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Please reply to MELODIE A. VIRTUE
 mvirtue@gsblaw.com TEL EXT 2527

January 3, 2017

VIA HAND DELIVERY

Marlene H. Dortch, Secretary
 Federal Communications Commission
 Office of the Secretary
 445 12th Street, S.W.
 Room TW-A325
 Washington, DC 20554

Accepted / Filed

Our File No. 22274-00100

JAN - 3 2017

**Federal Communications Commission
 Office of the Secretary**

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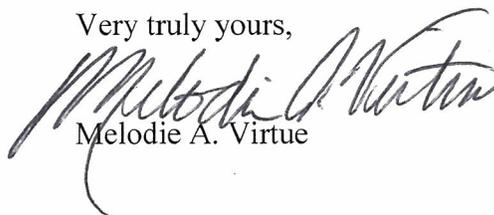
Re: ***Request for Extension of Single Sideband Suppressed Carrier
 Broadcast Experimental Authorization***
 Radio Station KOJB(FM-NCE), Cass Lake, MN
 Facility ID No. 173472
Leech Lake Band of Ojibwe

Dear Ms. Dortch:

Transmitted herewith on behalf of Leech Lake Band of Ojibwe, licensee of Station KOJB(FM), Cass Lake, Minnesota, pursuant to FCC Rule 5.203, is a request for a one-year extension of its "broadcast experimental authorization" for testing of single sideband suppressed carrier ("SSBSC") modulation of the stereophonic subcarrier in the multiplex baseband signal on KOJB ("Request"). The initial authorization was granted by letter dated September 9, 2013, from Susan N. Crawford, Assistant Chief of the Audio Division of the Media Bureau ("Initial Experimental Authorization"). The authorization was most recently extended by letter from Ms. Crawford dated January 28, 2016 (the "Extension Letter"). A copy of the Request, the Initial Experimental Authorization, and the Extension Letter are attached along with the report from KOJB's Chief Engineer, Bob Ryan, detailing the methodology employed and the results obtained.

Should you have any questions regarding this matter, kindly communicate directly with this office.

Very truly yours,



Melodie A. Virtue

MAV:cll

Attachment

cc: Susan N. Crawford (pdf copy via email Susan.Crawford@fcc.gov)



December 29, 2016

Accepted / Filed

JAN - 3 2017

Federal Communications Commission
Office of the Secretary

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, S.W.
Room TW-A325
Washington, DC 20554

Re: ***Request for Extension of Single Sideband Suppressed Carrier
Broadcast Experimental Authorization***
Radio Station KOJB(FM-NCE), Cass Lake, MN
Facility ID No. 173472
Leech Lake Band of Ojibwe

Dear Ms. Dortch:

On behalf of Leech Lake Band of Ojibwe, licensee of Station KOJB(FM), Cass Lake, Minnesota, pursuant to FCC Rule 5.203, we hereby respectfully request a one-year extension of its "broadcast experimental authorization" initially issued in the letter dated September 9, 2013, from Susan N. Crawford, Assistant Chief, Audio Division of the Media Bureau (the "Letter"), for testing of single sideband suppressed carrier ("SSBSC") modulation of the stereophonic subcarrier in the multiplex baseband signal on KOJB. The authorization was most recently extended by letter from Ms. Crawford dated January 28, 2016 (the "Extension Letter"). A copy of the Letter and the Extension Letter are attached along with the report from KOJB's Chief Engineer, Bob Ryan, detailing the methodology employed and the results obtained.

No filing fee is required for this extension request.

Questions relating to this request may be directed to Brad Walhof, Station Manager, Radio Station KOJB, (218) 335-7252, email, Brad.Walhof@llojibwe.org.

Applicant hereby certifies that neither the applicant nor any party to the application is subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

I certify that the statements made in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith.

Respectfully submitted,

Leech Lake Band of Ojibwe



By *Faron Jackson, Sr.*
Faron Jackson, Sr.
Chairman

Attachments (3)

GSB:8351942.1



SSBSC Report 12-20-2016

On September 9, 2013 the FCC granted KOJB's request for single sideband suppressed carrier modulation experimental authority. This authority has been extended in 2014 and 2015. As of August 1 2016 KOJB has operated in the SSBSC mode for approximately 25,100 Hours. Suppression was accomplished using a Omnia 11 audio processor, a Nautel NV 7.5 solid state transmitter, and a Shively 6 bay Antenna. Approximate costs of the Omnia 11 processor, mileage, and labor were 14,500 as of 8-1-2014. Transmitter output power is 4KW with a radiated output power of 18kw. Drive and fixed location tests were accomplished with a Sangean WR-2 receiver and Alpine CD105 receiver.

The intended goal of this effort was to reduce perceived multipath of the FM channel through a reduction of occupied bandwidth and sideband pairs of the modulated carrier.

Drive testing was done in approximately 10 percent of the KOJB city grade coverage area with and without SSBSC options activated. These areas were chosen due to known and observed multipathing. In all areas there was a perceived decrease in multipathing interference. Coverage was also improved in difficult to penetrate structures. We continue to have no complaints of interoperability with radios. We continue to have no complaints of loss of audio fidelity.

We continue to have no complaints of any interference with adjacent channels. Therefore KOJB would like to request an extension of the experimental authority to operate and continue testing the SSBSC technology.

