TECHNICAL EXHIBIT
MINOR CHANGE TV TRANSLATOR DTV FLASH-CUT
APPLICATION FOR CONSTRUCTION PERMIT
STATION K14BF (FACILITY ID 71523)
WENATCHEE, WASHINGTON

FEBRUARY 24, 2006

CH 14 15 KW-ND

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Technical Narrative

This technical exhibit supports a minor change digital television (DTV) flash-cut application from TV translator station K14BF at Wenatchee, Washington (Facility ID 71523).

According to the Federal Communications Commission (FCC) database, station K14BF is licensed for an analog (NTSC) operation on channel 14 with no carrier offset (BLTTL-19861229IA). A directional antenna (DA) is employed. The maximum visual effective radiated power (ERP) is 0.784 kilowatt (kW). The antenna center of radiation is 9 meters above ground level (AGL), and 1041 meters above mean sea level (AMSL). The transmitter site coordinates are 47-27-51, 120-12-26 (NAD-27). There is no FCC antenna structure registration number for the supporting structure.

Station K14BF proposes a flash-cut application to operate DTV on its current in-core channel 14. No change in city of assignment (Wenatchee, WA) is proposed. It is proposed to use a RFS (formerly Bogner) model B4UO(M) non-directional antenna system fed by a 3.07 kW DTV transmitter. The proposed ERP is 15 kW. The proposed antenna will be mounted on a pole having an overall height of 6.1 meters (20 feet) AGL. The proposed antenna center of radiation will be 4.3 meters above ground level (AGL), and 1047.9 meters AMSL. The site coordinates are 47-27-54, 120-12-32 (NAD-27). Since the overall height of the supporting structure is only 6.1 meters (20 feet) AGL, the Federal Aviation Administration (FAA) is not being notified of the proposed K14BF DTV operation.

The gain for the RFS model B4UO(M) antenna system is 5.2 (7.16 dB). The antenna will be coupled to the transmitter through 15.2 meters (50 feet) of 1-5/8 inch air dielectric flexible coaxial transmission line. The efficiency of the line on channel 14 is 94%. The TV translator DTV transmitter power output (TPO) will be 3.07 kW. This combination results in the proposed TV translator DTV ERP of 15 kW-ND.

There are no known full service AM broadcast stations within 5 kilometers (3 miles) of the K14BF site. There are no other known TV or FM stations within 0.2 kilometer of the K14BF site. Although no adverse electromagnetic interaction is expected, the applicant recognizes its responsibility to correct problems that its proposed TV translator DTV operation may cause.

Allocation Considerations

A study has been conducted using the provisions of Section 74 Subpart G of the FCC rules to assure that the proposal will not create prohibited interference with other authorized or pending analog (NTSC) and digital (DTV) full-power TV, low power television (LPTV), TV translator, and Class A TV stations. The proposed K14BF channel 14 TV translator DTV operation was studied using the FCC's recently adopted LPTV-DTV rules and the interference procedures outlined in the FCC's OET-69 Bulletin. In accordance with current FCC processing policy, a 1 kilometer grid and the 1990 US Census was employed. The proposed K14BF channel 14 TV translator DTV operation complies with the FCC's allocation standards (ie, less than 0.5% new interference caused to other pertinent assignments).

The K14BF site is 170 kilometers from the nearest point of the US/Canada border. Consideration has been given to Canadian TV and DTV assignments. The following is a list of the known Canadian analog (NTSC) and DTV allotments on channel 14 within 400 kilometers of the K14BF site. The bearing and distance from the K14BF site to the Canadian allotment is given.

