

TECHNICAL EXHIBIT
MINOR AMENDMENT TO PENDING APPLICATION
STATION KBCB-DT (FACILITY ID 53586)
BELLINGHAM, WASHINGTON

APRIL 1, 2002

CH 19 165 KW (MAX-DA) 757 M

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Technical Narrative

This Technical Exhibit was prepared on behalf of digital television broadcast station KBCB-DT at Bellingham, Washington. Station KBCB has an application pending for operation on channel 19 with a directional antenna maximum effective radiated power (ERP) of 200 kW and an antenna height above average terrain (HAAT) of 757 meters (BPCDT-19991101AEB). This amendment proposes to change the currently proposed directional antenna pattern and reduce ERP from the pending application.

Proposed Facilities

The site coordinates for the proposed operation are (NAD27): 48-40-46 N, 122-50-31 W. A directional antenna maximum ERP of 165 kW and antenna HAAT of 757 meters are proposed. The FCC antenna structure registration number is 1032381. There is no proposed change in channel, site, antenna height or city of license (Bellingham).

The proposed transmitter site is approximately 18 kilometers from the closest point of the Canadian border (see appendix for Canadian L.O.U. interference showing).

The site is more than 1,800 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Ferndale, Washington, approximately 37.3

kilometers to the northeast (34.3 degrees True). The proposed KBCB-DT operation complies with the FCC's limit of 74 mV/m (97.4 dBu) at the monitoring station.

The closest point of the National Radio Quiet Zone (VA/WV) is more than 3,400 kilometers to the east. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 1,600 kilometers to the east-southeast. The closest radio astronomy site operating on TV channel 37 is at Brewster, Washington, approximately 241 kilometers to the east. These separations are sufficient to not be a concern for coordination purposes.

There are no AM broadcast stations located within 3.2 kilometers of the KBCB transmitter site. No adverse affect from the proposed operation is expected to any nearby broadcast station. However, the applicant recognizes its responsibility to correct problems that may result from its proposed operation.

Allocation Considerations

Interference calculations have been made using the procedures outlined in the FCC's OET-69 bulletin, using a 2 kilometer grid spacing. The proposed KBCB-DT operation does not cause excessive (greater than 2%, up to 10% total) calculated interference to any analog or DTV assignment. Below is the list of stations considered in the OET-69 analysis.

Stations Potentially Affected by Proposed KBCB-DT						
Chan	Call	City/State	Bear (°T)	Dist (km)	Status	App. Ref. No.
16	KONG-TV	EVERETT WA	162	122.0	LIC	BLCT-19970714KF
18	KCPQ-DT	TACOMA WA	179	125.8	PLN	DTVPLN-DTVP0318
19	KCKA-DT	CENTRALIA WA	184	236.7	PLN	DTVPLN-DTVP0360
19	KEPR-TV	PASCO WA	135	397.2	LIC	BLCT-2582
20	KTBW-TV	TACOMA WA	178	125.9	LIC	BLCT-19840409KG
22	KTWB-TV	SEATTLE WA	161	124.7	LIC	BLCT-19990708KE

From the above list of stations considered, the table below shows the calculated interference caused to each station. Only stations that are predicted to receive interference from the proposed KBCB-DT operation are shown in the interference table.

Study Station	Baseline	Net Population Change/Interference
18 KCPQ-DT TACOMA WA (PLN)	3,160,149	9,310 (0.3%) New Interference
19 KCKA-DT CENTRALIA WA (PLN)	317,514	4,474 (1.4%) New Interference
20 KTBW-DT TACOMA WA (LIC)	3,037,621	14,696 (0.5%) New Interference

The proposed KBCB-DT operation does not cause calculated interference to any other analog or DTV station. Therefore, it is believed the proposal complies with the FCC's "de minimis" interference policy.

Class A Consideration

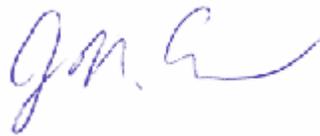
The FCC's list of low power television (LPTV) assignments eligible for Class A status and the FCC CDBS system have been reviewed for potential Class A impact. The proposed KBCB-DT operation will not cause any prohibited contour overlap to any Class A station.

