JOB 106104A-AMD2 VER 1
CITY OF LICENSE MEDICAL LAKE, WA

CONSOLIDATED

ENGINEERING EXHIBIT

FCC Form 340 - Section VII - FM Engineering

THIN AIR COMMUNITY RADIO

BROWN BROADCAST SERVICES
INCORPORATED
Michael D. Brown 3740 S.W. Comus St. Portland, Oregon 97219-7418 503-245-6065

Consolidated Engineering Exhibit

Engineering Statement

This application is a curative minor-amendment to the original application filed by Thin Air Community Radio ("Thin Air") for a new NCE station at Medical Lake, WA, (BNPED-20071022AFM). The original application was dismissed due to short-spacing and the lack of required contour protection to a co-channel Class-C allotment at Kelowna, BC, Canada. This allotment did not appear on the FCC database available at the time of the October 2007 filing window. Nonetheless, the applicant recognizes that protection of the Kelowna allotment is required. A Petition for Reconsideration with a request for reinstatement is being filed concurrently with this minor amendment, which corrects this deficiency.

Protection of the Kelowna allotment is provided herein by a employing a directional antenna. No other technical changes from the original application, are proposed.

This application is part of MX Group 345. As of the date of this application, the status of each application is:

Thin Air Community Radio	Medical Lake, WA	201	20071022AFM	Remains MX in Group 345
Calvary Chapel of Sandpoint	Sandpoint, ID	201	20071022AXA	Remains MX in Group 345
Libby Christian Church	Libby Mt	201	20071022BUY	Remains MX in Group 345
Newport Seventh-Day Adventist Church	Newport, WA	202	20071022BFS	Dismissed 9/24/08 as part of Settlement Agreement w/Coeur D'Alene Tribe
Washington State University	Newport, WA	201	20071022BDA	Dismissed 9/24/08 as part of Settlement Agreement w/Coeur D'Alene Tribe
Spokane Public Radio, Inc.	Post Falls, ID	202	20071019AEG	Dismissed 9/24/08 as part of Settlement Agreement w/Coeur D'Alene Tribe
Coeur D'Alene Tribe	Plummer, ID	202	20071018ATG	Settlement Agreement filed 9/23/08 -- Accepted for Filing
Academy of NW Writers and Publishers	Ponderay, ID	203	10071015ALV	A Singleton, as a result of the dismissals noted above

Thus, only 3 of the original 8 applications remain part of this MX group: Thin Air, Calvary Chapel of Sandpoint, and Libby Christian Church.

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EXHIBIT 14
COMMUNITY COVERAGE

The proposed facility complies with the community coverage requirements of §73.515, as shown by the data below and Exhibit 14a. This Rule requires that at least 50% of the area **or** population of the community of license must be covered by a 60dbu signal.

Total Population of Community of License	3,758
Population within 60dbu	3,172
Population within 60dbu %	84.41%
Total Area of Community of License - km^2	9.5
Area within 60dbu - km^2	6.1
Area within 60dbu%	64.21%

Exhibit 14a - Community Coverage

Brown Broadcast Services, Inc.
Job: NCE Medical Lake_Oct18 2008 amend.fmj
Master Database: 2008_Oct_18.fmd
Lat: N48:10:50 Lon: W117:59:11 NAD-27
Scale: 1:1000000
Channel: 201 Class: C1

rfInvestigator Version 3.2.83
by rfSoftware, Inc.
Date: 11/3/2008 8:26:12 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

