Application for Extension of Experimental Authorization

NCE Station WUCF-FM, Orlando, Florida (Facility ID 69229)

Pursuant to Section 5.203 of the Commission's rules, the University of Central Florida Board of Trustees ("UCF"), licensee of noncommercial educational FM radio station WUCF-FM, Orlando, Florida, respectfully requests extension of the station's existing experimental authority for one year, up to and including May 11, 2025. This would allow WUCF-FM to continue to operate full-time with asymmetrical hybrid digital sideband power to allow testing of hybrid digital FM in-band on-channel ("IBOC") operation with these parameters.

Experimental authority was granted on May 11, 2022, in CDBS file number 20220413AAD. On April 28, 2023, this authority was extended in CDBS file number 20230406AAA and is set to expire on May 11, 2024. UCF submits that the public interest will be well served by the requested extension of experimental authority by permitting UCF to continue to obtain experience and provide improved service to its local community with IBOC operation, including asymmetrical power levels in the digital sidebands. An interim report detailing the progress of the experimental operation thus far is attached hereto.

TECHNICAL STATEMENT OF JEFFREY C. GEHMAN OF THE FIRM OF KESSLER AND GEHMAN ASSOCIATES, INC., CONSULTING ENGINEERS IN SUPPORT OF THE FILING BY UNIVERSITY OF CENTRAL FLORIDA BOARD OF TRUSTEES REGARDING THE EXTENSION OF THE EXPERIMENTAL AUTHORIZATION TO OPERATE ITS STATION WUCF-FM (FACILITY ID 69229) CHANNEL 210C3 (89.9 MHz) WITH ASYMMETRICAL IBOC HD RADIO SIDEBANDS

This Technical Statement has been prepared in support of the filing by University of Central Florida Board of Trustees ("UCFBT") to extend its experimental authorization to operate asymmetrical FM HD sidebands at its Channel 210C3 (89.9 MHz) Orlando, FL station, WUCF-FM (facility ID 69229).

WUCF-FM is licensed for analog FM operation on Channel 210C3 (89.9 MHz) with a directional transmitting antenna system producing an effective radiated power of 5.6 kW vertical (at 486 feet HAAT) / 0.36 kW horizontal (at 476 feet HAAT) with -14 dB symmetrical FM IBOC HD Radio sidebands, and has been operating with an experimental authorization to transmit asymmetrical sidebands of -14 dB lower sideband (LSB) and -10 dB upper sideband (USB) since 2017 (see attached).

The implementation of IBOC HD Radio allows UCFBT to not only broadcast in high fidelity HD the same programming it broadcasts on its analog FM channel, but also allows broadcast of its Latin Jazz programming in high fidelity on its HD2 subchannel, which would otherwise not be possible.

Field campaigns have demonstrated that experimental operation of WUCF-FM's higher powered -10 dB USB has consistently resulted in a significant and desirable reception improvement which more closely replicates WUCF-FM's analog reception. And since UCFBT has received no complaints from listeners, neighboring stations, or others, it is believed that extension of the experimental authorization is a public benefit and is therefore justified.

This technical statement has been prepared by Jeffrey C. Gehman who is an associate of Kessler and Gehman Associates, Inc. with offices in Gainesville, Florida and has been working in the field of radio and television broadcast consulting since 1986. He states under penalty of perjury that the information contained in this statement is true and correct to the best of his knowledge and belief.

KESSLER AND GEHMAN ASSOCIATES, INC.

Jeffrey C. Gehman
Engineering Associate

March 12, 2024

Gray Miller Persh LLP
Attorneys at Law
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April 26, 2018

Accepted / Filed

APR 26 2018

Federal Communications Commission
Office of the Secretary

Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554
ATTN: Media Bureau, Audio Division

Re: Request for Extension of Experimental Authorization
University of Central Florida
NCE Station WUCF-FM, Orlando, FL (Fac. ID 69229)

Dear Ms. Dortch:

On behalf of the University of Central Florida ("UCF"), licensee of noncommercial educational radio station WUCF-FM, Orlando, Florida, we respectfully request a twelve (12) month extension, up to and including May 15, 2019, for the experimental authorization previously granted to allow testing of hybrid digital FM in-band on-channel ("IBOC") operation with asymmetrical power levels in the digital sidebands. *See* FCC File No. 20170501AAJ. This request is submitted pursuant to Section 5.203, *et. seq.*, of the FCC's Rules, 47 C.F.R. §5.203.

UCF originally applied on May 1, 2017 for this experimental authorization, and the FCC granted the experimental authorization by letter dated May 15, 2017 (copy enclosed). In connection with this request for extension of the experimental authorization, UCF provides the enclosed interim report detailing progress, methodology employed and the results obtained in connection with WUCF-FM's authorized IBOC operation with asymmetrical power levels in the digital sidebands.

UCF respectfully submits that the public interest will be well served by the requested extension for WUCF-FM's continued experimental authorization by permitting UCF to obtain additional experience and continue to provide improved service to its local community with IBOC operation including asymmetrical power levels in the digital sidebands.

