

ENGINEERING STATEMENT
IN SUPPORT OF MODIFICATION OF CONSTRUCTION PERMIT
BMPCDT-20060106AAF
FOR THE PROPOSED DIGITAL TV OPERATION OF
KVOS-DT, BELLINGHAM, WASHINGTON
CHANNEL 35 560 KW 752 METERS
JUNE 2008

This engineering statement has been prepared on behalf of Newport Television LLC, licensee of TV station KVOs-TV, Bellingham, Washington, in support of modification of its construction permit (BPCDT-20060106AAF) for post-transition digital TV (DTV) operation on Channel 35.

At present KVOs-TV, Facility ID Number 35862, operates its analog TV facilities on Channel 12 (204-210 MHz) with 234 kW effective radiated power (ERP) and 722 meters antenna height above average terrain (HAAT) using a non-directional TV antenna. KVOs-TV also holds a construction permit (CP) to operate its digital TV facility on Channel 35 (596-602 MHz) with 580 kW ERP, 799 meters HAAT and a directional TV antenna. The Commission has allotted Channel 35 with 612 kW ERP and 722 meters HAAT. KVOs-TV is filing the instant application to modify its CP to operate with 560 kW ERP and 752 meters HAAT from a different antenna site. The noise limited contour (41 dBu), based on the Appendix B facilities, extends on the average of 121.7 km in 36 azimuth directions and covers 46,527 square km area. The proposed noise limited contour based on 560 kW ERP and 752 meters HAAT would extend average of 121.4 km in 36 azimuth directions and cover 46,331 square km area. Therefore, it is believed the proposed KVOs-DT operation complies with Section 73.622(f)(5) of the Commission's rules. However, a waiver of the rule is deemed necessary, it is hereby requested.

The following information provides pertinent data for the proposed KVOs-DT operation.

Name of the Licensee: Newport Television LLC

Station Location: WA-Bellingham
Channel: 35

Hours of Operation: Unlimited

Transmitter: Type Accepted

Antenna Type: Dielectric, TFU-18GTH O4

Beam Tilt: None

Antenna Coordinates: North Latitude: 48 deg 41 min 15 sec
West Longitude: 122 deg 21 min 43 sec

Transmitter output power: As required to achieve authorized ERP

Maximum effective radiated power (Average): 560 kW
27.48 dBk

Elevation of site above mean sea level: 792 meters

Overall height of the tower above ground: 174 meters

Height of radiation center above ground (meters): 164 meters

Height of radiation center above mean sea level (meters): 956 meters

Height of radiation center above average terrain (meters): 752 meters

Response to questions listed on the FCC Form 301, Section III-D-DTV

Engineering

Question 1. (a)

KVOS-TV will operate its DTV operation on Channel 35 as established in 47 C.F.R. Section 73.622.

Question 1. (d)

KVOS-TV is proposing to modify its CP to operate from new antenna site. The proposed noise limited contour would extend beyond the facilities established in

Appendix B of the Seventh Report and Order (MB Docket No. 87-268). However, an interference study conducted (see attached Table I) according to the FCC OET Bulletin 69 indicates the proposed KVOs-DT operation would not cause any interference to other DTV stations exceeding the Commission's guidelines.

Question 1. (e)

The proposed DTV operation would serve 2,032,259 people within the noise limited service area as compared to 1,644,000 predicted population defined in the new DTV Table in Appendix B. As such, KVOs-DT proposed noise limited contour would serve 388,259 more people than the Appendix B population.

Question 2.

The attached environmental statement demonstrates that there will not be any significant environmental impact from the proposed DTV operation in accordance with 47 C.F.R. Section 73.1307.

Question 3.

The attached map shows the proposed KVOs-DT contour will encompass the allotted principal community of Bellingham, Washington (see Figure 1).

Question 4.

The proposed KVOs-DT facility complies with Section 73.1030 of the Commission's rules; therefore, notification to radio astronomy installations, radio receiving installations and FCC monitoring stations is not required.

Question 5.

KVOS-TV would be filing a request with the FAA for the construction of proposed tower. After receiving an approval from the FAA, KVOS-TV would register its tower with the Commission.

Table I

TW Census data selected 2000

Post Transition Data Base Selected /space/software/cdbb/pt_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-17-2008 Time: 18:40:17

Record Selected for Analysis

KVOS USERRECORD-01 BELLINGHAM WA US
 Channel 35 ERP 560. kW HAAT 753. m RCAMSL 00956 m
 Latitude 048-41-15 Longitude 0122-21-43
 Status APP Zone 2 Border
 Last update Cutoff date Docket
 Comments
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits
 Channel 35 ERP = 560.00 HAAT = 753.

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	554.802	791.7	123.8
45.0	560.000	608.5	115.5
90.0	560.000	666.7	118.3
135.0	560.000	615.0	115.8
180.0	550.803	839.1	125.4
225.0	550.611	841.4	125.5
270.0	549.706	852.4	125.8
315.0	553.601	805.8	124.3

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KVOS 35 BELLINGHAM WA USERRECORD01

and station

SHORT TO: KVOS-TV 35 BELLINGHAM WA BMPCDT 20060106AAF
 048-40-50 0122-50-22
 Req. separation 223.7 Actual separation 35.2 Short 188.5 km

SHORT TO: KVOS-TV 35 BELLINGHAM WA DTVPLN DTVPL1310
 48 -40-40 122 -49-48
 Req. separation 223.7 Actual separation 34.5 Short 189.2 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility is 33.0km from FCC Monitoring station at
 Ferndale WA
 Bearing: 334.9 degrees ERP: 560.00 kW HAAT: 807.5 m
 Field = 58.9 mV/m

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance
 Distance to border = 34.7km

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Call	City/State	ARN
35	KVOS	BELLINGHAM WA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan No.	Call	City/State	Dist(km)	Status	Application Ref.
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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
35	KVOS	BELLINGHAM WA	USERRECORD-01

Stations Potentially Affecting This Station

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

Result key: 1
 Scenario 1 Affected station 1
 Before Analysis

Results for: 35A WA BELLINGHAM USERRECORD01 APP
 HAAT 753.0 m, ATV ERP 560.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	2062708	47097.3
not affected by terrain losses	2032259	43180.2
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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ENVIRONMENTAL PROTECTION ACT

According to the applicant, the proposed site is not located near any known wilderness area, wildlife preserve or Indian religious site. The proposed TV facilities will not affect or jeopardize the continued existence of any threatened or endangered species or their critical habitats.

