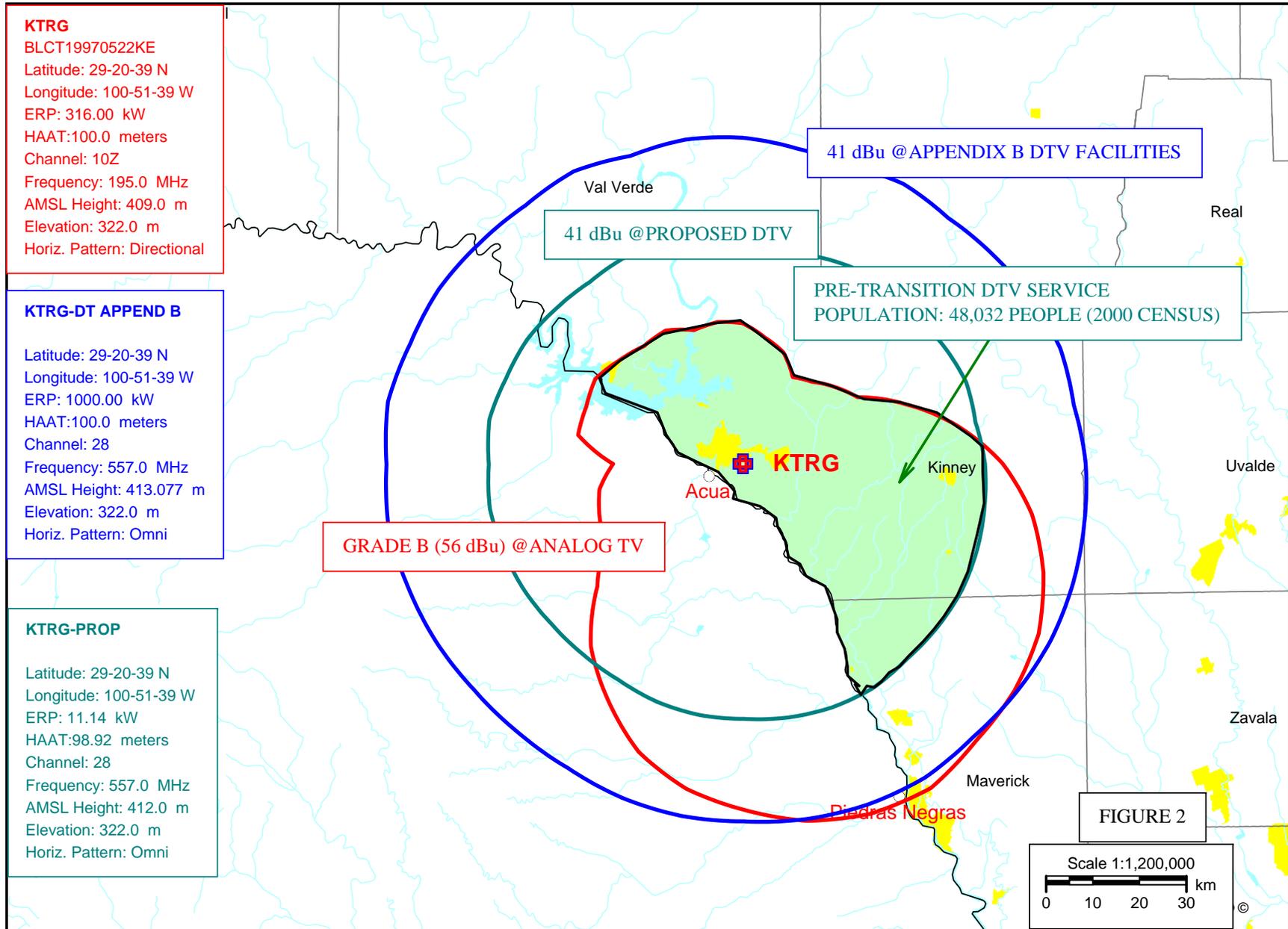
The Commission's guidelines for the Channel 28 TV are $1847 \mu\text{W}/\text{cm}^2$ for the occupational/controlled, and $369 \mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the KTRG-DT tower would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, KTRG-DT will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.



COMPUTED CONTOURS FOR THE ANALOG TV AND APPENDIX B DTV OPERATIONS OF KTRG, DEL RIO, TEXAS



COMPUTED CONTOURS FOR THE ANALOG TV, APPENDIX B AND PROPOSED DTV OPERATIONS OF KTRG, DEL RIO, TEXAS