Kessler and Gehman Associates
Consultants • Broadcast • Wireless

DIGITAL TV TRANSLATOR CONSTRUCTION PERMIT MINOR MODIFICATION APPLICATION

CALL SIGN: K13NY-D
FACILITY ID: 187585
LOCATION: TYLER, TX

Prepared For:

Roseland Broadcasting, Inc.
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Prepared By:

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1.0 INTRODUCTION AND SCOPE OF WORK

Roseland Broadcasting, Inc. is the licensee of a digital low power television translator broadcast station having call sign K13NY-D, and facility ID 187585. K13NY-D has a construction permit[1] to operate on channel 13 using an directional antenna with an ERP of 0.3 kW at a height of 432.7m AMSL on antenna structure number 1052125. It is proposed to modify the construction permit to

- replace the ERI directional antenna with an Sangamo 9700 omni-directional antenna,
- decrease the ERP from 300W to 218W,
- decrease the antenna height AMSL by 266m, and
- change the transmitter site from
  - 32-32-24.0 N 95-13-12.0 W (NAD 83) to
  - 32-16-26.8 N 95-17-55.3 W (NAD 83).

No other changes are proposed.

2.0 MINOR MODIFICATION

The proposed facility modification described in section 1.0 is considered “minor” pursuant to 47 CFR 74.787 since

- there is no change in output frequency,
- the protected contour of the proposed facility overlaps some portion of the protected contour of the authorized facility as illustrated in Appendix B,
- and the change in transmitting antenna location is less than 30 miles (48km) from the reference coordinates of the existing station’s antenna location.

[1] FCC File No.: BNPDVL-20100611AAB

3.0 TRANSMITTER LOCATION AND TOWER REGISTRATION

It is proposed to move K13NY-D from its permitted location to an existing tower not registered with the FCC. TOWAIR determines that tower registration is not required:

- "Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided."

It is proposed to side mount the K13NY-D antenna to the existing structure which would not modify the support structure height.

4.0 ALLOCATION ANALYSIS

Appendix A are the summarized results from TVStudy V2.2.5 which illustrate that there are no interference failures to other facilities.

5.0 RADIO FREQUENCY RADIATION (RFR) COMPLIANCE.

A theoretical analysis has been conducted of the human exposure to radio frequency radiation ("RFR") using the calculation methodology described in OET Bulletin 65, Edition 97-01. The RFR analysis is conducted pursuant to the following methodology:

Terrain extraction is compiled from the support structure site, if the support structure is on a rooftop with no higher elevations (e.g., elevator shaft) then flat terrain is compiled. Terrain is extracted using radial lengths of 0.25 miles in 0.001-mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

> Starting from the origin the maximum calculated RFR value is determined among the 360-degree radials for each 0.001-mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

Appendix C is an RFR analysis which demonstrates that the peak RFR exposure is less than 5% of the most restrictive permissible exposure threshold standing anywhere at ground level and in any proximity to the proposed support structure. Pursuant to OET Bulletin 65, since the proposed operation does not exceed 5% of the most restrictive permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR and other sources of RFR need not be taken into consideration for a net effect. The instant application is compliant with the FCC limits for human exposure to RFR and thus is excluded from further environmental processing.

6.0 CERTIFICATION

The foregoing statement and the report regarding the engineering work are true and correct to the best of my knowledge. Executed December 30, 2021.

Kessler and Gehman Associates, Inc.

Ryan Wilhour
Consulting Engineer

APPENDIX A – TVStudy V2.2.5 Allocation Analysis

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Study created: 2021.12.30 15:22:17

Study build station data: LMS TV 2021-12-30

    Proposal: K13NY-D D13 LD CP TYLER, TX
 File number: K13NY at 601 Pam Dr
 Facility ID: 187585
Station data: User record
   Record ID: 946
     Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:
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IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	KBMT	D12	DT	CP	BEAUMONT, TX	BLANK0000035665	267.7 km
No	KBMT	D12	DT	LIC	BEAUMONT, TX	BLCDT20090610ACH	267.7
No	KAMU-TV	D12	DT	LIC	COLLEGE STATION, TX	BLEDT20030319AFB	207.8
No	KJJM-LD	D12	LD	LIC	DALLAS & MESQUITE, TX	BLANK0000106762	175.8
No	KXII	D12	DT	LIC	SHERMAN, TX	BLCDT20090226ACF	240.3
No	KETG	D13	DT	LIC	ARKADELPHIA, AR	BLEDT20100308ACO	272.7
No	WBRZ-TV	D13	DT	LIC	BATON ROUGE, LA	BLCDT20110420ABI	447.5
No	KLTM-TV	D13	DT	LIC	MONROE, LA	BLEDT20090619ABS	303.6
No	KETA-TV	D13	DT	LIC	OKLAHOMA CITY, OK	BLEDT20140929AOU	421.0
No	KHFD-LD	D13	LD	CP	DALLAS, TX	BLANK0000054780	159.9
No	KTRK-TV	D13	DT	LIC	HOUSTON, TX	BLANK0000167232	300.6
No	KAKW-DT	D13	DT	LIC	KILLEEN, TX	BLCDT20120625ABA	307.7
No	KHTM-LD	D13	LD	CP	LUFKIN, TX	BLANK0000153442	118.9
No	KHTM-LD	D13	LD	LIC	LUFKIN, TX	BLANK0000151868	118.9
No	KHTM-LD	N13z	TX	LIC	LUFKIN, TX	BLTVL19931109IA	118.9
No	KJDA-LD	D13	LD	LIC	SHERMAN, TX	BLANK0000001316	240.3

