Kessler and Gehman Associates
Consultants • Broadcast • Wireless

DIGITAL TV TRANSLATOR CONSTRUCTION PERMIT MINOR MODIFICATION APPLICATION

CALL SIGN: W28EZ-D
FACILITY ID: 182289
LOCATION: Gainesville, FL

Prepared For:

SagamoreHill of Tennessee, LLC
525 Blackburn Drive
Augusta, GA 30907

Prepared By:

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1.0 INTRODUCTION AND SCOPE OF WORK

SagamoreHill of Tennessee, LLC is the licensee of a digital low power television translator broadcast station having call sign W28EZ-D, and facility ID 182289. W28EZ-D has a construction permit[1] to operate on channel 28 using an directional antenna with an ERP of 3 kW at a height of 124.4m AMSL on antenna structure number 1054467. It is proposed to modify the construction permit to

- replace the Micro Communications Inc. 955312, directional antenna with a Sangamo 9700n omni-directional antenna,
- decrease the ERP from 3kW to 450W,
- decrease the antenna height AMSL by 80.5m, and
- change the transmitter site from
  - 29-25-09.1 N 82-32-56.9 W (NAD 83) to
  - 29-35-29.0 N 82-22-11.1 W (NAD 83)
- change the emission mask from Full Service to Simple

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.: BNPDTL-20090825AOQ

3.0 TRANSMITTER LOCATION AND TOWER REGISTRATION

It is proposed to move W28EZ-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 W28EZ-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.

The resulting RFR study in Appendix C demonstrates that the peak exposure is 14.5% of the most restrictive permissible exposure threshold. Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites, 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 greater than 5% of the most permissible exposure at any location 2 meters above the ground, it is considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of the proposed facility must be considered; however, in this instance there are no additional contributors. As proposed, the facility is compliant with the FCC limits for human exposure to RF radiation 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 February 14, 2023.

Kessler and Gehman Associates, Inc.

Ryan Wilhour
Consulting Engineer

APPENDIX A – TVStudy V2.2.5 Allocation Analysis

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Study created: 2023.02.14 09:03:22

Study build station data: LMS TV 2023-02-14

    Proposal: W28EZ-D D28 LD CP GAINESVILLE, FL
 File number: W28EZ Proposed
 Facility ID: 182289
Station data: User record
   Record ID: 1211
     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:
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IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WOCD-LD	D27	LD	LIC	DUNNELLON, FL	BLANK0000154197	58.6 km
No	WOCD-LD	D27	LD	LIC	DUNNELLON, FL	BLANK0000204523	54.9
No	WOCD-LD	D27	LD	CP	DUNNELLON, FL	BLANK0000188883	54.9
No	WOCD-LD	N27-	TX	LIC	DUNNELLON, FL	BLTTL20090331AEX	60.6
Yes	WYME-CD	D27	DC	LIC	GAINESVILLE, FL	BLANK0000098965	20.1
No	WWRJ-LD	D27	LD	LIC	JACKSONVILLE, FL	BLANK0000149999	104.5
No	WWRJ-LD	D27	LD	CP	JACKSONVILLE, FL	BLANK0000150180	108.7
No	WWRJ-LD	N27-	TX	LIC	JACKSONVILLE, FL	BLTTL20140115AAF	104.5
No	WRDQ	D27	DT	LIC	ORLANDO, FL	BLANK0000149085	171.0
No	WTXL-TV	D27	DT	LIC	TALLAHASSEE, FL	BLCDT20090217ABY	194.9
No	WTBT-LD	D27	LD	LIC	TAMPA, FL	BLANK0000179693	194.1
No	W28FD-D	D28	LD	LIC	GREENVILLE, FL	BLANK0000198523	129.7
No	WHFT-TV	D28	DT	LIC	MIAMI, FL	BLANK0000071957	454.5
No	WZVN-TV	D28	DT	LIC	NAPLES, FL	BLANK0000107164	313.4
No	WRBW	D28	DT	LIC	ORLANDO, FL	BLANK0000143935	166.1
No	WFSG	D28	DT	LIC	PANAMA CITY, FL	BLANK0000064507	352.9
No	WSST-LD	D28	LD	LIC	ALBANY, GA	BLANK0000169383	290.3
No	WJBF	D28	DT	LIC	AUGUSTA, GA	BLANK0000116201	427.0
No	W28EU-D	D28	LD	LIC	MACON, GA	BLANK0000112812	412.8
No	WXPX-TV	D29	DT	LIC	BRADENTON, FL	BLANK0000105367	197.2
No	WTBZ-LD	N29z	TX	LIC	GAINESVILLE, FL	BLTTL20050907ABX	25.9
No	WGFL	D29	DT	LIC	HIGH SPRINGS, FL	BLANK0000100460	20.1
No	WSWF-LD	D29	LD	LIC	ORLANDO, FL	BLANK0000106247	158.6
No	WQXT-CD	D29	DC	LIC	ST. AUGUSTINE, FL	BLANK0000098976	101.4
No	W29FO-D	D29	LD	CP	TALLAHASSEE, FL	BNPDTL20090825AMR	195.9
No	WFXL	D29	DT	CP	ALBANY, GA	BLANK0000150485	240.5