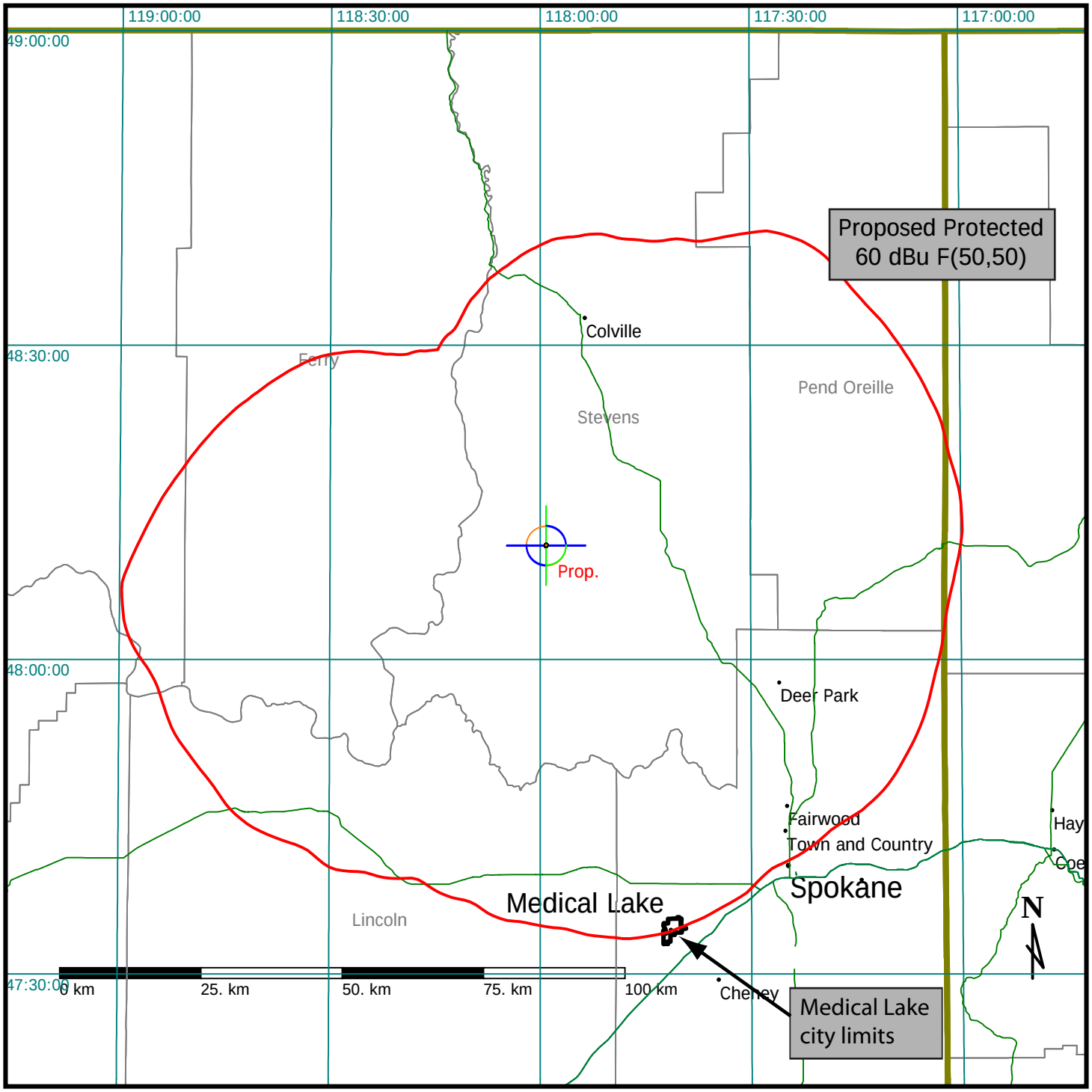

EXHIBIT 16
CONTOUR OVERLAP PROTECTION TO OTHER RESERVED-BAND STATIONS, & SPACING REQUIREMENTS TO NON-RESERVED-BAND STATIONS

The proposed facility is a curative minor-amendment to the original application filed during the October 2007 filing window. A new directional antenna is employed. All other parameters remain exactly the same. The proposed facility is completely contained within the contours of the original application.

The proposed facility meets the contour overlap requirements of §73.509 with respect to all other reserved-band stations, with the exception of the pending application 20071022AXA at Sandpoint, ID. The proposed facility remains Mutually Exclusive with Sandpoint, which in turn overlaps with 20071022BUY at Libby, Mt. These three applications are all that remain in MX Group 345.

All contour calculations were made using the methods and procedures described in 47 CFR §73.313c. FCC 30 second terrain data, with 51 terrain sample points per radial, was employed. Areas were calculated using a spline integration in one-degree increments. Population totals were calculated by testing each U.S. Census-defined block-centroid population point in the region with a point-in-polygon method. The population was summed for each point within the polygon using data from the 2000 Census.

Domestic stations considered:

ID	City	St	Chan	CL	Stat	Prefix	ARN	Dist	Min 207	Clear 207
20071022AFM	MEDICAL LAKE	WA	201	C1	APP	BNPED	20071022AFM	0	245	-245
20071022AXA	SANDPOINT	ID	201	A	APP	BNPED	20071022AXA	107.1	200	-92.9
20071022BUY	LIBBY	MT	201	A	APP	BNPED	20071022BUY	182.99	200	-17.01
20071018ATG	PLUMMER	ID	202	C3	APP	BNPED	20071018ATG	134.51	144	-9.49
KLUW	EAST WENATCHEE	WA	201	A	LIC	BLED	20080328AHK	194.04	200	-5.96
KAGU	SPOKANE	WA	204	C1	LIC	BLED	20041119ADR	84.3	82	2.3
970910MC	CLARKSTON	WA	201	A	CP	BPED	19970910MC	219.29	200	19.29
20071019AEE	OMAK	WA	203	C3	APP	BNPED	20071019AEE	102.66	76	26.66
KCWU	ELLENSBURG	WA	201	A	LIC	BLED	19990510KE	230.73	200	30.73
KMLW	MOSES LAKE	WA	202	C3	LIC	BLED	19970512KC	175.32	144	31.32
20071018ASK	MANSON	WA	202	A	APP	BNPED	20071018ASK	166.63	133	33.63
KTCV	KENNEWICK	WA	201	A	CP	BPED	20070815ABU	236.66	200	36.66
KTCV	KENNEWICK	WA	201	A	LIC	BLED	20021017ABB	236.66	200	36.66
KKZX	SPOKANE	WA	255	C	LIC	BMLH	19990302KA	83.26	41	42.26

Exhibit 16a - Co-Channel Contour Protection

Brown Broadcast Services, Inc.
Job: NCE Medical Lake_Oct18 2008 amend.fmj
Master Database: 2008_Oct_18.fmd
Lat: N48:10:50 Lon: W117:59:11 NAD-27
Scale: 1:2500000
Channel: 201 Class: C1

PROPOSED
Protected: 60dbu F(50,50)
Interfering: 40dbu F(50,10)
AFFECTED
Protected: 60dbu F(50,50)
Interfering: 40dbu F(50,10)

rfInvestigator Version 3.2.83
by rfSoftware, Inc.
Date: 11/3/2008 8:49:50 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

Not shown: contours of 20071022BUY and 20071022AXA, which remain part of MX Group 345, along with this amended proposal

