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DIGITAL LPTV TRANSLATOR MINOR MODIFICATION APPLICATION

CALL SIGN: W32FE-D
FACILITY ID: 23928
LOCATION: Hartwell & Royston, GA

Prepared For:

Georgia Public
Telecommunications Commission
260 14th St NW
Atlanta, GA 30318

Prepared By:

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1.0 EXECUTIVE SUMMARY

Georgia Public Telecommunications Commission is the licensee of a digital low power television translator broadcast station having call sign W32FE-D, and facility ID 23928. W32FE-D has a license¹ to operate on channel 32 with a directional antenna having an ERP of 15kW at an HAAT of 147.0m on antenna structure number 1018778. Recently ASR 1018778 was updated to fix the site coordinates and ground elevation. The instant modification does not propose any physical modifications but rather corrects the following technical parameters:

- Correct the site coordinates from
 - 34° 18' 45.0' N Latitude / 82° 56' 15.0' W Longitude to
 - 34° 18' 46.8' N Latitude / 82° 56' 25.5' W Longitude
- Correct the Ground Elevation from 249.3m to 242.3 m
- Correct the CRAMSL from 365.4m to 358.4m
- Correct the HAAT from 147.0m to 139.4m

No other changes are proposed. The proposed modification is considered “minor” pursuant to 74.787(b) since

- there is no change in frequency (output channel),
- there is no change in transmitting antenna location where the protected contour resulting from the change does not overlap some portion of the protected contour of the authorized facilities of the existing station as demonstrated in Appendix B,
- there is no change in transmitting antenna location of greater than 30 miles (48 kilometers) from the reference coordinates of the existing station's antenna location as demonstrated in Appendix B.

¹ FCC File No.: 0000153394

2.0 STATION TRANSMITTER LOCATION AND TOWER ELEVATION

It is proposed to keep W32FE-D at its licensed location on an existing tower which has an FCC Antenna Structure Registration Number (“ASRN”) of 1018778. The instant application does not propose to increase or modify the existing support structure or ASRN and is simply a correction of the record.

3.0 ALLOCATION ANALYSIS

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

4.0 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

4.1 General Environmental Requirements

The proposed modification does not make any changes to the tower, antenna, or transmission line; thus, none of the proposed changes will trigger any of the following bullet points:

- Require high intensity white lighting.
- Is not located in an official designated wilderness area or wildlife preserve.
- Does not threaten the existence or habitat of endangered species.
- Does not affect districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture that are listed in the National Register of Historic Places or are eligible for listing.
- Does not affect Indian religious sites.
- Is not located in a floodplain.
- Does not require construction that involves significant changes in surface features (e.g., wetland fill, deforestation, or water diversion).

4.2 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, pursuant to the following methodology:

Terrain² extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. In this case flat terrain was used to simulate standing on the top floor of the building. 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.

The resulting RFR study in Appendix C demonstrates that the peak exposure is 0.35% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites

² Terrain extraction is based upon a 3 arc second point spacing terrain database.

only those licensees whose transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is within 5% of the most permissible exposure at any location 2 meters above the ground, it is not considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of the proposed facility were not considered. The instant application is compliant with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

5.0 CERTIFICATION

The foregoing statement and the report regarding the engineering work are true and correct to the best of my knowledge. Executed January 24, 2024.

Kessler and Gehman Associates, Inc.



Ryan Wilhour
Consulting Engineer

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APPENDIX A – TVStudy V2.2.5 Allocation Analysis

Study created: 2024.01.23 11:40:37

Study build station data: LMS TV 2024-01-23

Proposal: W32FE-D D32 LD LIC HARTWELL & ROYSTON, GA
File number: W32FE-D Corrected
Facility ID: 23928
Station data: User record
Record ID: 1679
Country: U.S.