Radiofrequency Electromagnetic Field Exposure

The proposed KBCB-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 148.4 meters above ground level. The maximum ERP is 165 kW and 22% aural power is assumed. A conservative relative field value of 0.07 was assumed for the antenna's downward radiation (see Sheet 3 of Figure 2C). The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0013 mW/cm². This is less than 1% of the FCC's recommended limit of 0.34 mW/cm² for channel 19 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. As this will be a multi-user site, an agreement will control access to the site. 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. The proposed KBCB-DT operation appears to be otherwise categorically excluded from environmental processing.



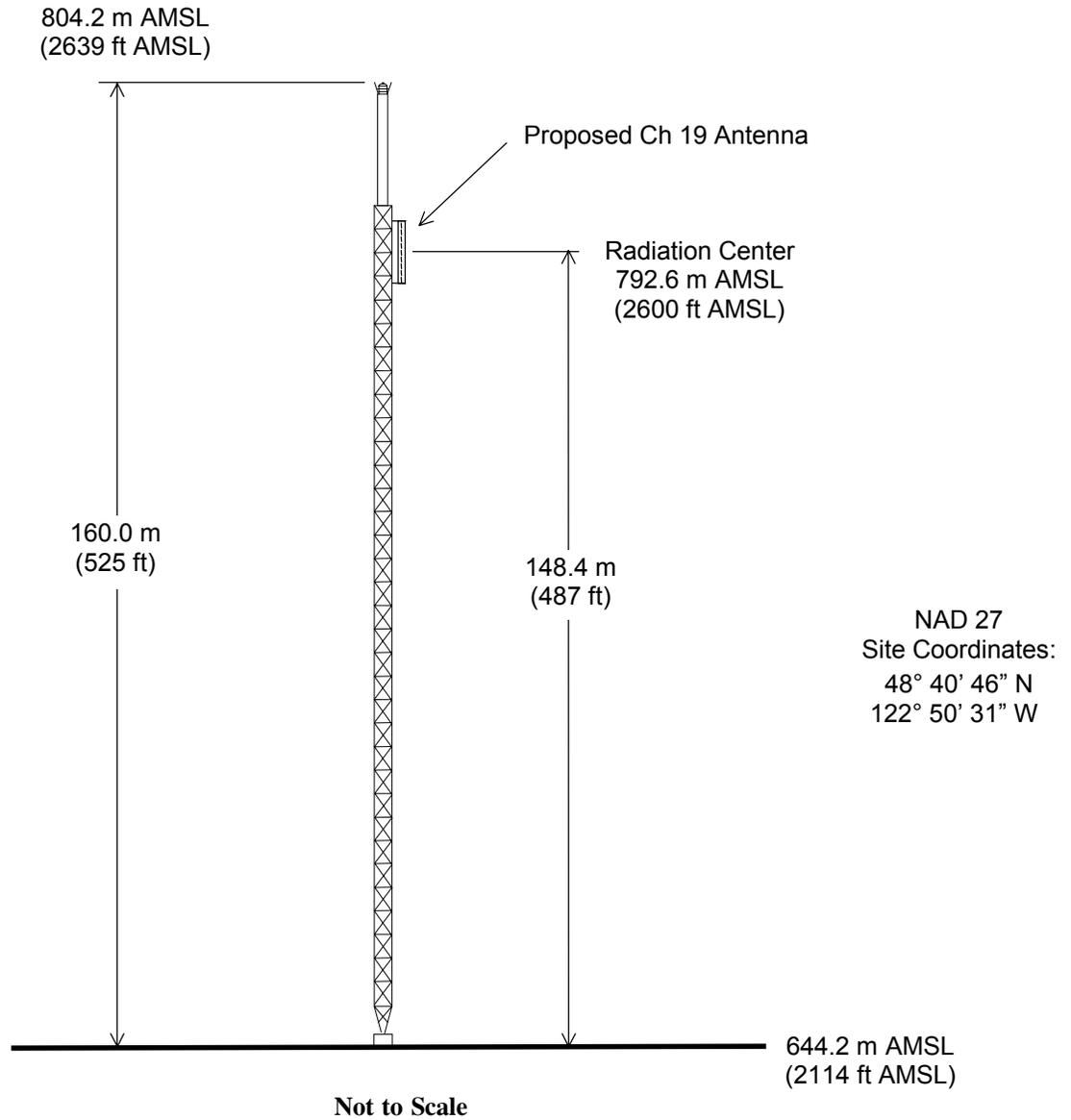
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April 1, 2002