Canadian Allotment	Channel	Bearing	Distance
CBUFT-TV, Chilliwack, BC	NTSC-14B	327 deg.	219.6 km
Vacant, Trail, BC	NTSC-14B	45	260.2
Vacant, Kelowna, BC	DTV-14C	11	274.1
Vacant, Vancouver, BC	DTV-14C	314	294.2
CBUCT-DT, Creston, BC	DTV-14VU	53	323.0

Sheet 1 of Figure 2 shows the protected contours for the 5 Canadian TV and DTV allotments. The map also shows the proposed K14BF co-channel analog (NTSC) interfering contour (30.2 dBu, F(50,10)) and DTV interfering contour (12.4 dBu, F(50,10)). The proposed K14BF 30.2 dBu F(50,10) contour does not overlap the CBUFT-TV and Trail protected contours in Canada land area. The proposed K14BF 12.4 dBu F(50,10) contour does not overlap the CBUCT-DT protected contour over Canadian land area.

There is overlap between the proposed K14BF 12.4 dBu F(50,10) interfering contour and the Kelowna and Vancouver protected contour. Interference studies have been made using the Longley-Rice propagation model and the interference parameters contained in the US-Canada Letter of Understanding (LOU) concerning implementation of digital television in the border area. A 1 kilometer grid, digitized US and Canada terrain databases, and the Canadian population database have been employed. Sheet 2 of Figure 2 is a printout from the interference study showing no interference to Canadian population.

It is believed the proposed K14BF channel 14 TV translator DTV operation complies with the US/Canada TV/DTV Agreements. The applicant recognizes that it is a secondary service and must protect full service TV and DTV facilities if it should cause prohibited interference.

The closest point of the Mexican border is more than 1600 kilometers to the south. The closest FCC monitoring station is at Ferndale, Washington, approximately 240 kilometers to the northwest. The closest point of the National Radio Quiet Zone (VA/WV) is more than 3200 kilometers to the east. The Table Mountain Radio Quiet Zone (CO) is more than 1400 kilometers to the southeast. The closest radio astronomy site using channel 37 is at

Brewster, Washington, approximately 84 kilometers to the northeast. These separations are considered sufficient to not be a coordination concern.

As noted above, interference calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin.[1] The proposed K14BF channel 14 TV translator DTV operation complies with the FCC's "de minimis" (0.5%) interference policy. The applicant recognizes the proposal is secondary to authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation. If necessary, a waiver of the FCC rules is respectfully requested based on use of the procedures outlined in the FCC's OET-69 Bulletin.

Radiofrequency Electromagnetic Field Exposure

The proposed K14BF facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed antenna is located 4.3 meters above ground level with an ERP of 15 kW. Based on the antenna vertical elevation relative field pattern, the calculated power density at 2 meters above ground level will exceed the FCC recommended limit 0.32 mW/cm^2 at various locations within 64 meters (210 feet) of the tower base for an "uncontrolled" environment. RF measurements will be taken and a fence will be constructed to restrict to any areas found to be in excess of the FCC's limit.

In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

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[1] The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. A Sun based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

Figure 3 is a map showing the predicted 74 dBu F(50,50) contour for the present K14BF analog operation on channel 14 (0.784 kW-DA). The map also shows the predicted 51 dBu F(50,90) contour for the proposed K14BF TV translator DTV operation on channel 14 (15 kW-ND). As shown, there is overlap between the present and proposed K14BF contours.

If there are questions concerning this technical statement or the technical portion of this application, please communicate with the office of the undersigned.

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February 24, 2006

BOGNER BROADCAST EQUIPMENT CORP.
603 Carnegue Rock Road
WESTBURY, NEW YORK 11590

BOGNER VERTICAL PLANE RADIATION PATTERN B4U( )

