GSB

WASHINGTON, D.C. OFFICE
flour mill building
1000 potomac street nw
suite 200
washington, d.c. 20007-3501
TEL 202 965 7880 FAX 202 965 1729

OTHER OFFICES
seattle, washington
portland, oregon
new york, new york
beijing, china
GSBLAW.COM

GARVEY SCHUBERT BARER

A PROFESSIONAL SERVICE CORPORATION

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

October 1, 2018

Our File No. 22274-00100

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

Re: ***Final Report Detailing the Methodology Employed and the Results Obtained for Single Sideband Suppressed Carrier Broadcast Experimental Authorization***
Radio Station KOJB(FM-NCE), Cass Lake, MN
Facility ID No. 173472
Leech Lake Band of Ojibwe
File No. 20171229ABF

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(d), is its final report detailing the methodology employed and the results obtained regarding KOJB's Single Sideband Suppressed Carrier Broadcast Experimental Authorization that concluded on September 9, 2018.

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

Very truly yours,

Melodie A. Virtue

MAV:cll
Attachment
cc: Rodolfo Bonacci (pdf copy via email Rodolfo.Bonacci@fcc.gov)

GSB:9703496.1

KOJB 90.1 FM THE EAGLE
LEECH LAKE BAND OF OJIBWE

SSBSC Report 09-20-2018

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, 2015, 2016 and 2017 KOJB has operated in the SSBSC mode for approximately 5 years. 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 $14,500.00 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. In April 2018 KOJB suffered damage to the Omnia 11 audio processor which gave us the ability to accomplish Single Sideband Suppression. There was a noticeable increase in multipathing in difficult reception areas. The Omnia 11 processor has not been replaced due to costs. This ends our five year experimental authority. At some point in the future we would like to reapply for a new experimental authority because of the positive results we experienced with the SSBSC technology.

Sincerely,

Bob Ryan - KOJB Chief Engineer

6530 US Highway 2 NW Cass Lake, Minnesota 56633
(218) 335-4400 * Fax: (218) 335-7288 * www.kojb.org