Registration No. 1032381



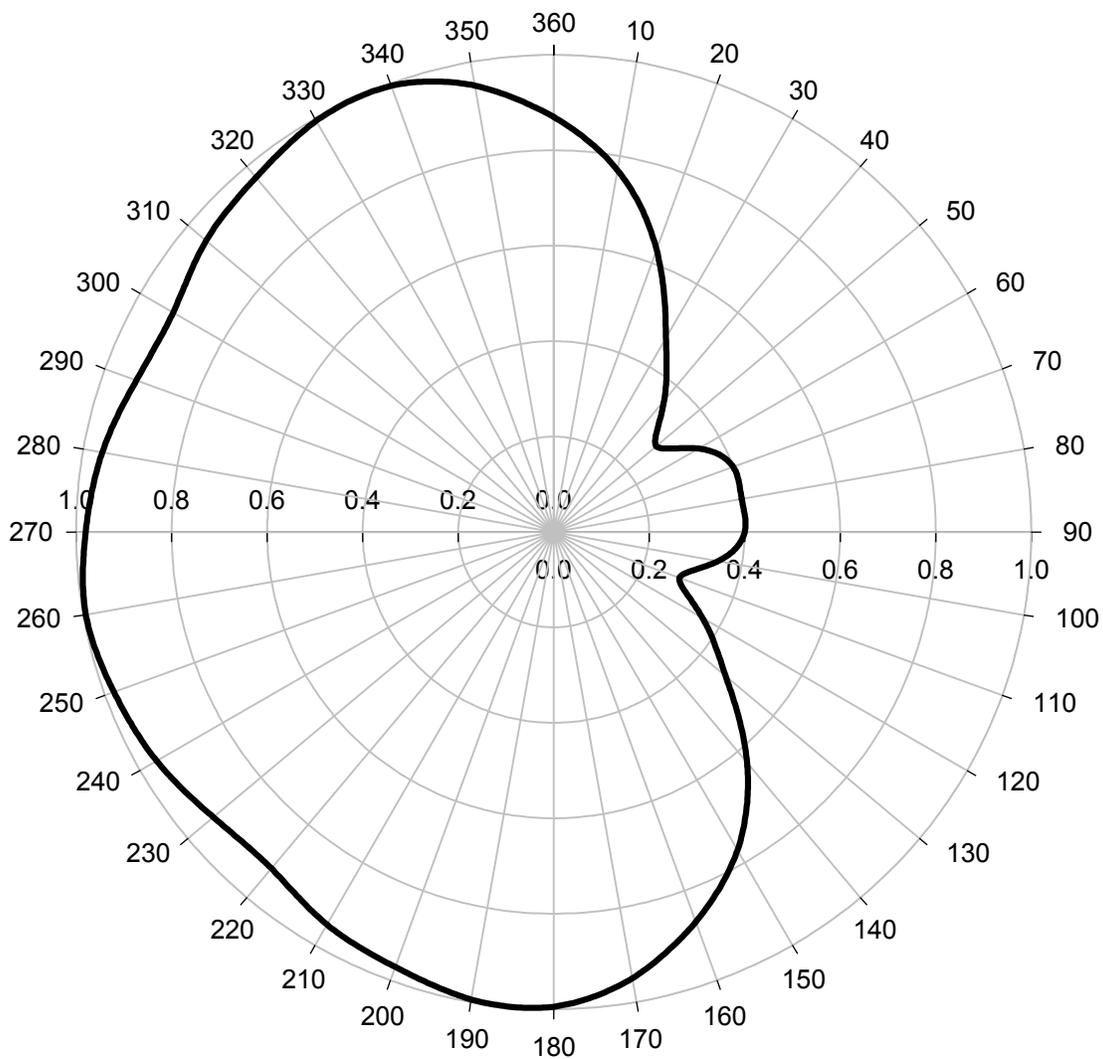
ANTENNA AND SUPPORTING STRUCTURE

STATION KBCB-DT

BELLINGHAM, WASHINGTON