LOW & MEDIUM POWER

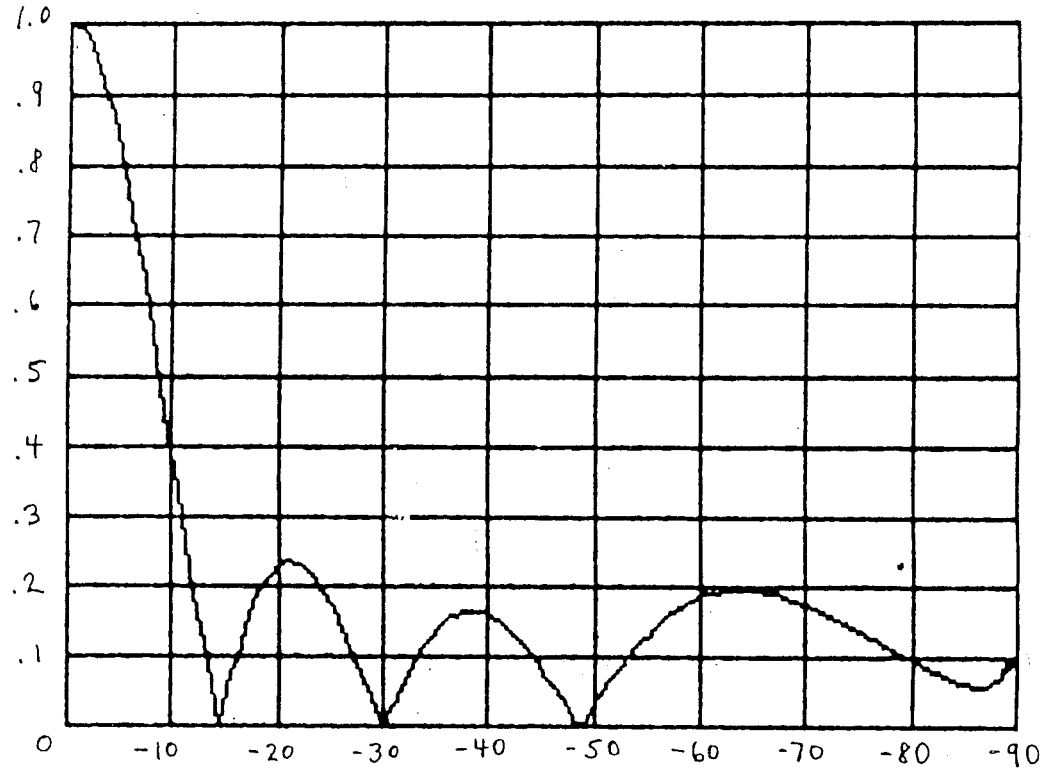