Sincerely,
Bob Ryan
Chief Engineer

A handwritten signature in black ink, appearing to read 'Bob Ryan', is written over the typed name and title.

FEDERAL COMMUNICATIONS COMMISSION
445 12th STREET, SW
WASHINGTON, DC 20554

MEDIA BUREAU
AUDIO DIVISION
APPLICATION STATUS: (202) 418-2730
HOME PAGE: www.fcc.gov/mb/audio/

PROCESSING ENGINEER: Susan N. Crawford
TELEPHONE: (202) 418-2754
GROUP FACSIMILE: (202) 418-1411
INTERNET ADDRESS: Susan.Crawford@fcc.gov

September 9, 2013

Melodie A. Virtue, Esquire
Garvey Schubert Barer
1000 Potomac Street, NW
Fifth Floor, Flour Mill Building
Washington, DC 20007-3501

Re: KOJB(FM), Cass Lake, Minnesota
Leech Lake Band of Ojibwe
Facility ID No. 173472
File No. 20130603BKB

Request for Experimental Authority

Dear Counsel:

The staff has under consideration the June 3, 2013, request for experimental authority submitted on behalf of Leech Lake Band of Ojibwe ("LLBOO"), licensee of noncommercial educational FM Station KOJB(FM), Cass Lake, Minnesota,¹ to permit Station KOJB(FM) to conduct testing of single sideband multiplex stereo transmission. The experimental authority is requested pursuant to Section 5.203 of the Commission's Rules² for a period of one year.

The request states that LLBOO is seeking experimental authority to operate Station KOJB(FM) with a technology developed by Omnia Audio known as single sideband suppressed carrier ("SSBSC") modulation of the stereo subcarrier in the FM multiplex baseband signal to test whether multipath interference can be reduced through a reduction of occupied bandwidth and sideband pairs of the modulated carrier.

The subject request for experimental authority meets the requirements for experimental operations set forth in Section 5.203.³ Accordingly, the request is HEREBY GRANTED. This experimental authority expires on **September 9, 2014**. This authority is specifically conditioned on the lack of objectionable interference. A report detailing the methodology employed and the

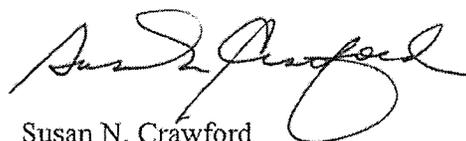
¹ File Number BLED-20110920ABY.

² 47 C.F.R. § 5.203.

³ *Id.*

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 that details the progress of the experimental operation as of the filing date of the request.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan N. Crawford". The signature is fluid and cursive, with a large loop at the end.

Susan N. Crawford
Assistant Chief
Audio Division
Media Bureau

cc: Leech Lake Band of Ojibwe

FEDERAL COMMUNICATIONS COMMISSION
445 12th STREET, SW
WASHINGTON, DC 20554

MEDIA BUREAU
AUDIO DIVISION
APPLICATION STATUS: (202) 418-2730
HOME PAGE: www.fcc.gov/media/audio/

PROCESSING ENGINEER: Susan N. Crawford
TELEPHONE: (202) 418-2754
GROUP FACSIMILE: (202) 418-1411
INTERNET ADDRESS: Susan.Crawford@fcc.gov

January 28, 2016

Melodie A. Virtue, Esq.
Garvey Schubert Barer
1000 Potomac Street, NW
Suite 200
Washington, DC 20007-3501

Re: KOJB(FM), Cass Lake, Minnesota
Leech Lake Band of Ojibwe
Facility ID No. 173472
File No. 20151228BFR

**Request for Extension of
Experimental Authority**

Dear Counsel:

The staff has under consideration the December 28, 2015, request for extension of experimental authority¹ submitted on behalf of Leech Lake Band of Ojibwe (LLBOO), licensee of noncommercial educational FM Station KOJB(FM), Cass Lake, Minnesota,² to permit Station KOJB(FM) to continue to conduct testing of single sideband multiplex stereo transmission. The experimental authority is requested pursuant to Section 5.203 of the Commission's Rules³ for a period of one year.

The request states that LLBOO is seeking further experimental authority to continue to operate Station KOJB(FM) with a technology developed by Omnia Audio known as single sideband suppressed carrier ("SSBSC") modulation of the stereo subcarrier in the FM multiplex baseband signal for further testing. In support of the extension request, LLBOO submitted an interim report detailing the progress and results of the testing undertaken during the experimental program as required by the experimental authorization. The report states that there is a perceived reduction in multipath interference and improved coverage in difficult to penetrate structures using the SSBSC technology. Additionally, LLBOO states that it has not received any reports of

¹ File No. 20151228BFR.

² File No. BLED-20110920ABY.

³ 47 CFR § 5.203 (Section 5.203).

interference or decreased audio fidelity resulting from the currently authorized Station KOJB(FM) experimental operation.⁴

Our review shows that the LLBOO request for extension of experimental authority for Station KOJB(FM) meets the requirements for experimental operations set forth in Section 5.203. Accordingly, the request is **HEREBY GRANTED**. This experimental authority expires on **January 28, 2017**. 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 further 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 report that details the progress of the experimental operation as of the filing date of the request.

Sincerely,



Susan N. Crawford
Audio Division
Media Bureau

cc: Leech Lake Band of Ojibwe

⁴ File No. 20140804AEE.