

TECHNICAL EXHIBIT
MINOR CHANGE APPLICATION
STATION KGPX (FACILITY ID 81694)
SPOKANE, WASHINGTON

APRIL 11, 2007

CH 34 104 KW (MAX-DA) 450 M

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Technical Narrative

This Technical Exhibit supports a minor change application for construction permit for television station KGPX at Spokane, Washington. Station KGPX is licensed on analog channel 34 with a directional antenna maximum effective radiated power (ERP) of 2820 kilowatts (kW) and an antenna height above average terrain (HAAT) of 450 meters (BLCT-19990809AAA).

Proposed Facilities

Station KGPX desires to “flash-cut” to digital mode on the current channel 34. Digital operation is proposed with the licensed (analog) directional antenna, along with a maximum ERP of 104 kW and an antenna height above average terrain (HAAT) of 450 meters (as specified in the FCC’s 7th Further Notice of Proposed Rulemaking), from the current transmitter site. The site coordinates remain (NAD27): 47-36-04 N, 117-17-53 W. The licensed Dielectric TFU-30JSC-R C170 antenna is proposed for digital operation. The antenna structure registration number (ASRN) is 1033014.

Figure 2 is a map indicating that the proposed City-Grade contour will encompass all of the city limits of Spokane (derived from 2000 U.S. Census information for Washington).

In the FCC's 7th Further Notice of Proposed Rulemaking (7th FNPRM), the following DTV allotment is proposed for KGPX:

<u>Channel</u>	<u>ERP</u>	<u>HAAT</u>	<u>Site Coordinates</u>	<u>Antenna ID</u>	<u>Population</u>
34	104	450	47-36-04 N, 117-17-53 W	18990	537,000

KGPX desires to operate its digital facility using its currently licensed directional antenna. This is the same antenna pattern that was used to replicate KGPX's certified analog coverage for the DTV allotment proposed in the 7th FNPRM. However, due to the difference in the analog F(50,50) versus digital F(50,90) propagation curves, the pattern proposed by the FCC in the 7th FNPRM differs slightly from the licensed pattern. The difference is believed to be minimal as evidenced by the coverage map in Figure 2. Since there is a slight extension to the current analog contour, the applicant is requesting waiver of the FCC's Freeze for the slight contour extension, if necessary.

Allocation Considerations

The proposed KGPX-DT operation meets the FCC's interference standards to pertinent analog (NTSC) and DTV assignments using the procedures outlined in the FCC's OET-69 Bulletin and a 2 kilometer grid cell size. The proposed KGPX-DT operation complies with the FCC's "de minimis" interference policy with respect to pertinent Class A TV assignments.

Since the proposed operation slightly extends the noise-limited contour beyond that proposed in the 7th FNPRM, OET-69 studies (using 2000 Census) were also conducted on a post-transition basis to determine if any impact would be caused to any other proposed allotment listed in the 7th FNPRM table (or to any Class A station). The results of the study indicate that no new interference is predicted to be caused to any post-transition station (see Figure 3).

Canadian Allocation Study

The KGPX site is located 156 kilometers from the closest point of the Canadian border. Based on the Canadian Letter of Understanding (LOU), the proposal does not meet the minimum separation requirements to three co-channel (34) digital Canadian stations:

<u>Station</u>	<u>LOU Required (km)</u>	<u>Actual Distance (km)</u>
CBUCT-1, Crawford Bay, BC	359	230
NEW, Summerland, BC	367	284
NEW, Blairmore, AB	386	307

Since these all operate or propose to operate on the same channel as KGPX, the interfering contour (based on the LOU) for KGPX-DT is the 19.5 dBu F(10,10) {or 12.4 dBu F(50,10)}. The protected circle for each Canadian station extends 70 km, 45 km and 25 km for CBUCT-1, Summerland and Blairmore, respectively. The map in Figure 4 shows the three Canadian stations and their protected circles along with the predicted interfering contour for KGPX-DT. Also shown on the map is the KGPX analog 24.7 dBu F(50,10) interfering contour. As can be seen on the map the proposed digital operation reduces the existing contour overlap with all three Canadian stations. OET-69 interference studies also confirmed that no population would be affected by the proposed KGPX-DT operation. If the FCC feels that coordination with Canada is required, it is respectfully requested.

Radiofrequency Electromagnetic Field Exposure

The proposed KGPX-DT 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 163 meters above ground level with a maximum ERP of 104 kW. A conservative relative field value of 0.1 was assumed for the downward antenna radiation calculation (see Figure 4). The calculated power density at a

point 2 meters above ground level will be 0.0013 mW/cm^2 . This is less than 5% of the FCC's recommended limit of 0.4 mW/cm^2 for channel 34 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. 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.