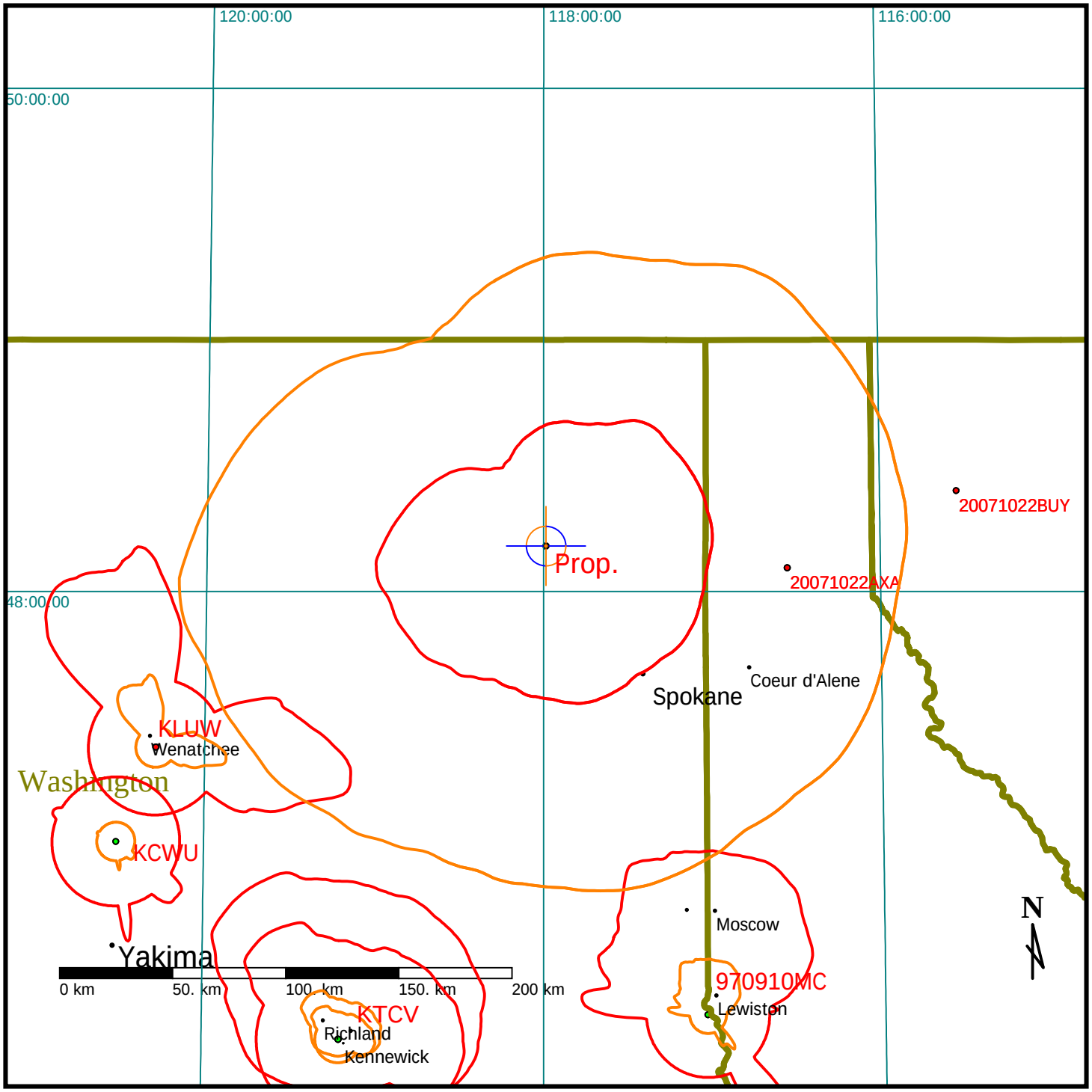

Exhibit 16b - Co-Channel MX Stations

Brown Broadcast Services, Inc.
Job: NCE Medical Lake_Oct18 2008 amend.fmj
Master Database: 2008_Oct_18.fmd
Lat: N48:10:50 Lon: W117:59:11 NAD-27
Scale: 1:2500000
Channel: 201 Class: C1

PROPOSED
Protected: 60dbu F(50,50)
Interfering: 40dbu F(50,10)
AFFECTED
Protected: 60dbu F(50,50)
Interfering: 40dbu F(50,10)

rfInvestigator Version 3.2.83
by rfSoftware, Inc.
Date: 11/3/2008 8:57:43 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

These three stations remain part of MX Group 345. This amended proposal does not increase or decrease the MX overlap with 20071022AXA.