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No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D13
       Mask: Simple
   Latitude:  32 16 26.80 N (NAD83)
  Longitude:  95 17 55.30 W
Height AMSL: 166.7 m
       HAAT: 23.4 m
   Peak ERP: 0.218 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic

48.0 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg  0.218 kW     5.8 m   16.1 km
 45.0      0.218       17.9     16.1
 90.0      0.218       27.4     16.1
135.0      0.218       25.0     16.1
180.0      0.218       31.7     16.4
225.0      0.218       34.2     17.0
270.0      0.218       30.4     16.1
315.0      0.218       14.6     16.1

Distance to Canadian border: 1517.7 km

Distance to Mexican border: 623.1 km

Conditions at FCC monitoring station: Kingsville TX
Bearing: 205.5 degrees   Distance: 592.0 km
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Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 317.2 degrees   Distance: 1244.6 km


Study cell size: 1.00 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%

No IX check failures found.
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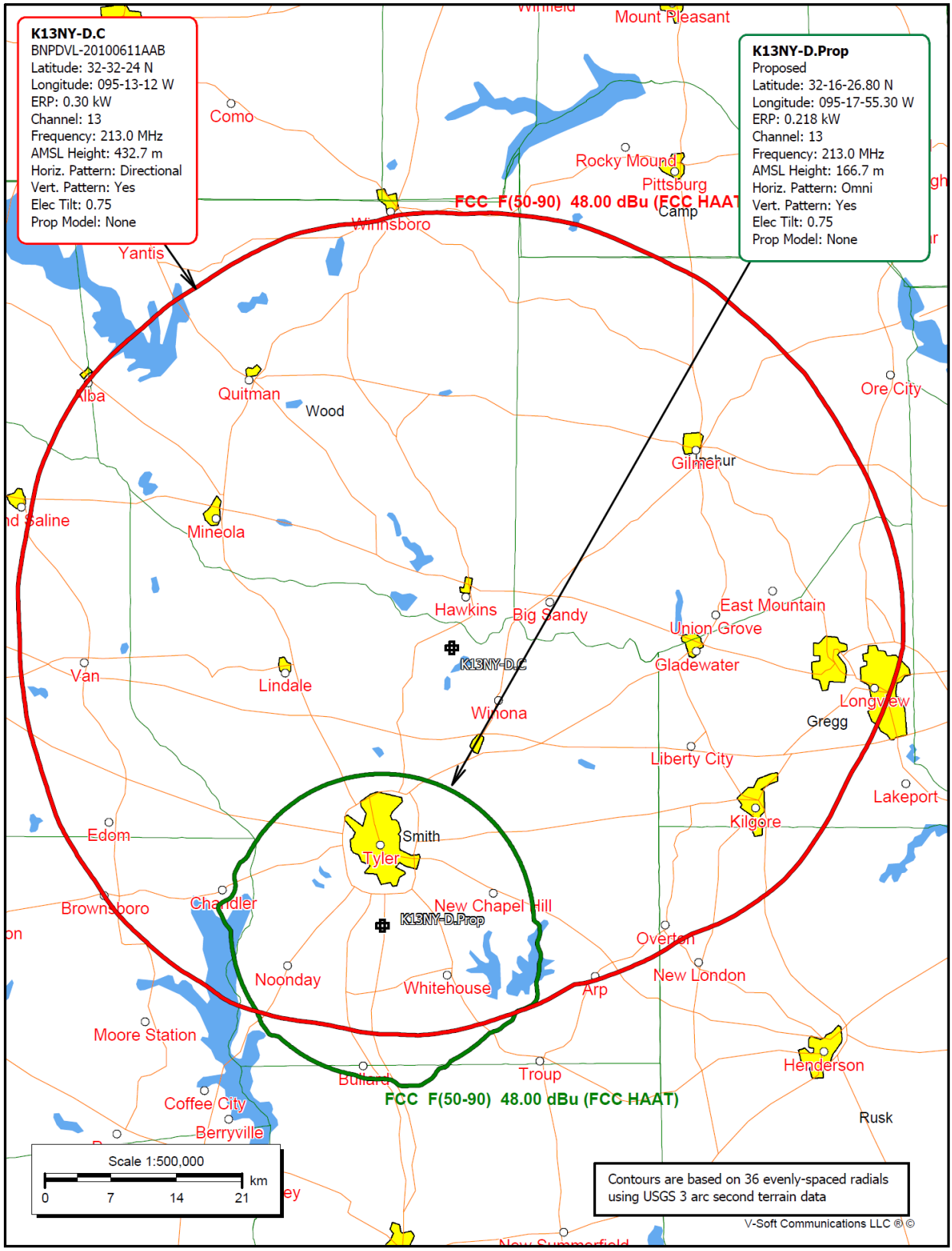
APPENDIX B – 48dBμ F(50,90) Permitted and Proposed Contour



APPENDIX C – Far Field Exposure to RF Emissions