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

Search options:
Non-U.S. records included

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WPCH-TV	D31	DT	LIC	ATLANTA, GA	BLANK0000233371	140.5 km
No	WMUB-LD	D31	LD	LIC	WARNER ROBINS, GA	BLANK0000135124	181.4
No	W31DH-D	D31	LD	LIC	FRANKLIN, ETC, NC	BLANK0000143463	118.4
No	W31AN-D	D31	LD	LIC	MURPHY, NC	BLANK0000144221	130.5
No	W31DY-D	D31	LD	LIC	PICKENS, SC	BLANK0000119379	85.0
No	WKTC	D31	DT	LIC	SUMTER, SC	BLANK0000093003	201.2
No	WBXX-TV	D31	DT	LIC	CROSSVILLE, TN	BLANK0000081641	236.6
No	WAXC-LD	D32	LD	CP	ALEXANDER CITY, AL	BDISDTL20120831ABQ	316.6
No	DW50BO	D32+	LD	APP	ASHVILLE, AL	BLANK0000054790	306.7
No	WBMA-LD	D32	LD	LIC	BIRMINGHAM, AL	BLANK0000120220	376.6
No	WTHV-LD	D32	LD	LIC	HUNTSVILLE, AL	BLANK0000199083	332.2
No	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	466.6
Yes	WSB-TV	D32	DT	LIC	ATLANTA, GA	BLANK0000153268	144.4
No	WCTA-LD	D32	LD	LIC	COLUMBUS, GA	BLANK0000180159	274.0
No	W32FN-D	D32	LD	LIC	MACON, GA	BLANK0000179563	183.0
No	W32FN-D	D32	LD	CP	MACON, GA	BLANK0000234748	187.0
No	W32FK-D	D32	LD	LIC	VALDOSTA, GA	BLANK0000196007	353.1
No	W32FK-D	D32	LD	APP	VALDOSTA, GA	BLANK0000202093	353.1
Yes	W32FI-D	D32	LD	LIC	BREVARD, NC	BLANK0000074959	99.3
No	WDRN-LD	D32	LD	LIC	FAYETTEVILLE, NC	BLANK0000141011	378.5
Yes	WAXN-TV	D32	DT	LIC	KANNAPOLIS, NC	BLANK0000146859	227.9
No	WRPX-TV	D32	DT	LIC	ROCKY MOUNT, NC	BLANK0000081831	467.7
Yes	W32EO-D	D32	LD	LIC	TRYON, ETC., NC	BLANK0000119355	123.5
No	WJWJ-TV	D32	DT	LIC	BEAUFORT, SC	BLANK0000100564	274.7
No	WMBF-TV	D32	DT	LIC	MYRTLE BEACH, SC	BLCDT20091105AAP	361.9
No	WNPX-TV	D32	DT	LIC	FRANKLIN, TN	BLANK0000087615	419.1
No	WKPT-TV	D32	DT	LIC	KINGSPORT, TN	BLANK0000070485	246.4
No	DDWEEE-LP	N32+	TX	APP	KNOXVILLE, TN	BPTTL20120508ADS	208.6
No	DDWEEE-LP	N32+	TX	APP	KNOXVILLE, TN	BLTT19980717JA	208.1
No	DDWEEE-LP	D32	LD	APP	KNOXVILLE, TN	BMPDTA20120605AAP	208.6
No	W33EU-D	D33	LD	LIC	ATHENS, GA	BLANK0000197450	56.3
No	WIRE-CD	D33	DC	LIC	ATLANTA, GA	BLANK0000130086	145.2
No	W33ER-D	D33	LD	LIC	AUGUSTA, GA	BLANK0000218372	127.3
No	WGNM	D33	DT	LIC	MACON, GA	BLANK0000113679	181.4
No	W33EH-D	D33	LD	LIC	BLACK MOUNTAIN, NC	BLANK0000082269	148.4
No	WRLK-TV	D33	DT	LIC	COLUMBIA, SC	BLANK0000111852	185.4
No	WNGS-LD	D33	LD	LIC	GREENVILLE, SC	BLANK0000059653	84.9
No	WPDP-CD	D33-	DC	LIC	CLEVELAND, TN	BLANK0000081661	178.8
No	WKXT-LD	D33	LD	CP	Knoxville, TN	BLANK0000108601	208.6
No	WKXT-LD	D33	LD	LIC	Knoxville, TN	BLANK0000178491	208.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

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Channel: D32
Mask: Full Service
Latitude: 34 18 46.80 N (NAD83)
Longitude: 82 56 25.50 W
Height AMSL: 358.4 m
HAAT: 139.4 m
Peak ERP: 15.0 kW
Antenna: Dielectric-TUM-C3-02/06M-T (ID 1008463) 65.0 deg
Elev Pattn: Generic
Elec Tilt: 0.50

50.5 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	5.68 kW	131.6 m	41.1 km
45.0	8.33	150.3	44.3
90.0	7.03	175.6	45.1
135.0	7.91	168.8	45.3
180.0	8.57	147.4	44.3
225.0	0.282	126.6	25.3
270.0	0.207	104.3	21.8
315.0	10.2	110.9	42.5

Distance to Canadian border: 818.8 km

Distance to Mexican border: 1630.0 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 253.5 degrees Distance: 171.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 294.7 degrees Distance: 2068.9 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km