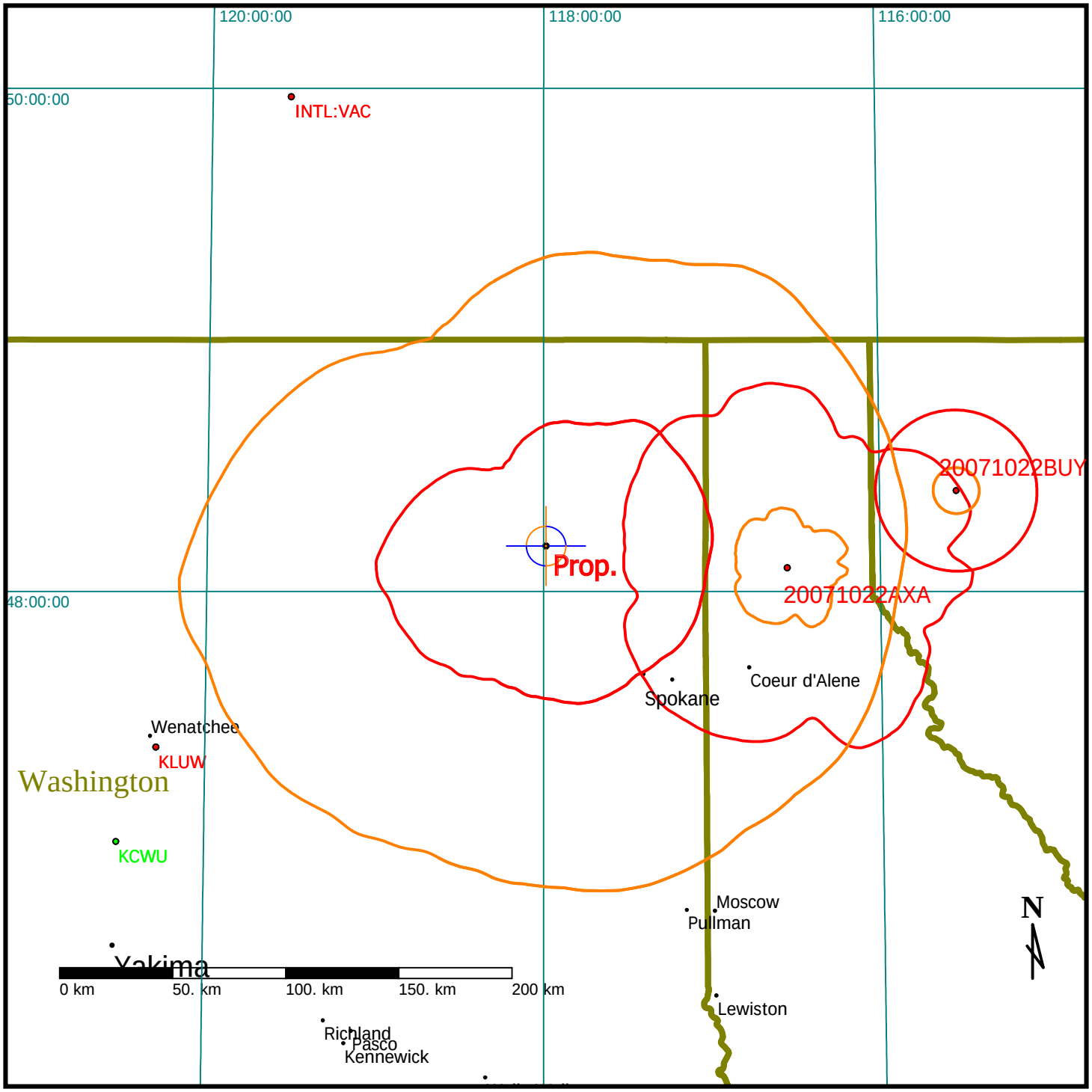

Exhibit 16c - First-Adjacent Channel Contour Protection

Brown Broadcast Services, Inc.
Job: NCE Medical Lake_Oct18 2008 amend.fmj
Master Database: 2008_Oct_18.fmd
Lat: N48:10:50 Lon: W117:59:11 NAD-27
Scale: 1:2000000
Channel: 201 Class: C1

PROPOSED
Protected: 60dbu F(50,50)
Interfering: 54dbu F(50,10)
AFFECTED
Protected: 60dbu F(50,50)
Interfering: 54dbu F(50,10)

rfInvestigator Version 3.2.83
by rfSoftware, Inc.
Date: 11/3/2008 9:19:33 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