It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already have been provided to the FCC by the tower owner.



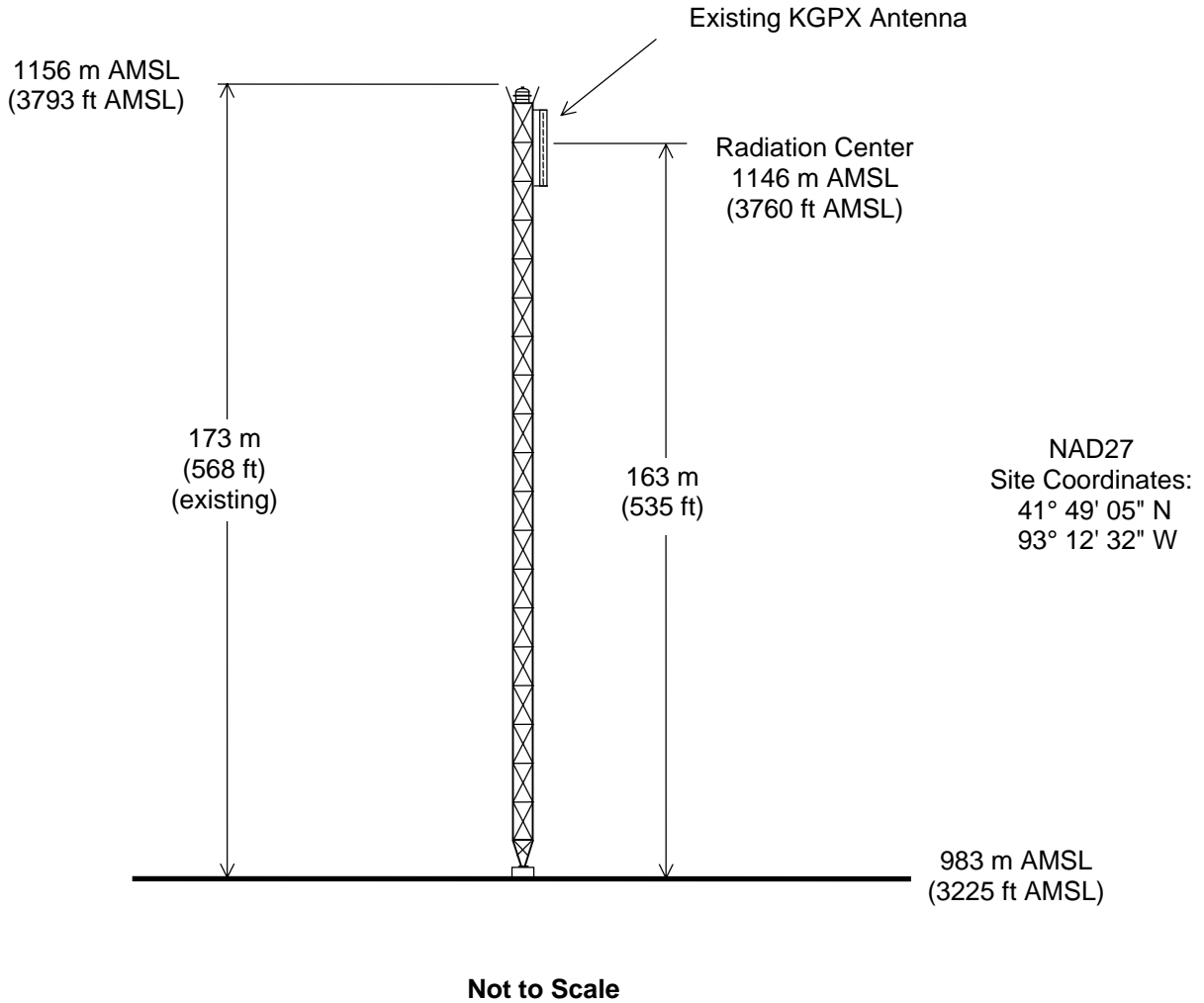
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April 11, 2007



