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December 9, 2022

To: Audiofilings@fcc.gov

Re: Broadcast Station KQAC(FM-NCE), Portland, OR
Facility ID No. 59343
FRN # 0005853098
Request for Experimental Authority to Operate with
Asymmetrical Hybrid Digital Sideband Power

Dear Audio Division Staff:

On behalf of All Classical Public Media, Inc., licensee of non-commercial educational FM radio station KQAC(FM), Portland, Oregon, pursuant to FCC Rule 5.203, this letter is written to request experimental authority for one year to operate KQAC full-time with asymmetrical hybrid digital sideband power as set forth in the attached Engineering Statement of KQAC(FM) Engineering Consultant, David J. Doherty.

Enclosed is the Anti-Drug Abuse Certification of the licensee. No filing fee is required for this type of request.

Please direct any questions regarding this matter to the undersigned.

Respectfully submitted,

Melodie A. Virtue

MAV:cll
Enclosures
cc: Priscilla Lee (Priscilla.Lee@fcc.gov)

ANTI -DRUG ABUSE CERTIFICATION

The applicant certifies that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §862a, or, in the case of a non-individual applicant (e.g. corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. §1.2002(b).

[x] Yes [ ] No

Name of Applicant: SUZANNE NANCE

Signature: 

Title: PRESIDENT & CEO

Date: December 8, 2022

All Classical
PORTLAND

211 SE Caruthers Street
Suite 200
Portland, OR 97214

December 8, 2022

KQAC Experimental Authorization Request

Introduction

All Classical Public Media, Inc. ("ACPM") is the licensee of KQAC (FM), Portland, OR, FCC Facility ID # 59343.

ACPM is approaching the end of five years of operation under Experimental Authorization 20171218AAC, granted 1/9/2018, which permits KQAC to operate with asymmetrical digital sidebands of -12 dBc (lower digital sideband) and -14 dBc (upper digital sideband).

KQAC has completed over 40,000 hours of operation in the asymmetrical mode without registering a single complaint of interference.

As detailed in the annual reports, the -12 dBc operation on the lower digital sideband was found to have a significant positive impact on mobile reception.

ACPM therefore requests a new Experimental Authorization to continue operation in asymmetrical digital mode.