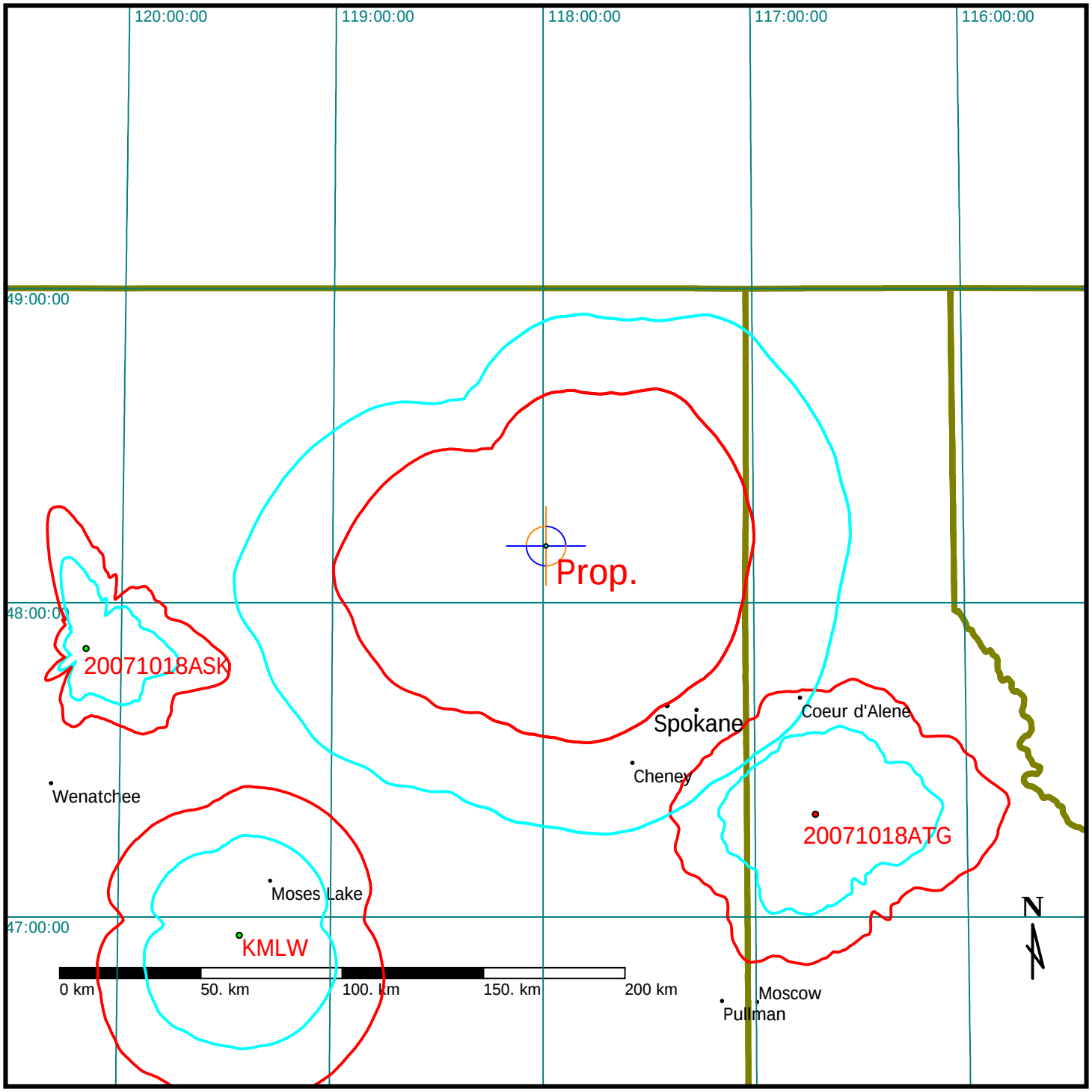

Exhibit 16d - 2nd & 3rd-Adjacent Channel Contour Protection

Brown Broadcast Services, Inc.
Job: NCE Medical Lake_Oct18 2008 amend.fmj
Master Database: 2008_Oct_18.fmd
Lat: N48:10:50 Lon: W117:59:11 NAD-27
Scale: 1:1250000
Channel: 201 Class: C1

PROPOSED
Protected: 60dbu F(50,50)
Interfering: 100dbu F(50,10)
AFFECTED
Protected: 60dbu F(50,50)
Interfering: 100dbu F(50,10)

rfInvestigator Version 3.2.83
by rfSoftware, Inc.
Date: 11/3/2008 9:25:02 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

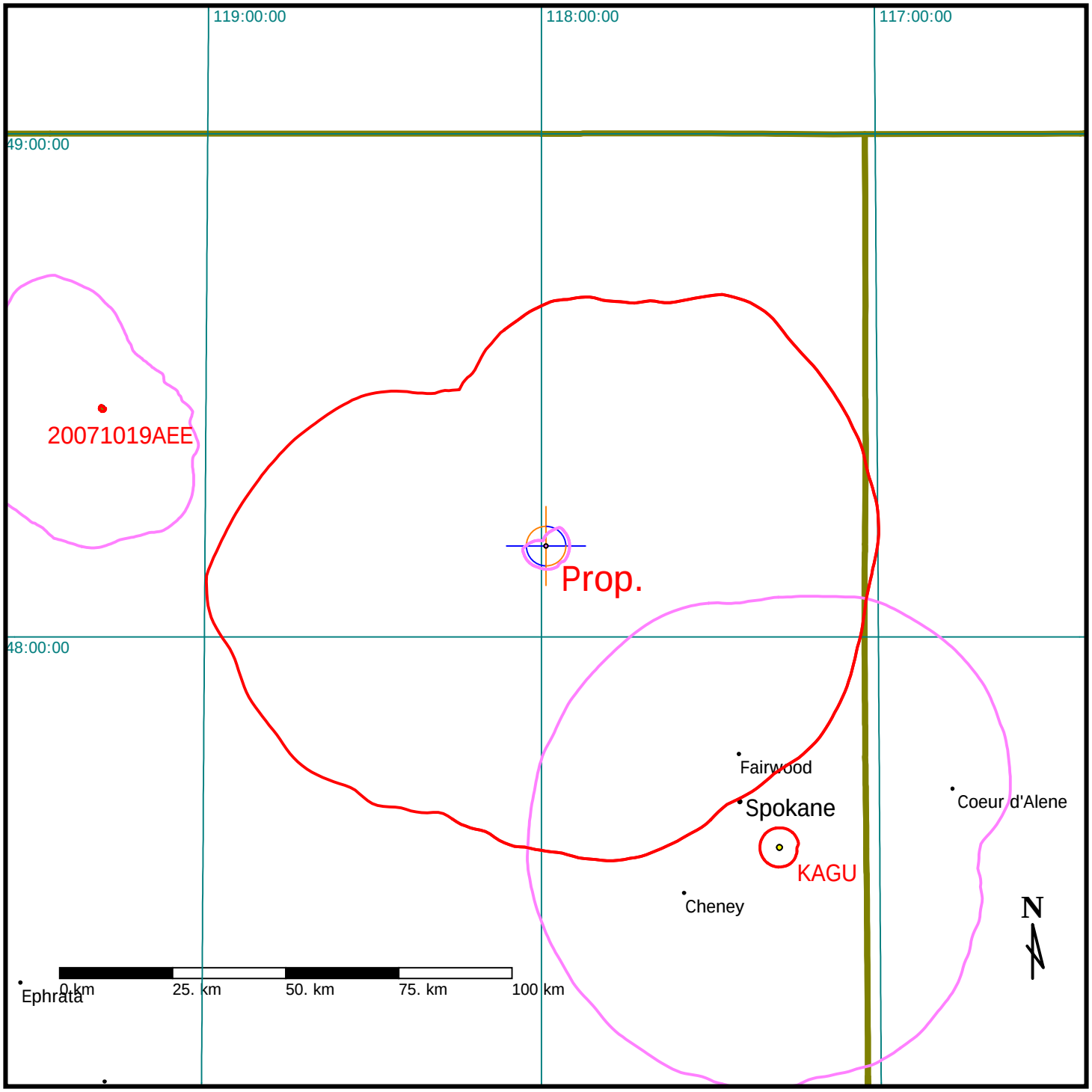

EXHIBIT 19
TV CHANNEL 6 PROTECTION PER §73.525

The only affected TV Channel 6 station is KHQ-TV, Spokane, WA. Attached is a letter of agreement and a letter updating that agreement, between the applicant and KHQ-TV, concurring with the proposed facilities.

