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Federal Communications Commission
Office of the Secretary

By Hand Delivery

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: WGCU-FM, Fort Myers, Florida, Facility ID No. 69042
Request for Experimental Authority to Operate with
Asymmetrical Hybrid Digital Sideband Power

Dear Ms. Dortch:

On behalf of the Florida Gulf Coast University Board of Trustees ("FGCU"), licensee of noncommercial educational FM radio station WGCU-FM, Fort Myers, Florida, and pursuant to Section 5.203 of the Commission's rules, 47 C.F.R. § 5.203, this letter respectfully requests experimental authority for one year to operate WGCU-FM full-time with asymmetrical hybrid digital sideband power as set forth in the attached Technical Statement of du Triel, Lundin & Rackley, Inc. FGCU respectfully submits that the public interest will be well served by the requested experimental authorization by permitting FGCU to obtain experience and provide improved service to its local community with IBOC operation including asymmetrical power levels in the digital sidebands.

FGCU hereby certifies that neither FGCU nor any party to this application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862. FGCU is a noncommercial educational licensee and operates WGCU-FM on a noncommercial educational basis. Moreover, FGCU qualifies as a governmental entity. The licensee is therefore exempt from FCC filing fee and regulatory fee requirements for WGCU-FM pursuant to Sections 1.1116 and 1.1162 of the Commission's rules. Please direct any questions regarding this matter to this office.

Sincerely,

Derek Teslik
Counsel to Florida Gulf Coast University Board of Trustees

TECHNICAL STATEMENT
IN SUPPORT OF REQUEST FOR EXPERIMENTAL AUTHORIZATION
FOR ASYMMETRICAL SIDEBAND OPERATION
-10 DBC/-14 DBC USB/LSB DIGITAL POWER
FM BROADCAST STATION WGCU-FM
FORT MYERS, FLORIDA
CHANNEL 211C1

This Technical Statement was prepared on behalf of FM Broadcast Station WGCU-FM, Fort Myers, Florida, in support of a request for Experimental Authorization for asymmetrical sideband operation. The request is to authorize testing with -10 dBc, upper sideband (USB), and -14 dBc, lower sideband (LSB), digital IBOC emissions. WGCU-FM is currently authorized digital IBOC emissions for -14 dBc with symmetric sideband power levels. See FCC File No. BDNED-20120420ABO.

1. The applicant requests experimental authorization for -10 dBc/-14 dBc USB/LSB digital power using MP1 mode of the Ibiquity IBOC standard. As demonstrated at Figure 1 herein, the WGCU-FM facility meets the contour overlap requirements for protection of stations affected by the USB on Channel 212.* Figure 2 is a tabulation of all the first-adjacent channel stations on Channel 212 within 225 km that were considered in the analysis.

2. The engineering contact information for WGCU-FM is as follows:

Kevin Trueblood
Associate General Manager, Technology & Operations
10501 FGCU Blvd. South
Fort Myers, FL 33965-6565
239-590-2380
ktrueblood@wgcu.org

* See FCC *Order*, MM Docket 99-325, Released: January 29, 2010, at para. 20.

3. The station proposes asymmetrical digital IBOC operation with common amplification using its main transmitting antenna. The antenna will operate with a digital effective radiated power (ERP) of 5.0 kW (USB) and 2.0 kW (LSB).