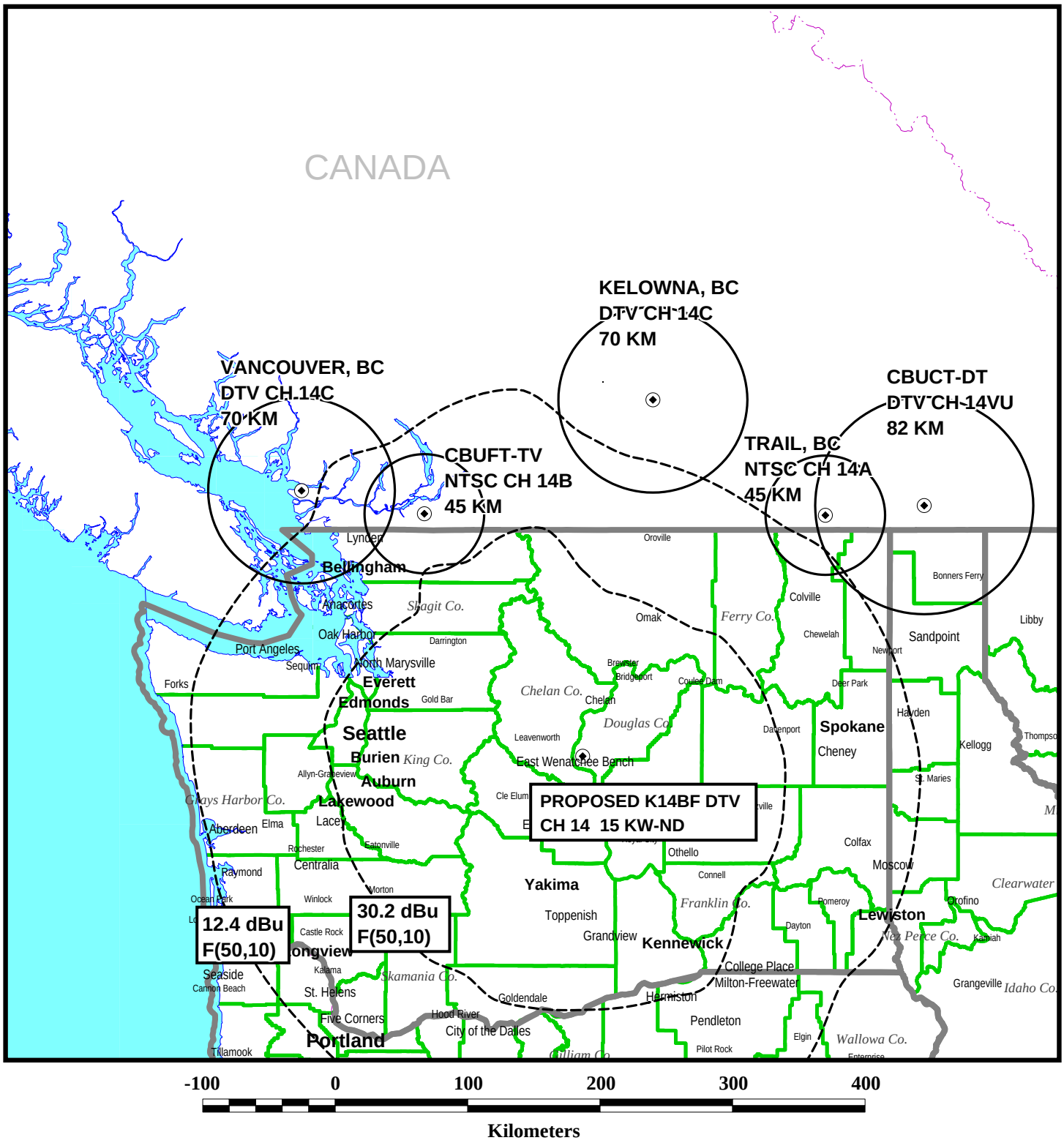