UCF hereby certifies that UCF, nor any party to the application, is subject to denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862. Should any questions arise concerning this matter, kindly contact this office.

Sincerely,

Barry Persh

Barry S. Persh
Counsel for UCF

Enclosures
cc: Susan N. Crawford, FCC (Susan.Crawford@fcc.gov)

University of Central Florida

WUCF-FM 89.9 "Jazz & More"

April 25, 2018

Mr. Rodolfo F. Bonacci
Assistant Division Chief
Audio Division, Media Bureau
Federal Communications Commission

Re: Experimental Authorization

Dear Mr. Bonacci:

The University of Central Florida (WUCF-FM) originally applied on May 1, 2017 for experimental authorization for asymmetrical IBOC sidebands. The FCC granted this request for experimental authorization by letter dated May 15, 2017 (copy enclosed). WUCF-FM operates its IBOC carriers at -14dBc[3] for the lower sideband and -10dBc for the upper sideband. WUCF-FM has operated its IBOC carriers in compliance with the grant since May 15, 2017. The parameters are as follows:

Analog ERP:	0.36 kilowatts (kW)-H, 5.6 kW-V5
Digital LSB ERP:[6]	0.0140 kW-H, 0.225 kW-V
Digital USB ERP:	0.036 kW-H, 0.56 kW-V.

There have been no complaints of interference received by listeners nor other broadcasters as a result of operating under the parameters authorized in the experimental grant. The WUCF-FM engineering team has determined a value to the asymmetrical operation of the IBOC sidebands as remarkably improved, consistent reception within their service area. WUCF-FM desires to continue to experimental operation to further evaluate asymmetrical IBOC sideband operation.

Thank you for your consideration,

Bruce Doerle
Chief Engineer
WUCF FM

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FEDERAL COMMUNICATIONS COMMISSION
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MEDIA BUREAU
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APPLICATION STATUS: (202) 418-2730
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PROCESSING ENGINEER: Susan N. Crawford
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INTERNET ADDRESS: Susan.Crawford@fcc.gov

May 15, 2017

Bruce Doerle
Director of Engineering, WUCF-FM
University of Central Florida
PO Box 162199
Orlando, FL 32816

Re: WUCF-FM, Orlando, Florida
University of Central Florida
Facility ID No. 69229
File No. 20170501AAJ

Request for Experimental Authority

Dear Mr. Doerle:

The staff has under consideration the May 1, 2017, request for experimental authority submitted on behalf of the University of Central Florida (UCF), licensee of noncommercial educational FM station WUCF-FM, Orlando, Florida,[1] to permit WUCF-FM to conduct testing of hybrid digital FM in-band on-channel (IBOC) operation with asymmetric power levels in the digital sidebands. The experimental authority is requested pursuant to Section 5.203 of the Commission's Rules.[2]

The request states that UCF is seeking experimental authority to operate WUCF-FM with lower sideband (LSB) digital effective radiated power (ERP) of -14 dBc[3] and upper sideband (USB) digital ERP of -10 dBc.

Our review indicates that the proposed WUCF-FM digital operation complies with the contour nonoverlap and other technical requirements of the Media Bureau's *Order* adopted January 27, 2010, in MM Docket No. 99-325[4], and the request for experimental authority meets

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[1] File Number BMLED-20140515ADY.

[2] 47 CFR § 5.203 (Section 5.203).

[3] Decibels relative to analog carrier.

[4] *Digital Audio Broadcasting Systems And Their Impact on the Terrestrial Radio Broadcast Service,* MM Docket No. 99-325, Order, 25 FCC Rcd 1182 (MB 2010) (Order).

the requirements for experimental operations set forth in Section 5.203. Accordingly, the request is HEREBY GRANTED. WUCF-FM may operate with increased digital ERP as follows:

Analog ERP:	0.36 kilowatts (kW)-H, 5.6 kW-V[5]
Digital LSB ERP:[6]	0.0140 kW-H, 0.225 kW-V
Digital USB ERP:	0.036 kW-H, 0.56 kW-V.

This experimental authority expires on **May 15, 2018**. This authority is specifically conditioned on the lack of objectionable interference. A report detailing the methodology employed and the results obtained must be submitted within 90 days following the conclusion of the experimental operation. Any request for extension of this experimental authority should be filed at least 30 days prior to the expiration date of the authority. Additionally, an extension request must include an interim version of the aforementioned report detailing the progress of the experimental operation as of the filing date of the request.

Sincerely,

Susan N. Crawford
Senior Engineer
Audio Division
Media Bureau

[5] All ERP values rounded in accordance with 47 CFR § 73.212(a).

[6] Digital ERP values shown are for MP1 service mode. The licensee must adjust the station's asymmetric digital sideband ERP values in accordance with NRSC guideline "NRSC-G202, FM IBOC Total Digital Sideband Power for Various Configurations" (September 2010) if operating using a service mode other than MP1.