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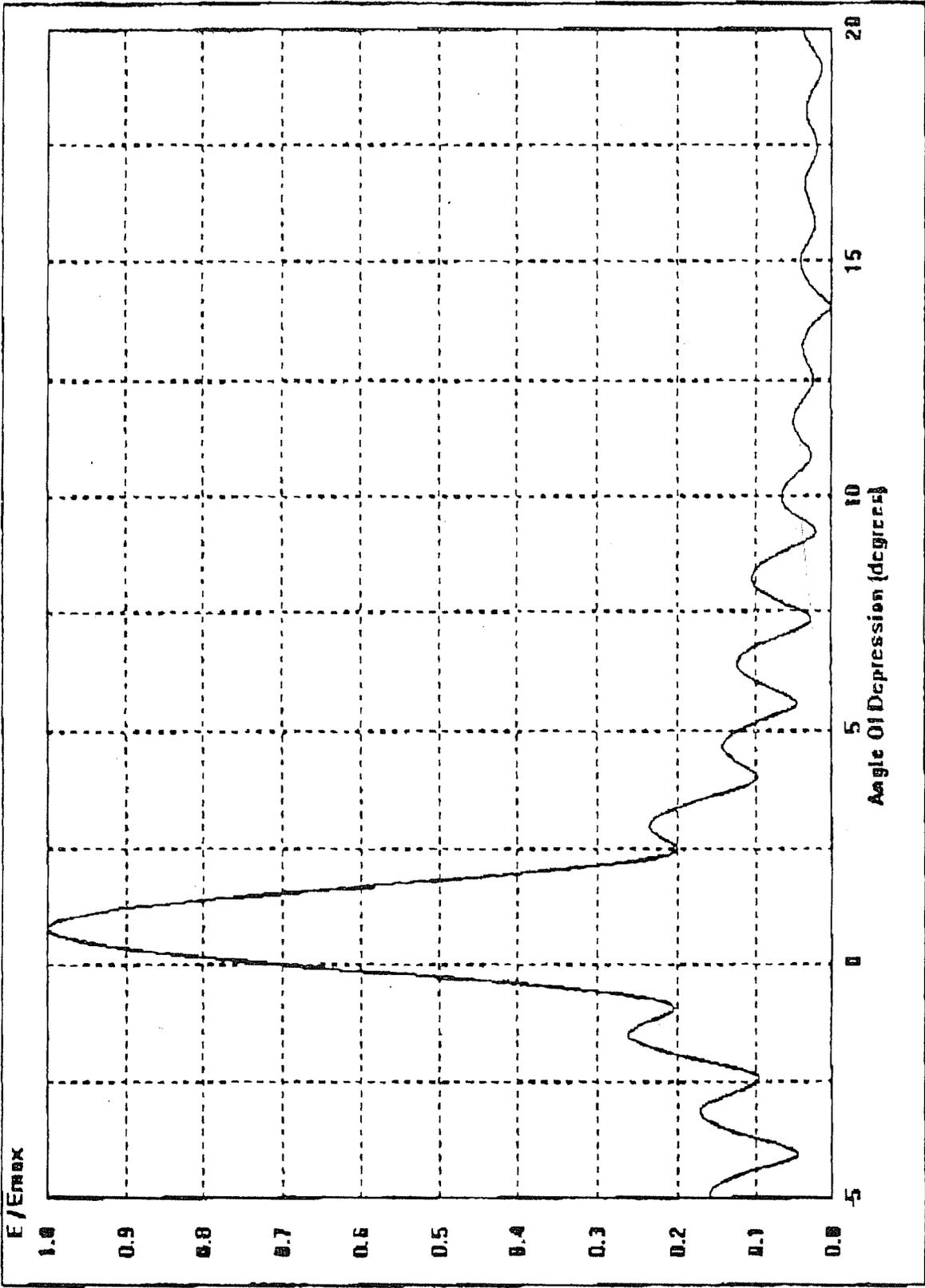
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



