

AZURE MEDIA, LLC.

Form 301 Application

**For Minor Modification of Construction Permit for WGAY at Sugarloaf Key, Florida
Has Channel 289C3 - Requests Channel 289A with 0.5 kW ERP (H-only) at 11 meters HAAT**

Engineering Statement

1. Summary

This application proposes a one-step class downgrade on Channel 289 from Class C3 to Class A at Sugarloaf Key, FL with change in antenna location, height, and ERP in order to facilitate expeditious construction. The underlying Construction Permit (attached hereto) expires at 3 AM on August 16, 2015. Therefore, expedited processing is respectfully requested in order to promptly commence service and prevent expiration of the construction permit, which would result in unknown and perhaps extensive delays before any service would be provided to the public on this FM channel.

2. 73.207 Allocation Situation

The proposed new antenna site serves as the allotment reference and is fully spaced under Section 73.207 to all known domestic and foreign facilities and applications. (Note: Construction Permit for WRZA-LP on Channel 236LP100 is believed to have expired unbuilt. If that is not the case, the applicant will cooperate with WRZA-LP as required by the Commission's Rules.)

3. Community Coverage

The proposed 70 dBu service contour encompasses in excess of 90% of the inhabited areas of Sugarloaf Key, and thus in excess of 90% of the population, as shown in Figure 1 and 2.

4. Environmental Impact

The applicant proposes to mount its antenna with the center of radiation 10 meters above ground level in a secluded, privately owned area that is inaccessible to the general public. Therefore, this proposal will have no environmental impact other than RFR exposure.

Compliance with the uncontrolled/general population RFR limit was determined by use of RF Worksheet #1. By this method the maximum exposure is 26.1% of the limit, as illustrated in Figure 3. The OET FM Model program was then employed as an additional method to ascertain the level of uncontrolled RFR to which the general public could be exposed. As shown in Figure 4, the maximum exposure level by this method was found to be 72.42 uW/cm², or 36.21% of the permissible limit, at a distance of 4.6 meters from the antenna. The site and mounting pole, both inaccessible to the general public, will be posted with RFR warning signs. The applicant will reduce power or cease operation as necessary to protect persons having access to the site, mounting structure, or antenna from RFR exposure in excess of FCC guidelines.

Respectfully submitted,

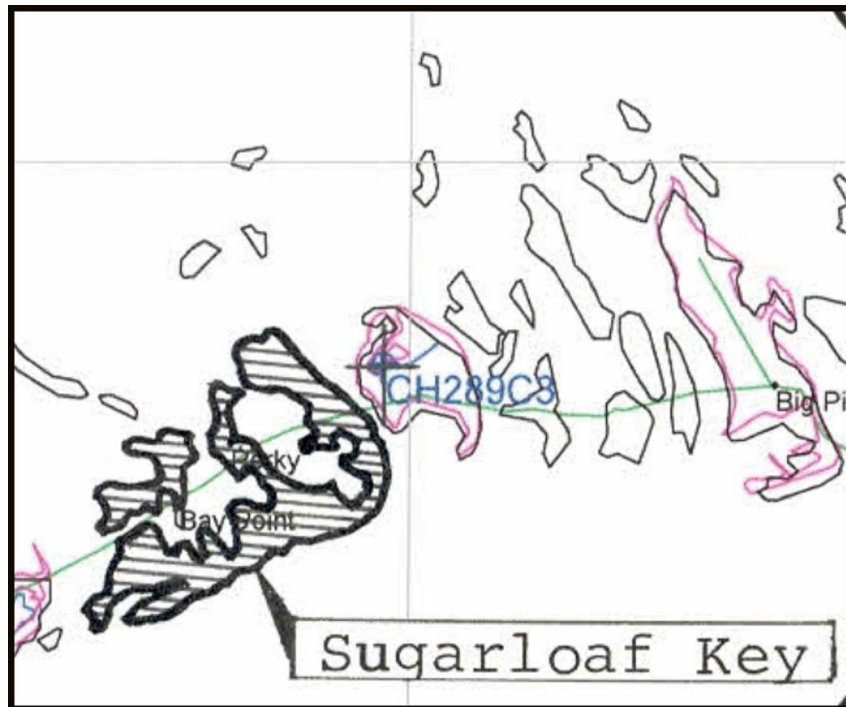
A handwritten signature in black ink, appearing to read 'Dennis Jackson', with a stylized flourish at the end.

Dennis Jackson
Technical Consultant

July 24, 2015

Figure 1 – 70 dBu Coverage of Sugarloaf Key

Below: Boundary of Sugarloaf Key from Original Application for Construction Permit



Below: 70 dBu Coverage of Inhabited Areas and Population Exceeds 90%:



Figure 2 – Aerial View of Uninhabited Areas of Community of License

70 dBu service contour reaches virtually all inhabited areas within the Community of License. It only misses very small inhabited portions, and roads through an uninhabited natural areas.
(Compare to Figure 1 for precise contour location.)



Determination of RFR Exposure Using RF Worksheet 1

Maximum RFR exposure as determined by this method is 26.1% of the Maximum Permissible Exposure level for the general public.

The site is inaccessible to the general public and will be posted with RFR warning signs.

RF WORKSHEET #1 - FM (including translators & boosters)

PLEASE COPY BEFORE USING. THE DETERMINATION OF COMPLIANCE MAY INVOLVE REPEATED CALCULATIONS. IF LOCATED ON A MULTIPLE FM USER TOWER, PLEASE COMPLETE RF WORKSHEET 1A BEFORE PROCEEDING.

EFFECTIVE RADIATION CENTER HEIGHT

Enter proposed "Height of radiation center above ground" OR as listed in line 1 10 m (1)

Is antenna supporting structure located on the roof of a building? (check one) ☐ Yes ☒ No (2)

If line 2 is "yes," enter the building height measured at the base of the antenna

If line 2 is "no," enter "0" in line 3 0 m (3)

Subtract line (3) from line (1) 10 m (4)

Subtract the value 2.0 from line (4) 8 m (5)

TOTAL EFFECTIVE RADIATED POWER

(If "beam tilt" is utilized, list maximum values)

List Effective Radiated Power in the Horizontal Plane. 0.5 kW

List Effective Radiated Power in the Vertical Plane 0 kW

Add Lines (6) and (7) OR list value from Line 2 in Worksheet 1A 0.5 kW (8)

PERCENTAGE OF FCC RF LIMIT(S) FOR MAXIMUM PERMISSIBLE EXPOSURE

Multiply Line (8) by 33.41 16.71 (9)

Multiply the value listed in line (5) by itself 64 (10)

Divide Line (9) by Line (10) 0.261 (11)

Multiply Line (11) by (100) 26.1 % (12)

DETERMINATION OF COMPLIANCE WITH CONTROLLED/OCCUPATIONAL LIMIT

Does Line (12) exceed 100% ☐ Yes ☒ No (13)

Figure 3 – FM Model Determination of RFR Exposure

Maximum RFR exposure determined by this method is 72.42 $\mu\text{W}/\text{cm}^2$

at 4.6 meters from the base of the antenna mounting structure.

This is only 36.21% of the Maximum Permissible Exposure level for the general public.

The site is inaccessible to the general public and will be posted with RFR warning signs.