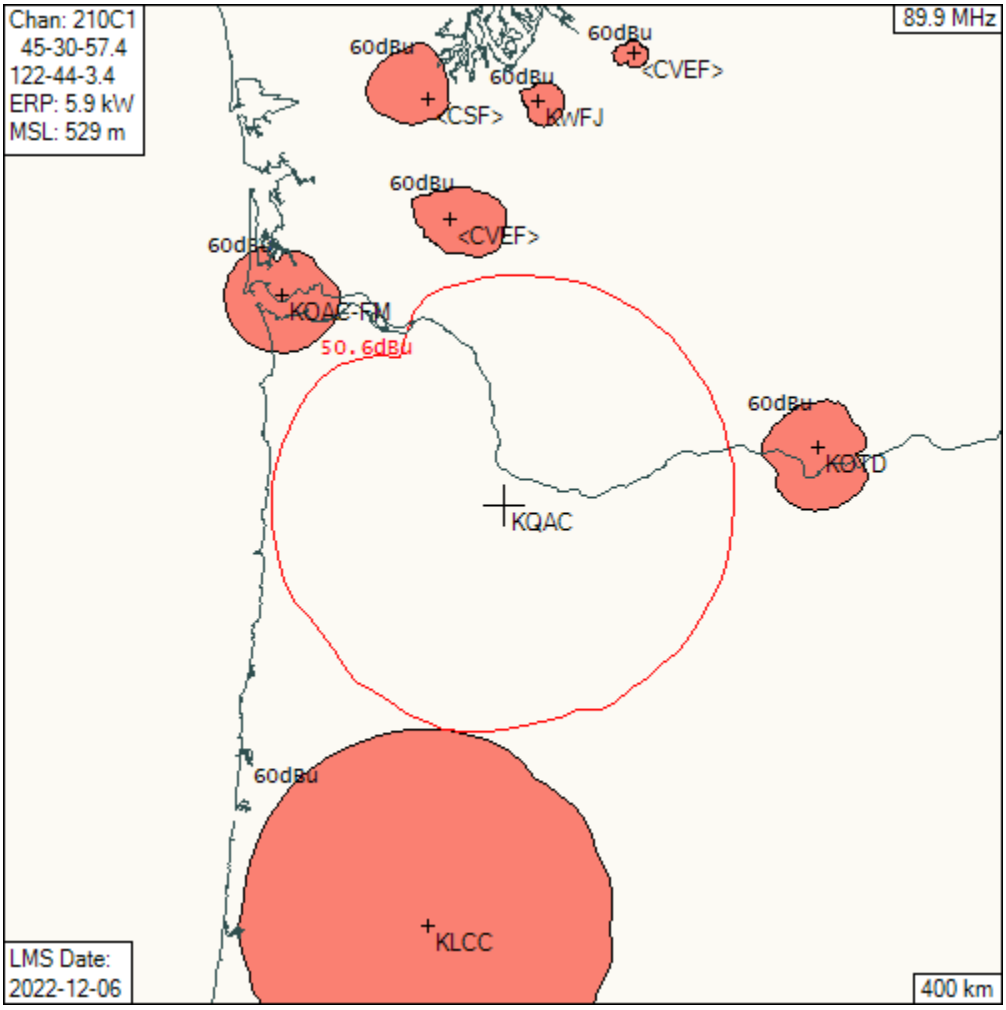
Engineering Data

KQAC operates on 89.9 MHz, Channel 210. KQAC is not a grandfathered super-power station. It is automatically permitted to operate at -14 dBc on the lower and upper digital sidebands.

This request proposes to continue the increased digital power of -12 dBc on the lower digital sideband.

Because upper digital sideband operation at the permitted -14 dBc is proposed, no showing with respect to the upper digital sideband is provided.

As shown on the contour map below, the 50.6 dBu f(50,10) contour of KQAC does not overlap the 60 dBu f(50,50) contour of any lower first-adjacent station. For 50.6 dBu f(50,10), the permissible digital ERP is -12 dBc[1].



KLCC is close. A tabulation is provided below.

[1] Per R&O DA 10-208 in MM Docket 99-325, table in paragraph 20.

KLCC Tabulation

az	eRel	kW	terht	eah	km	lat	lon	km	brg	eRel	kW	terht	eah	fs	margin
0	1	81	130.9	415.1	78.70	44 42 34.18	123 06 52.30	94.48	198.5	1	5.9	74.7	454.3	49.86	0.74
1	1	81	130.8	415.2	78.71	44 42 34.02	123 05 49.68	94.06	197.8	1	5.9	74.0	455.0	50.01	0.59
2	1	81	130.9	415.1	78.70	44 42 32.61	123 04 47.09	93.69	196.9	1	5.9	73.3	455.7	50.14	0.46
3	1	81	131.2	414.8	78.68	44 42 29.91	123 03 44.59	93.40	196.1	1	5.9	72.8	456.2	50.25	0.35
4	1	81	131.5	414.5	78.66	44 42 26.42	123 02 42.19	93.13	195.3	1	5.9	72.3	456.7	50.35	0.25
5	1	81	132.0	414.0	78.62	44 42 21.82	123 01 39.94	92.92	194.5	1	5.9	72.2	456.8	50.42	0.18
6	1	81	132.3	413.7	78.60	44 42 16.57	123 00 37.83	92.75	193.6	1	5.9	72.5	456.5	50.46	0.14
7	1	81	132.9	413.1	78.56	44 42 10.26	122 59 35.93	92.63	192.8	1	5.9	72.8	456.2	50.49	0.11
8	1	81	135.8	410.2	78.34	44 41 57.33	122 58 35.40	92.74	191.9	1	5.9	73.7	455.3	50.43	0.17
9	1	81	139.4	406.6	78.07	44 41 42.13	122 57 35.72	92.94	191.1	1	5.9	74.7	454.3	50.33	0.27
10	1	81	139.8	406.2	78.04	44 41 33.82	122 56 34.73	92.95	190.2	1	5.9	76.0	453.0	50.29	0.31
11	1	81	139.6	406.4	78.06	44 41 26.18	122 55 33.59	92.94	189.4	1	5.9	77.8	451.2	50.24	0.36
12	1	81	139.3	406.7	78.08	44 41 17.99	122 54 32.57	92.99	188.5	1	5.9	79.7	449.3	50.16	0.44
13	1	81	137.7	408.3	78.20	44 41 12.07	122 53 30.75	92.98	187.7	1	5.9	81.6	447.4	50.10	0.50
14	1	81	137.2	408.8	78.23	44 41 02.79	122 52 29.91	93.09	186.9	1	5.9	83.6	445.4	50.00	0.60
15	1	81	138.2	407.8	78.16	44 40 49.26	122 51 30.61	93.36	186.0	1	5.9	85.5	443.5	49.86	0.74

The first six columns show the calculation of distance to the KLCC 60 dBu f(50,50) contour, followed by the latitude and longitude of the point described by the azimuth and distance. The following columns show the calculation of the KQAC interfering signal, and margin below the 50.6 dBu limit for -12 dBc operation. A negative margin indicates prohibited overlap. The worst-case interfering signal is 50.49 dBu, which is 0.11 dB below the limit for -12 dBc operation.

Conclusion

ACPM requests Experimental Authority to operate KQAC with asymmetrical digital sidebands of -12 dBc (lower digital sideband) and -14 dBc (upper digital sideband).

KQAC operates with an analog Effective Radiated Power (ERP) of 5.9 kW. The proposed operation would result in digital ERPs of 0.370 kW on the lower digital sideband and 0.235 kW on the upper digital sideband.

The above is true and correct to the best of my knowledge and belief.

David J Doherty
Technical Consultant