BROWN BROADCAST SERVICES
INCORPORATED
Michael D. Brown 3740 S.W. Comus St. Portland, Oregon 97219-7418 503-245-6065

EXHIBIT 19A
TV CHANNEL 6 WAIVER LETTER

KHQ-TV • P.O. Box 600 • Spokane, WA 99210-0600 • 509/448-6000 • Fax: 509/448-4694 • www.khq.com

October 1, 2007

Agreement of Understanding

Between

KHQ Incorporated
1201 Sprague Ave.
Spokane, WA 99201

And

Thin Air Community Radio
35 W. Main, Suite 340
Spokane, WA 99201
Lupito Flores – General Manager

Dear Mr. Flores:

We understand that your organization, Thin Air Community Radio, plans to apply for a new noncommercial educational FM station in the October 2007 filing window.

The specifications are:

Freq:	88.1mhz
ERP:	6.5kw, non-directional
Antenna Height:	1777m AMSL
Antenna Type:	Shively 6510 or equivalent, vertical polarization only (to minimize effects to H-Pol TV reception)
Location:	Stensgar (Stranger) Mountain – 48:10:50N; 117:59:11W (NAD 27)

We hereby give our consent to the grant of your application subject to the following conditions:

1. Thin Air will promptly provide us with a copy of the application as filed with the FCC and any subsequent amendments to the technical portions of that application. We reserve the right to withdraw or modify this consent if we, in good faith, conclude that the application or any amendment poses a significant threat of interference to our viewers.
2. Thin Air agrees to promptly remedy any actual interference to Channel 6 viewers that results from the FM facilities as constructed. Thin Air will install suitable notch filters or take other steps that we agree are appropriate, to eliminate such actual interference.
3. Thin Air will provide KHQ with the phone number and email address of the responsible person to contact if KHQ should receive any complaints from viewers of interference to KHQ on Channel 6.
4. Thin Air will provide KHQ copies of any reception complaints that it receives, and a full description of the corrective action taken.
5. This letter only applies to the application that Thin Air files in the October 2007 Filing Window. Any future changes in operating parameters will require renewed consent from KHQ.

Please return a signed copy of this letter as your understanding and acceptance of its conditions.

Sincerely,

Patricia McRae, Vice President & GM

On Behalf of: KHQ Incorporated
PO Box 600
Spokane, WA 99210

Agreed to:

Signed:

Lupito Flores, Station Manager KYRS

On behalf of: KYRS-LP
35 W. Main, Suite 340
Spokane, WA 99201

Exhibit 19b
TV Channel 6
Waiver update

October 17, 2008

Addendum to Agreement of Understanding

Between

KHQ Incorporated
1201 Sprague Ave.

And

Thin Air Community Radio
35 W. Main, Suite 340
Spokane, WA 99201
Lupito Flores – General Manager

Dear Mr. Flores:

We understand that you are amending Thin Air Community Radio's application for a new non-commercial FM station at Medical Lake, WA (BNPED-20071022AFM). The amendment adds a null to the northwest, to protect a Canadian allotment. No other technical changes are proposed.

In our Agreement of Understanding dated October 1, 2007, we gave our consent to the grant of your original application, subject to several conditions. Condition #5 requires renewed consent from KHQ, if there are any changes in operating parameters.

Since your amendment only subtracts coverage from your original application, and does not add coverage to any new areas, KHQ hereby consents to the grant of your amended application, subject to all of the same conditions that are contained in the October 1, 2007 Agreement.

Sincerely,

Paul Caryl
Director of Engineering, KHQ, Incorprated

EXHIBIT 21
INTERNATIONAL BORDERS

This proposal is within the 320km Canadian border zone. The affected Canadian stations are:

FCC ID	CANADA ID	City	St	Chan	CL	Stat	Dist	Min 207	Clear 207
INTL:VAC	REVFM-268	KELOWNA	BC	201	C		228.30	274	-45.70
INTL:VAC	(superceded by CBRO)	CHRISTINA LAKE	BC	203	A		100.13	99	1.13
(none - missing)	CBRO	CRISTINA LAKE	BC	203	A	LIC	93.10	99	-5.90
INTL:VAC	REVFM-251	CRAWFORD BAY	BC	202	A		183.28	168	15.28

As shown above, this proposal is fully-spaced to the vacant allotment at Crawford Bay, BC. Meanwhile, contour protection to the 97km protected radius of the co-channel Kelowna, BC vacant allotment is shown by Exhibit 21a.

Channel 201 at Medical Lake appears to be already coordinated with Canada, with respect to Kelowna, BC. The "SS" (short space) code in the Canadian database is listed as "IB"[1], which specifies a limited allotment as follows:

IB Limited to 354.5W and 872.7m towards 201C Kelowna, BC. (Az.=331.1°).