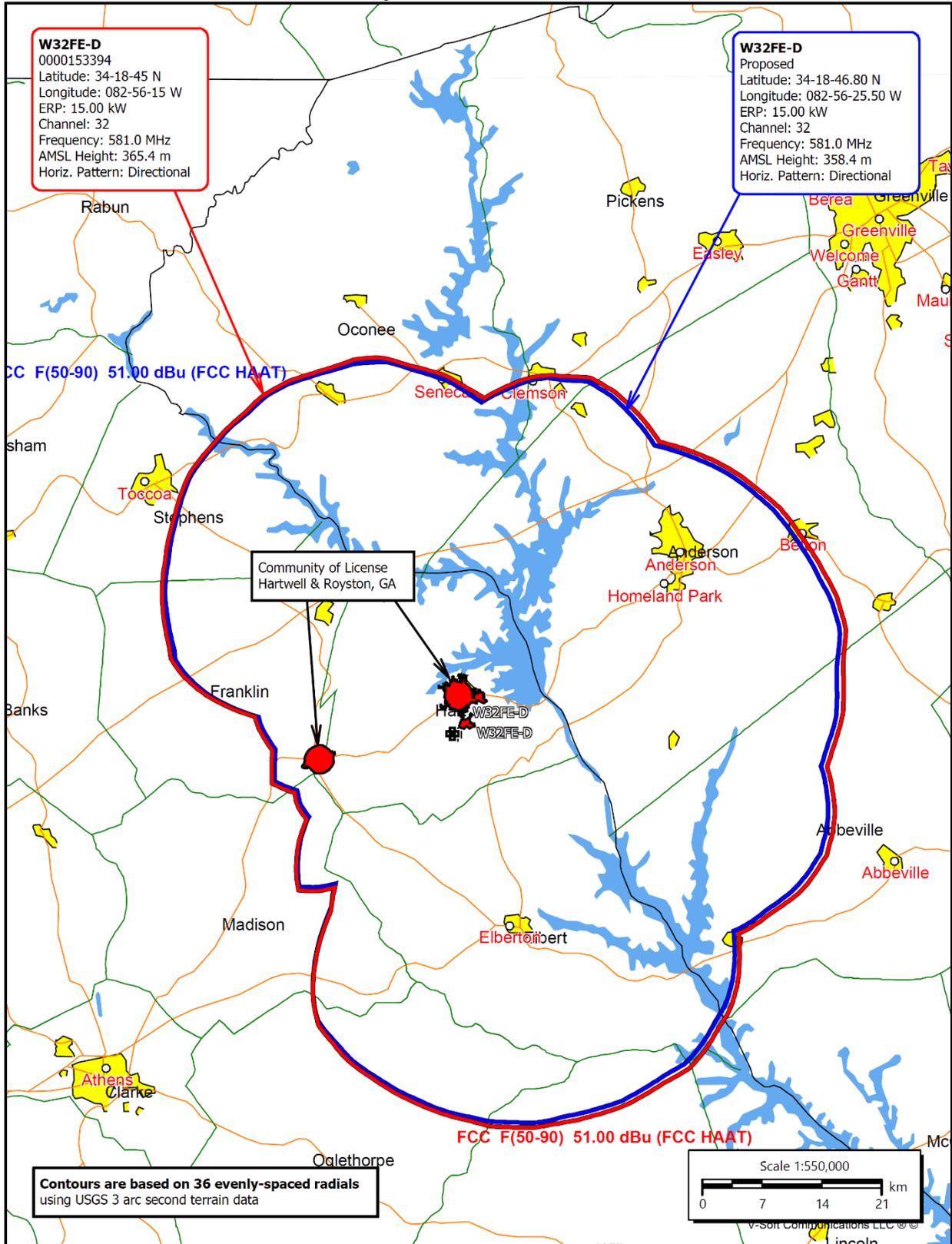
Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Proposal causes 0.20% interference to BLANK0000153268 LIC scenario 1
Proposal causes 0.41% interference to BLANK0000074959 LIC scenario 1
Proposal causes 0.01% interference to BLANK0000146859 LIC scenario 1
Proposal causes 0.07% interference to BLANK0000119355 LIC scenario 1

---- Below is IX received by proposal W32FE-D Corrected ----

Proposal receives 3.33% interference from scenario 1
No IX check failures found.

APPENDIX B – Licensed and Proposed Contour



APPENDIX C – Far Field Exposure to RF Emissions