HORIZONTAL RELATIVE FIELD PATTERN

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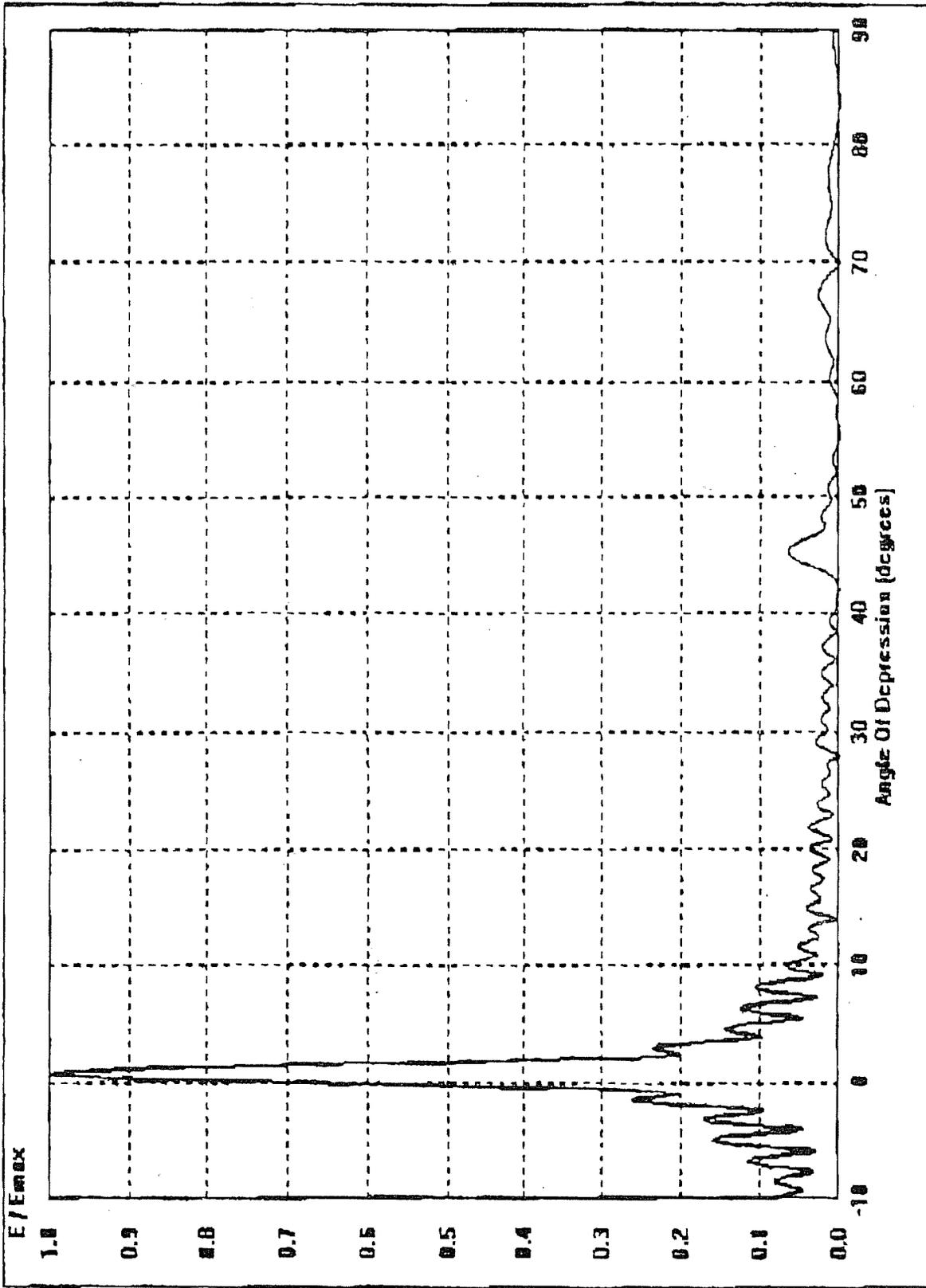
du Treil, Lundin & Rackley, Inc. Sarasota, Florida