Figure 1



CANADA ALLOCATION STUDY

STATION K14BF
WENATCHEE, WASHINGTON
CH 14 15 KW-ND

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

```
Study Date: 20060223
Study Start: 16:45:01
CANADIAN INTERFERENCE CAUSED FROM PROPOSED K14BF LPTV-DTV OPERATION
CELL SIZE : 1.0 km
Using DTV->DTV service params
Using circles for service area



*****************************
KELOWNA  49-53-00 119-29-00  14  75.0 kW-ND   964.8 m AMSL   90.0 % 39.0 dBu
KELOWNA             BC
CANTAB         CLASS C
Calculated RCAMSL with HAAT of 300 m
%loc = 90.0  %time = 90.0
                                  Area              Pop
within Noise Limited Contour    15400.0 sq km    254053
not affected by terrain losses   3032.8          146477
************
K14BF-P  47-27-54 120-12-32  14  15.0 kW-ND  1047.9 m AMSL   10.0 % 39.0 dBu
WENATCHEE           WA
APP   PROPOSED LPTV-DTV      CLASS C

D/U Baseline: 19.5 dB
%loc = 10.0  %time = 10.0
                                  Area              Pop
Interference                         9.8 sq km        0  (0.0%)



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VANCOUVER  49-16-00 123-07-00  14  75.0 kW-ND  366.8 m AMSL   90.0 % 39.0 dBu
VANCOUVER(58)       BC
CANTAB         CLASS C
Calculated RCAMSL with HAAT of 300 m
%loc = 90.0  %time = 90.0
                                  Area              Pop
within Noise Limited Contour    15386.9 sq km    2149101
not affected by terrain losses   8825.1          2036837
************
K14BF-P  47-27-54 120-12-32  14  15.0 kW-ND  1047.9 m AMSL   10.0 % 39.0 dBu
WENATCHEE           WA
APP    PROPOSED LPTV-DTV     CLASS C

D/U Baseline: 19.5 dB
%loc = 10.0  %time = 10.0
                                  Area              Pop
Interference                         6.0 sq km        0  (0.0%)

Study end time: 16:46:07
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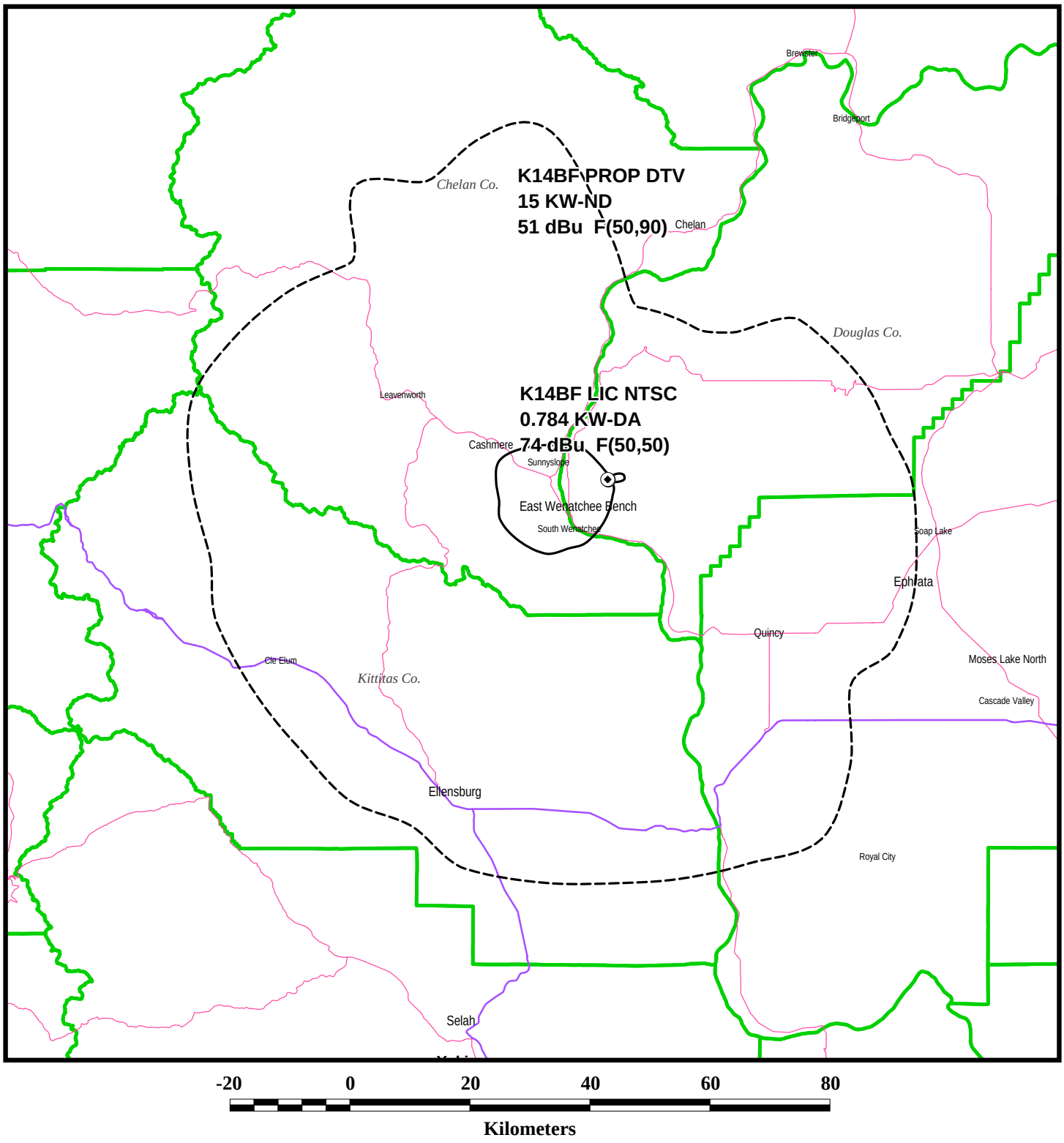

PREDICTED COVERAGE CONTOURS

STATION K14BF
WENATCHEE, WASHINGTON
CH 14 15 KW-ND

du Treil, Lundin & Rackley, Inc. Sarasota, Florida