4. Use of MP1 service mode and -10 dBc/-14 dBc USB/LSB asymmetric digital sideband power levels are to be employed.

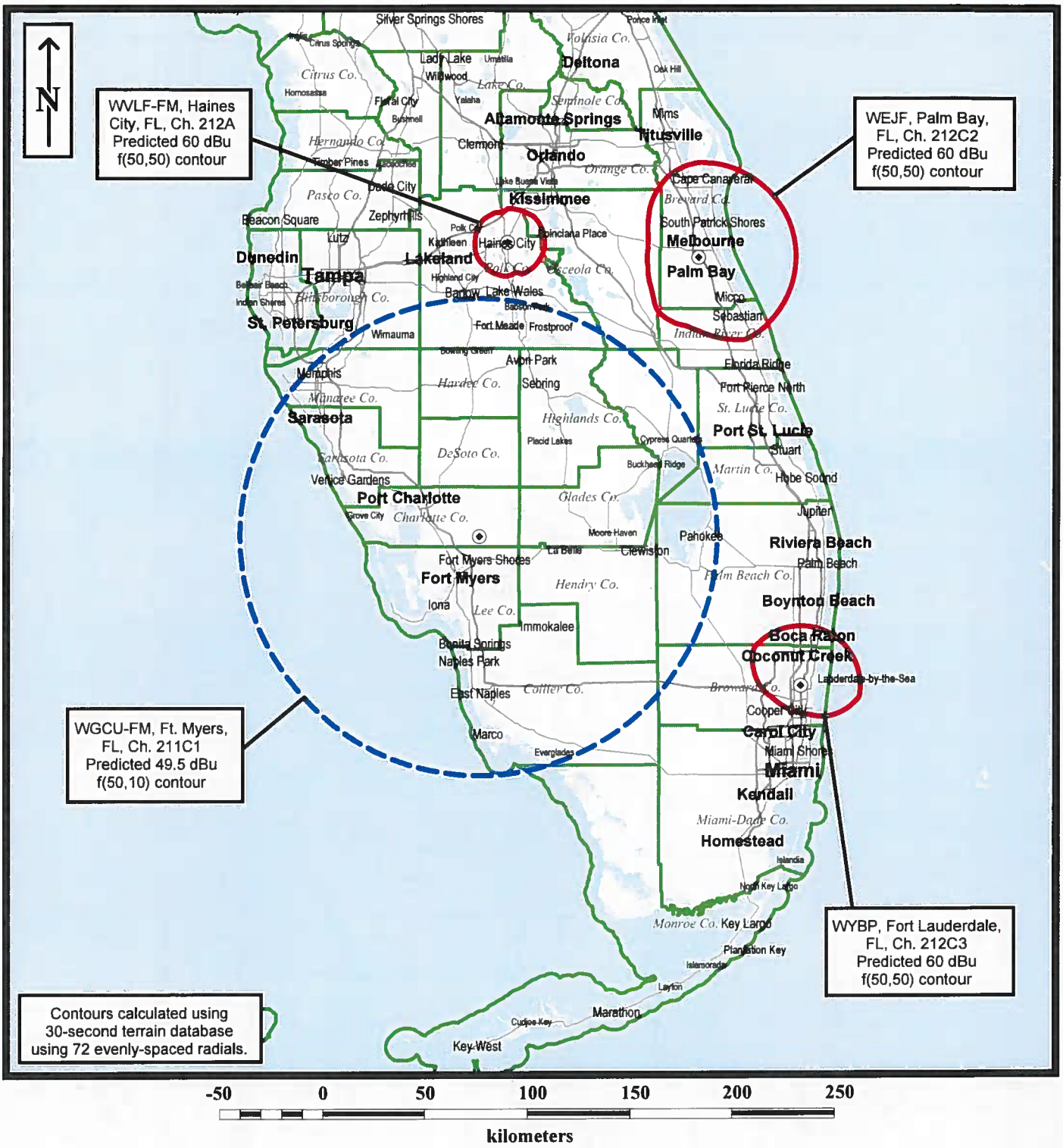
5. According to the *National Radio Systems Committee, NRSC-G202, 'FM IBOC Total Digital Sideband Power for Various Configurations*,' the total integrated power for -10 dBc/-14 dBc asymmetrical side-band operation in service mode MP1 is -11.6 dBc, which is equivalent to total integrated digital power of 7 kW. The proposed total digital transmitter power output is 1.48 kW. Considering all system losses and antenna gain, the nominal non-directional total integrated digital ERP is calculated to be 7 kW. The analog TPO is 21 kW, which results in a nominal analog ERP of 100 kW.

6. The applicant certifies that the proposed digital operation will comply with the latest transmission system specifications of the Ibiquity HD Radio System.

Louis R. du Treil, Jr.

du Treil, Lundin & Rackley, Inc.
3135 Southgate Circle
Sarasota, Florida 34239

February 26, 2019



WGCU-FM -10 dBc IBOC INTERFERENCE ANALYSIS MAP FOR UPPER SIDEBAND (CHANNEL 212) PROTECTION

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

FM Inquiry

FM BROADCAST STATIONS WITHIN 225 KM OF WGCU-FM

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

Listed stations are within 225 km of the point at 026-48-54 081-45-43.

Callsign	Chan.	Freq.	Class	Service	Status	City			State	Latitude	Longitude	Distance (km)
ARN			DA	Antenna ID	Rotation	ERP (kW)	HAAT (m)	RCAMSL (m)		Rec. Type	Facility ID	Bearing (deg)
WLVF-FM	212	90.3	A	FM	LIC	HAINES CITY			FL	028-06-49	081-37-23	144.55
BLED-20100201AAW			N			0.75	96	130.8		C	36500	5.39
WEJF	212	90.3	C2	FM	LIC	PALM BAY			FL	028-02-49	080-40-34	173.67
BLED-20130102AKK			D	110842	0	30	147	150		C	51316	37.79
WYBP	212	90.3	C3	FM	LIC	FORT LAUDERDALE			FL	026-09-12	080-10-12	174.84
BLED-20141002AAT			D	111352		8	94	95		C	72029	114.55

RF HAZARD STATEMENT
IN SUPPORT OF REQUEST FOR EXPERIMENTAL AUTHORIZATION
FOR ASYMMETRICAL SIDEBAND OPERATION
-10 DBC/-14 DBC USB/LSB DIGITAL POWER
FM BROADCAST STATION WGCU-FM
FORT MYERS, FLORIDA
CHANNEL 211C1

With respect to the potential for human exposure to radio frequency (RF) energy, calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF energy at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground based on the following conservative assumptions, with the following results:

Call Sign	Channel	Average ERP (kW)	Distance (m)	Relative Field Factor*	FCC Limit† (mW/cm^2)	Percentage of Limit
WGCU-FM (digital)	211 (90.1 MHz)	7.0 kW (H & V); 14 kW (Total)	247	0.3	200	0.35%

As indicated above, the exposure to RF energy at 2-m above ground level will not exceed 0.35% of the FCC limit for general population / uncontrolled exposure. Therefore, the proposal complies with the FCC limits for human exposure to RF energy and it is categorically excluded from environmental processing. The applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the tower or antenna from RF energy in excess of the FCC guidelines.

* The transmitting antenna employs an ERI rototiller transmitting antenna having 10 bays with one-wavelength spacing at 90.1 MHz. This is a worst-case estimate of the relative field factor in the downward direction for this facility.
† for general population/uncontrolled environments