RD32U Elevation Radiation Pattern

Beam Tilt: 0.75°

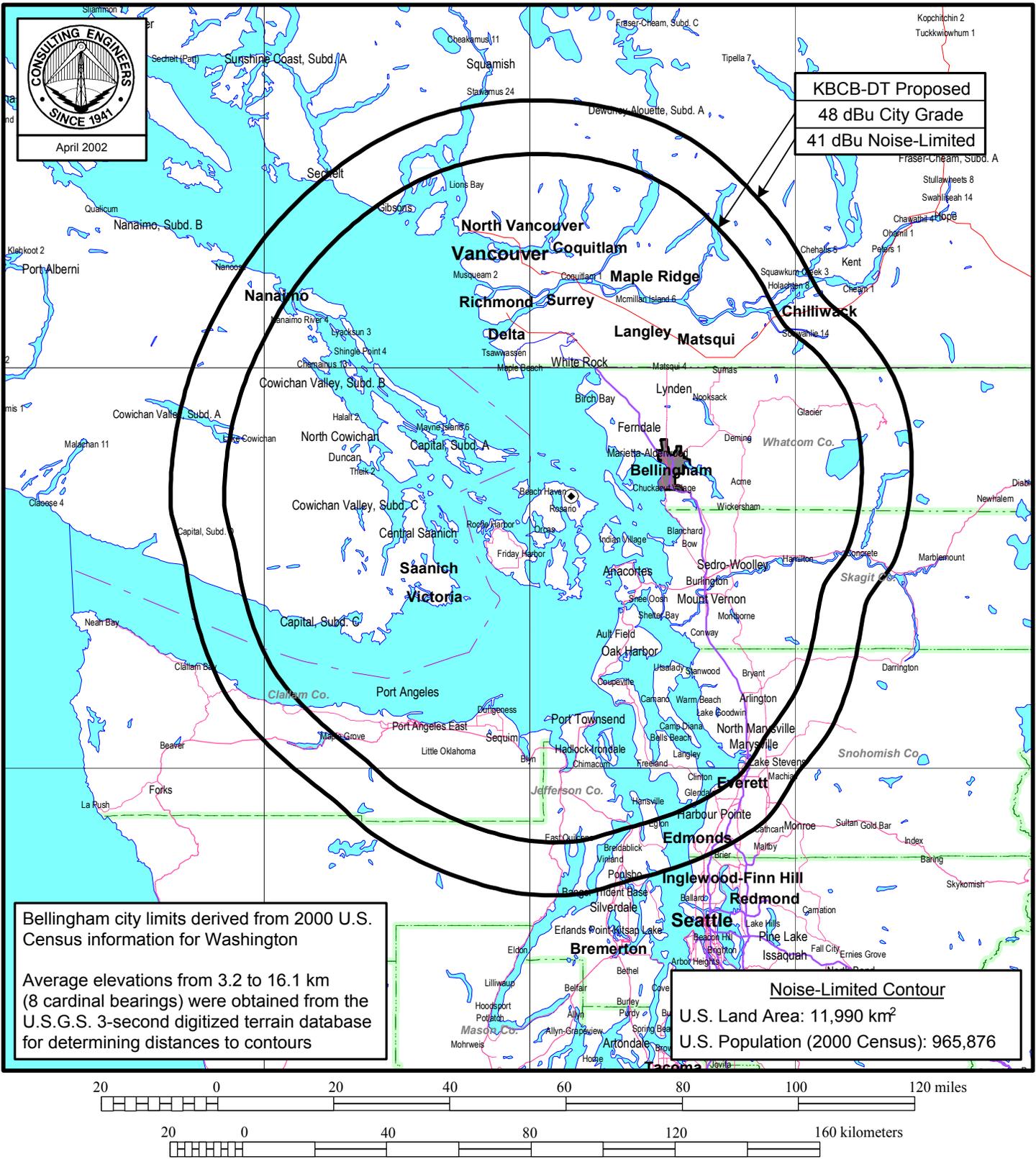
Vertical Gain at beam peak: 15.4 dBd



RD32U Elevation Radiation Pattern

Beam Tilt: 0.75°
Vertical Gain at beam peak: 15.4 dBd

Figure 3



PREDICTED F(50,90) COVERAGE CONTOURS

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