ASRN: 1033014



ANTENNA AND SUPPORTING STRUCTURE

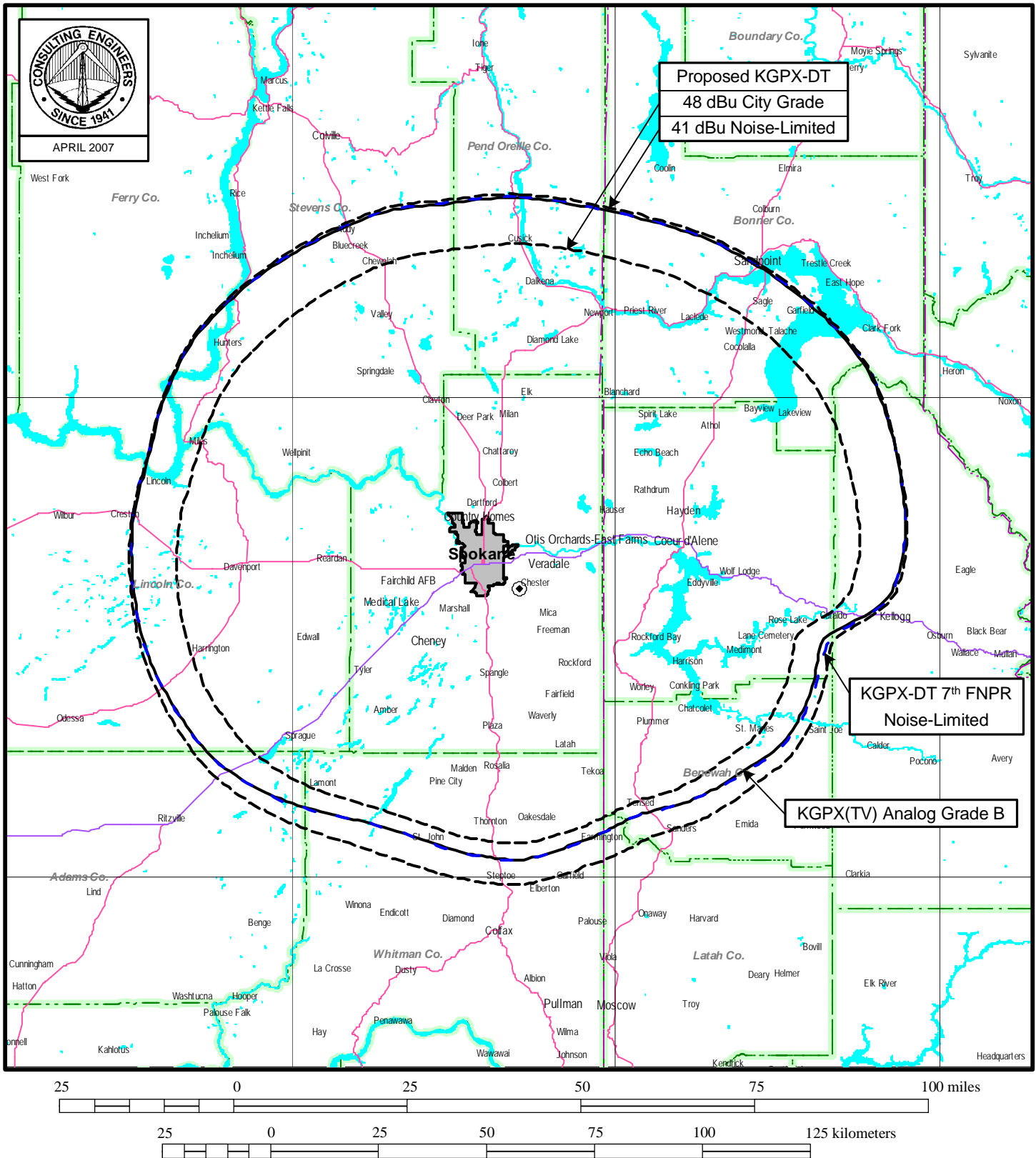
STATION KGPX-DT

SPOKANE, WASHINGTON

CH 34 104 KW (MAX-DA) 450 M

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

Figure 2



PREDICTED COVERAGE CONTOURS

STATION KGPX-DT

SPOKANE, WASHINGTON

CH 34 104 KW (MAX-DA) 450 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Census data selected 2000

Date: 03-28-2007 Time: 15:41:46

Record Selected for Analysis

KGPX USERRECORD-01 SPOKANE WA US
 Channel 34 ERP 104. kW HAAT 449. m RCAMSL 01146 m
 Latitude 047-36-04 Longitude 0117-17-53
 Status APP Zone 2 Border
 Dir Antenna Make CDB Model 00000000018990 Beam tilt N Ref Azimuth 0.