The actual facility proposed herein is:

352.9 watts (0.233 relative field) at 870 meters HAAT, towards 201C Kelowna, BC - Azimuth = 331.1°.

This proposal therefore does not exceed the parameters already coordinated with Canada.

The FCC CDBS is missing data for on-air station CBRO, Cristina Lake, BC, which apparently replaces the open-allotment at the same city. Contour protection to the 38km protected radius of CBRO is shown by Exhibit 21b.

[1]As noted in USAEFML.TXT file, from Industry Canada - 9/9/08

Exhibit 21a - Contour Protection to Kelowna, BC Vacant Allotment

Brown Broadcast Services, Inc.
Job: NCE Medical Lake_Oct18 2008 amend.fmj
Master Database: 2008_Oct_18.fmd
Lat: N48:10:50 Lon: W117:59:11 NAD-27
Scale: 1:2500000
Channel: 201 Class: C1

rfInvestigator Version 3.2.83
by rfSoftware, Inc.
Date: 11/3/2008 11:04:13 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

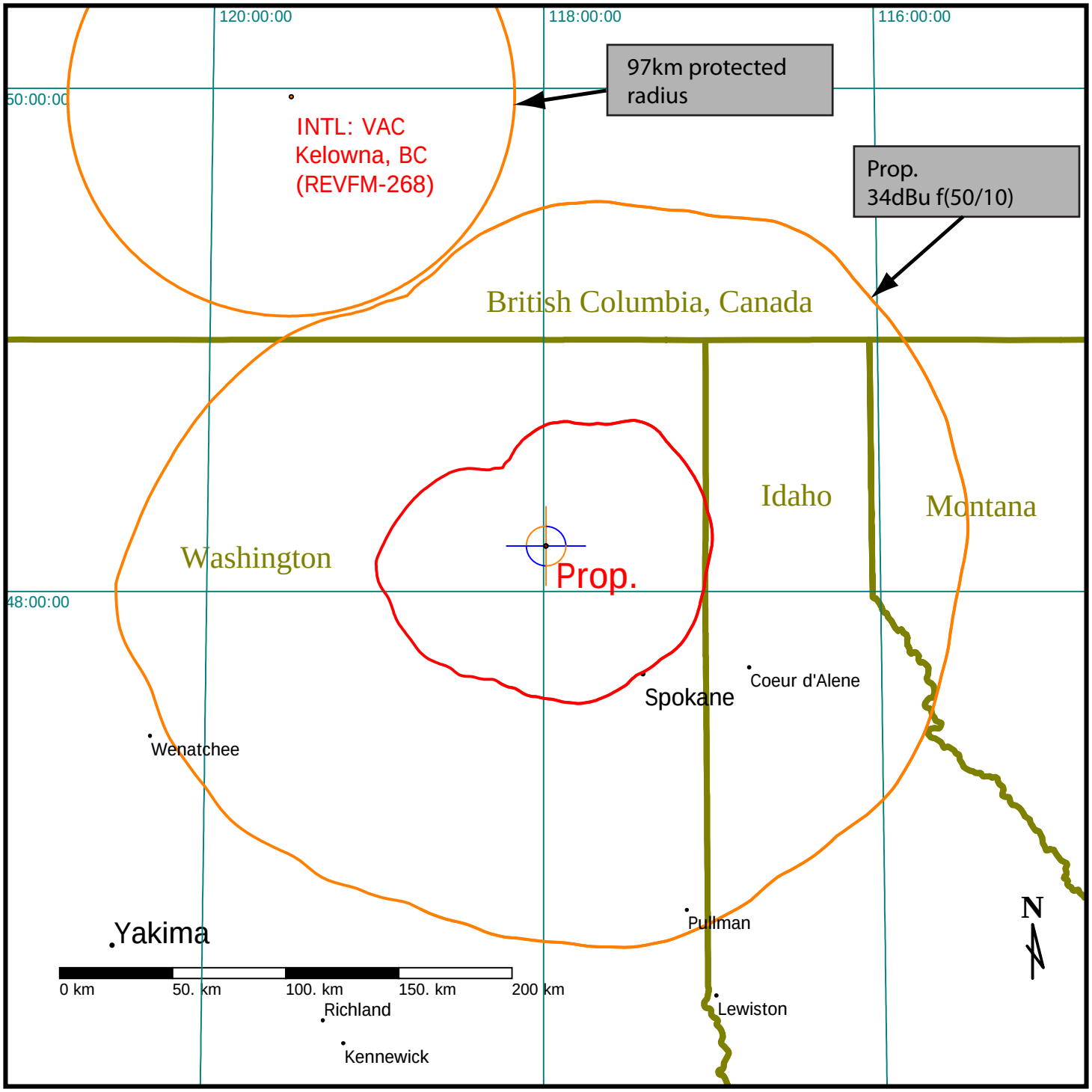

Exhibit 21b - Contour Protection to CBRO-FM

Brown Broadcast Services, Inc.
Job: NCE Medical Lake_Oct18 2008 amend.fmj
Master Database: 2008_Oct_18.fmd
Lat: N48:10:50 Lon: W117:59:11 NAD-27
Scale: 1:1250000
Channel: 201 Class: C1

rfInvestigator Version 3.2.83
by rfSoftware, Inc.
Date: 11/3/2008 11:32:20 PM
Key:
City Grade
Protected
Co-Channel
1st Adj
2nd/3rd Adj