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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: D28
       Mask: Simple
   Latitude:  29 35 29.00 N (NAD83)
  Longitude:  82 22 11.10 W
Height AMSL: 43.9 m
       HAAT: 16.4 m
   Peak ERP: 0.450 kW
    Antenna: Omnidirectional
Elev Pattrn: Generic

50.1 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg  0.450 kW     2.3 m   14.4 km
 45.0      0.450        8.8     14.4
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 90.0      0.450       23.9     14.4
135.0      0.450       18.5     14.4
180.0      0.450       21.3     14.4
225.0      0.450       23.2     14.4
270.0      0.450       21.2     14.4
315.0      0.450       12.3     14.4

Distance to Canadian border: 1343.3 km

Distance to Mexican border: 1485.4 km

Conditions at FCC monitoring station: Vero Beach FL
Bearing: 142.1 degrees   Distance: 278.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 305.6 degrees   Distance: 2380.3 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 0.03% interference to BLANK0000098965 LIC scenario 1

---- Below is IX received by proposal W28EZ Proposed ----

Proposal receives 5.09% interference from scenario 1
No IX check failures found.
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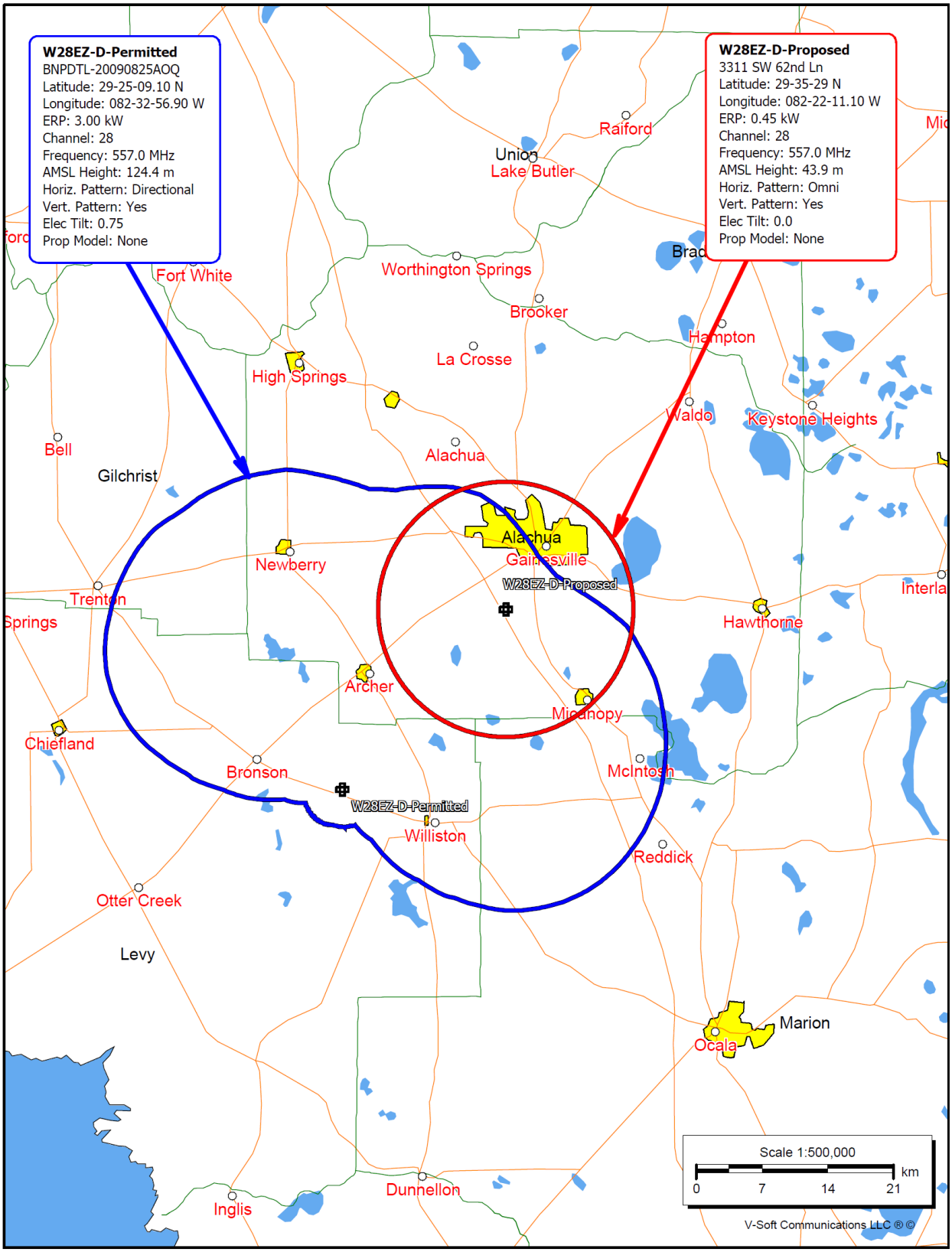
APPENDIX B – 51dBμ F(50,90) Permitted and Proposed Contour



APPENDIX C – Far Field Exposure to RF Emissions