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	84.053	493.0	91.5
45.0	93.761	508.1	93.5
90.0	91.894	414.3	87.6
135.0	14.199	350.7	70.9
180.0	6.243	393.9	68.6
225.0	14.199	442.1	76.7
270.0	91.894	460.5	90.0
315.0	93.761	527.1	95.0

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance

Distance to border = 155.5km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Proposed Station			
Channel	Call	City/State	ARN
34	KGPX	SPOKANE WA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
------	------	------------	----------	--------	----------------------

%%%

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
34	KGPX	SPOKANE WA	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
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Total scenarios = 1

Result key: 1
Scenario 1 Affected station 1
Before Analysis

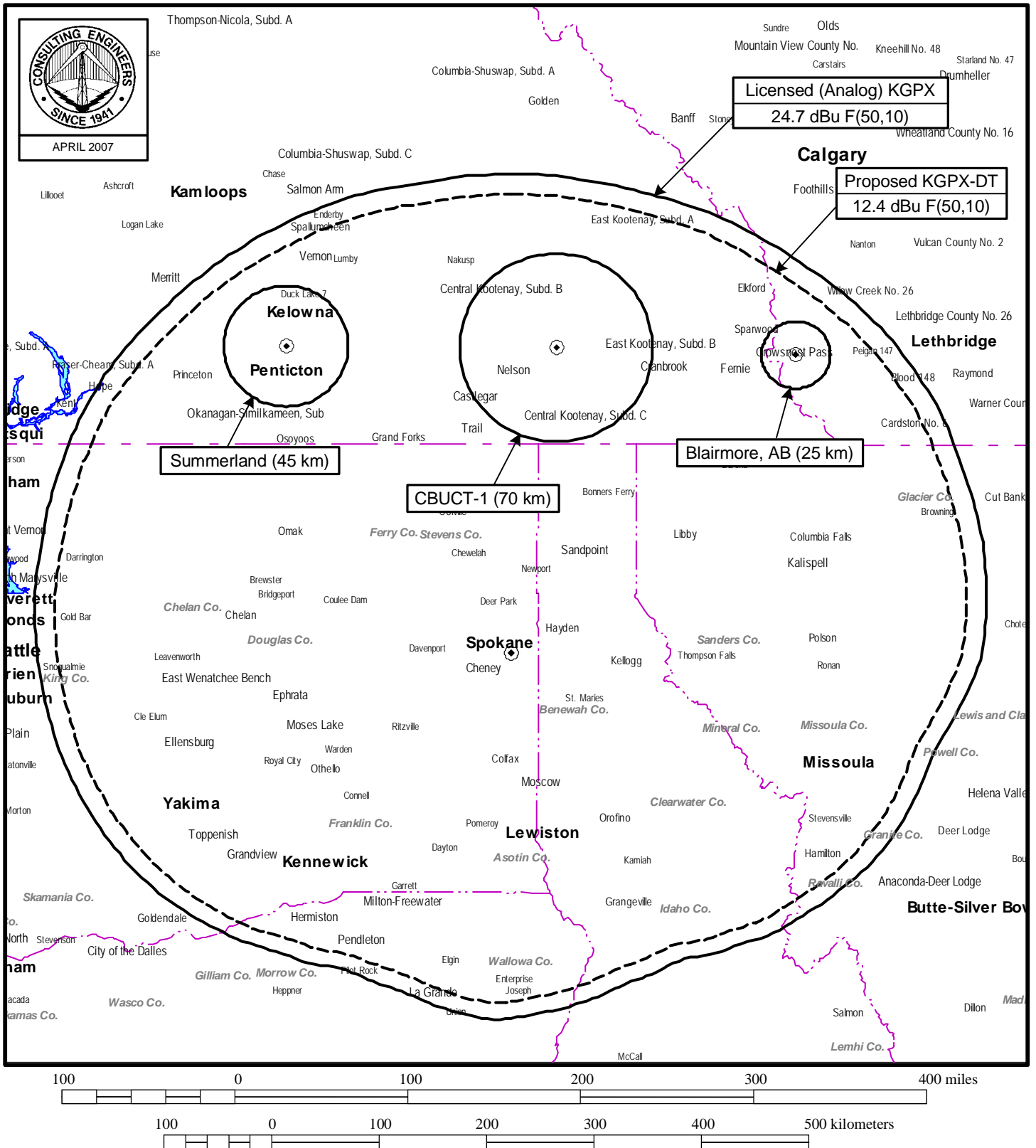
Results for: 34A WA SPOKANE USERRECORD01 APP
HAAT 449.0 m, ATV ERP 104.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	606085	22744.8
not affected by terrain losses	545110	18221.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