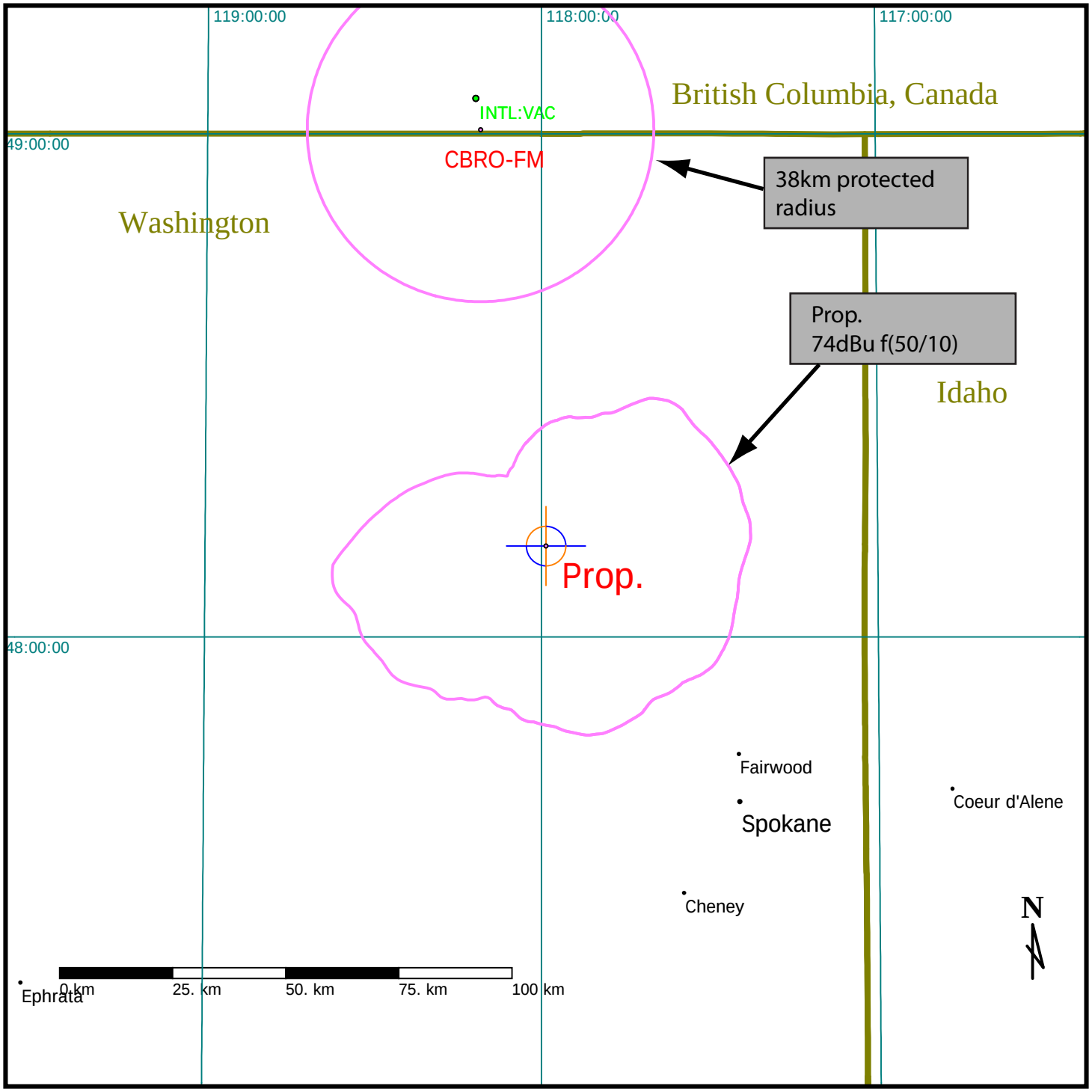

EXHIBIT 22
ENVIRONMENTAL PROTECTION ACT / NEIR ANALYSIS

The applicant proposes mounting a new antenna on a "replacement" 22m tower. The proposed center of radiation is 20m AGL. Rf exposure calculations were made using *FM Model for Windows, version 2.10*, using a 2 bay, 0.76 wavelength-spaced Shively 6510 vertically-polarized antenna. FM Model predicts a peak exposure of 30.2μw/cm^2, at 50 meters from the tower. This represents 15.1% of the Maximum Permissible Exposure (MPE) of 200μw/cm^2 for uncontrolled environments. There are no other broadcast or other high level RF emitters at or near this site, that might be significant contributors to the overall ground-level RF exposure levels.

The applicant will ensure that public access to the tower is restricted by fencing, anti-climb devices, or other appropriate measures. The site will posted with appropriate RF exposure warning signs. If tower climbing by authorized personnel becomes necessary, transmitter power will be reduced or operation will cease, as necessary, so as to not exceed the RF exposure limits.

The site is at an established "antenna farm", which contains at least five communications structures in the vicinity. The proposed new tower would replace an existing communications pole.

The applicant has determined, to the best if its ability, that this facility would not have a significant environmental impact, in that:

1. The proposed facility will not be located in an officially designated wilderness area, wildlife preserve, or flood plain; nor will it physically or visually affect sites significant in American history.
2. The proposed facility will not threaten the existence or habitat of endangered species.
3. The proposed facility will not employ high intensity white lighting in a residential neighborhood. Indeed, no tower lighting will be required.
4. The proposed facility will not affect districts, sites, buildings, structures or objects significant in American history, architecture, engineering or culture that are listed in the National Register of Historic Places, or are eligible for listing.

5. The proposed facility will not affect Indian religious sites.

6. The proposed facility will not require significant changes in surface features such as wetland fill, deforestation or water diversion.

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