The proposed TV facilities are not located in a flood plain area.

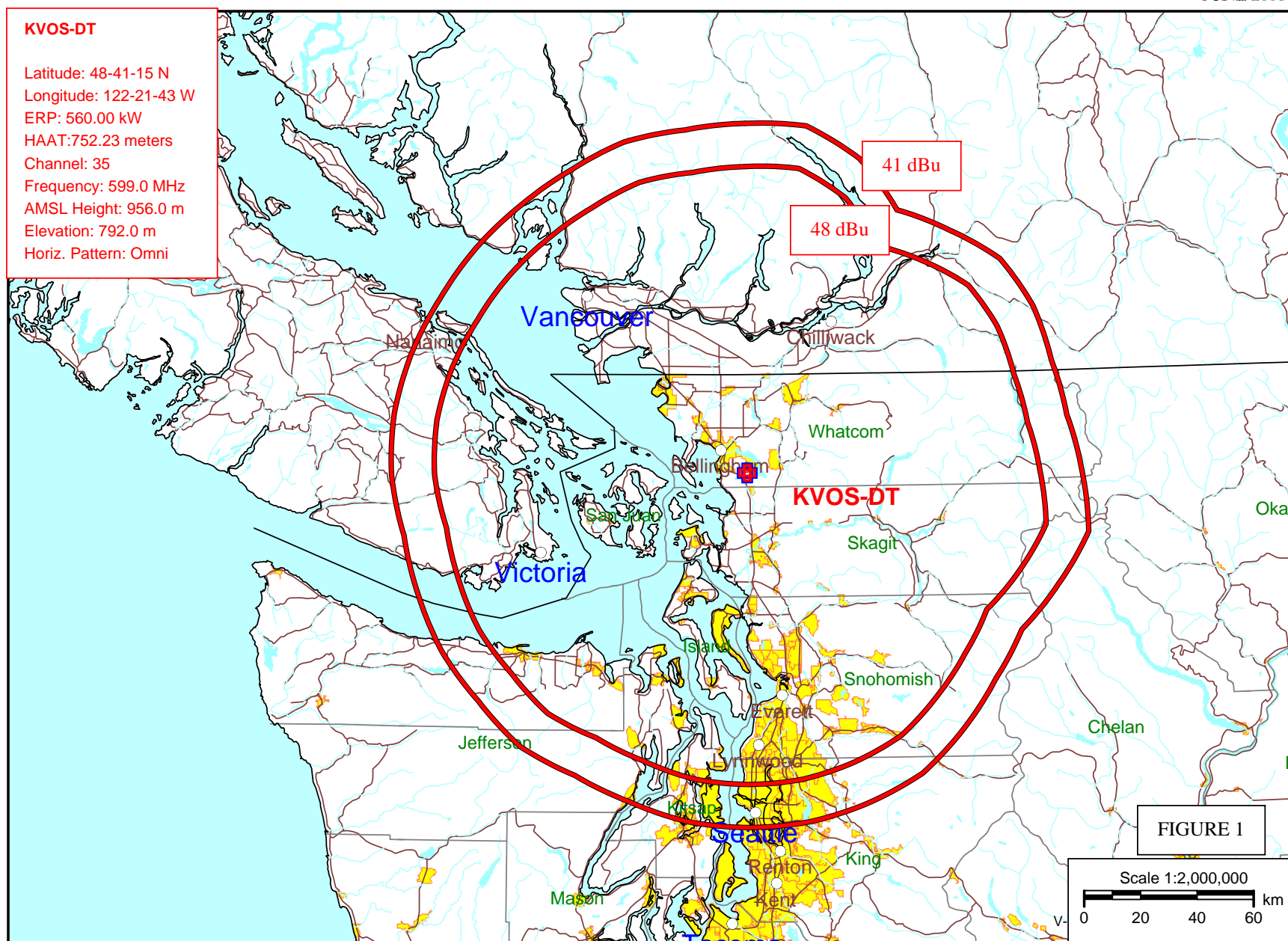
Construction of a TV tower and a building to house the transmitter and associated equipment at the site are proposed. After the construction, the area surrounding the site will be restored, as close as possible, to its original condition. Therefore, the construction of the proposed TV facility does not involve significant changes in the surface features of the site. There is no proposal to equip the tower with high intensity white lights unless required by the FAA. However, the site is not located near any residential neighborhood.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 560 kW and a radiation center of 164 meters above ground level, the proposed Channel 35 DTV operation would have a maximum of 28.5 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.2 in the downward direction.

The Commission's guidelines for TV Channel 35 are $1,987 \mu\text{W}/\text{cm}^2$ for the occupational/controlled, and $397 \mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the KVOS-DT tower would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, KVOS-DT will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.



COMPUTED CONTOURS FOR THE PROPOSED DTV OPERATION OF KVOS-DT, BELLINGHAM, WASHINGTON