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Figure 4



CANADIAN ALLOCATION MAP

STATION KGPX-DT

SPOKANE, WASHINGTON

CH 34 104 KW (MAX-DA) 450 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida



Proposal Number

Revision

Figure 5

Date

11 Apr 2007

Call Letters

KGPX

Channel

34

Location

Spokane, WA

Customer

Antenna Type

TFU-30JSC-R C170

ELEVATION PATTERN

RMS Gain at Main Lobe

25.0 (13.98 dB)

Beam Tilt

1.00 Degrees

RMS Gain at Horizontal

8.2 (9.14 dB)

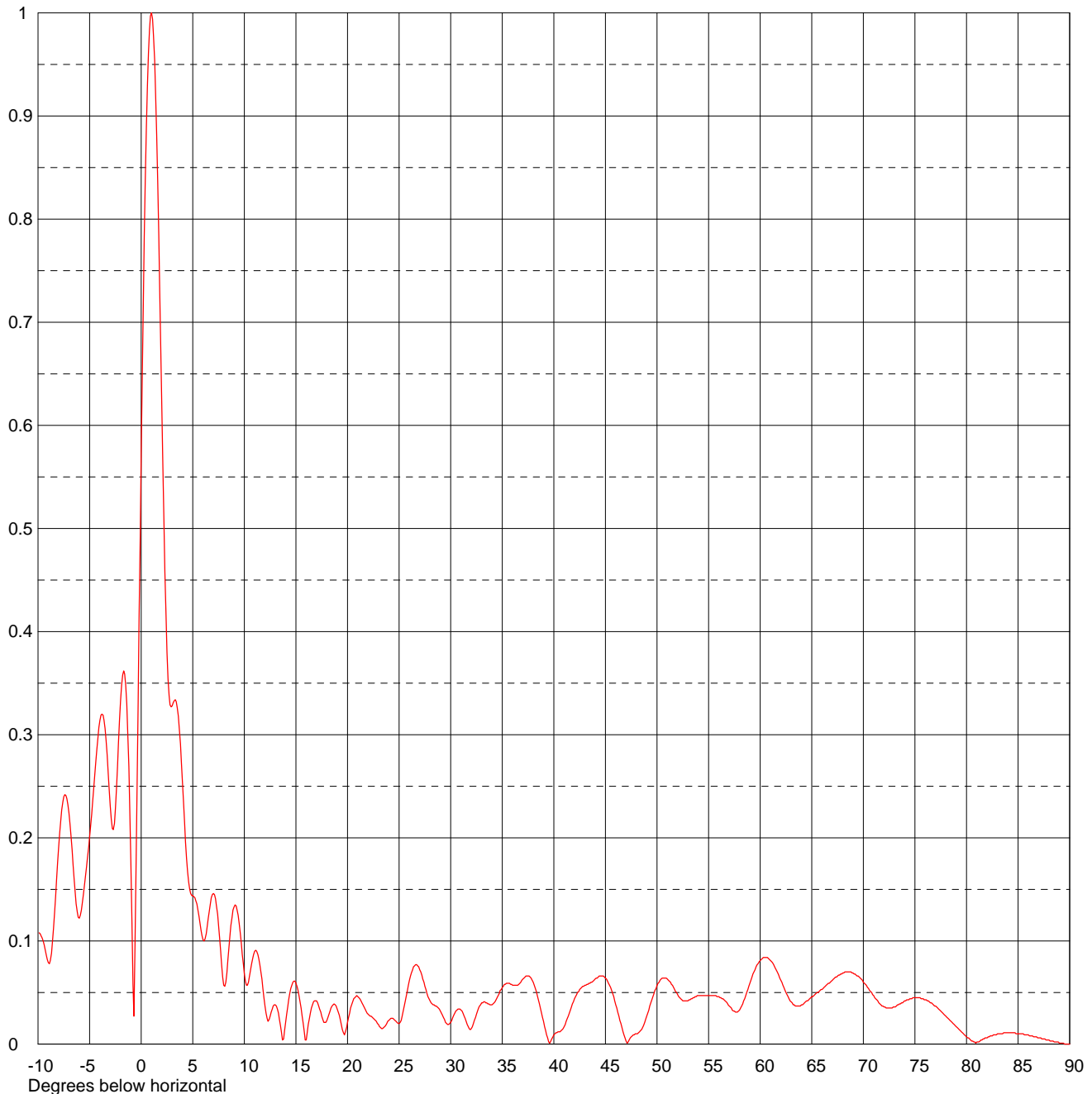
Frequency

593.00 MHz

Calculated / Measured

Calculated

Drawing #

30Z250100-90

Remarks: