ENGINEERING EXHIBIT

"Maximization" Application to Modify Digital Television Station Construction Permit

prepared for

The CW Television Stations Inc.
KSTW-DT Tacoma, WA
Facility ID 23428
Ch. 11 100 kW 276 m

The CW Television Stations Inc. ("CW Television") is the licensee of television station KSTW(TV), analog Channel 11 and digital Channel 36, Tacoma, WA. A Construction Permit ("CP", BPCDT-20080314AAV) authorizes construction of the KSTW-DT post-transition digital facility on Channel 11, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. *CW Television* herein seeks to modify the CP to expand the KSTW-DT post-transition Channel 11 digital facility. The instant application is intended to be filed by June 20, 2008 in response to the FCC's lifting of the August 3, 2004 "freeze" concerning expansion in service area.[1]

The current CP authorizes operation with an effective radiated power ("ERP") of 12.5 kW at 276 meters antenna height above average terrain ("HAAT"), with a directional antenna. An increase in ERP to 100 kW is proposed herein. No other changes are proposed.

The proposed digital Channel 11 operation will employ the existing directional shared antenna system licensed for KSTW's analog Channel 11 and digital Channel 36. The antenna is a horizontally polarized Dielectric model TUV-24GTH/8HV-R 4BP250/P220. The directional antenna's azimuthal pattern is depicted in **Figure 1**. **Figures 2** and **2A** provide the theoretical vertical plane (elevation) pattern[2]. The antenna is top-mounted on the existing KSTW antenna

[1] Public Notice *"Commission Lifts the Freeze On the Filing of Maximization Applications and Petitions for Digital Channel Substitutions, Effective Immediately"* DA 08-1213, released May 30, 2008.

[2] These patterns are supplied in terms of relative field. In recent years, FCC Staff have not required pattern data in dBk format however such patterns are available upon request.

supporting structure, having FCC Antenna Structure Registration number 1033248. No change to the overall structure height and no tower work is required to carry out this proposal.

A map is supplied as **Figure 3,** which depicts the standard predicted coverage contours. This map includes the boundaries of Tacoma, KSTW-DT's principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 43 dBμ contour.

The proposed KSTW-DT facility's predicted service population provides a 101.8 percent match of the Appendix B facility, as detailed in the table below.

Post-Transition Population Summary

Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	3,665,619	3,762,226
Not affected by terrain losses	3,628,339	3,693,468
Lost to all interference	0	0
Net DTV Service	**3,628,339**	**3,693,468**
Match of Appendix B	---	**101.80%**

A detailed interference study per OET Bulletin 69[3] shows that the proposal complies with the 0.5 percent limit of new interference caused to the Appendix B facilities and current post-transition authorizations of pertinent nearby stations. The interference study output report is provided as **Table 1**. Protection requirements towards authorized Class A stations are also satisfied.

The nearest FCC monitoring station is 150 km distant at Ferndale, WA. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no AM stations within 3.2 kilometers of the site, based on information contained within the Commission's database. The site location is within the Canadian coordination zone (102 km to the Canada border), thus further

[3]FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard cell size of 2 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission's implementation of OET-69 show excellent correlation.

international coordination may be necessary beyond that undertaken for approval of Appendix B parameters.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposal will involve use of an existing transmitting antenna. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. No tower construction or change in structure height is proposed. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 20 percent antenna relative field in downward elevations (pattern data shows less than 20 percent relative field at angles 10 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 4.0 $\mu W/cm^2$, which is 2.0 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

Certification

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.

Joseph M. Davis, P.E.
June 16, 2008

Chesapeake RF Consultants, LLC
11993 Kahns Road
Manassas, VA 20112
703-650-9600

List of Attachments

Figure 1	Antenna Horizontal Plane Pattern
Figure 2, 2A	Antenna Vertical Plane (Elevation) Pattern
Figure 3	Proposed Coverage Contours
Table 1	OET Bulletin 69 Interference Study
Form 301	Saved Version of Engineering Sections from FCC Form at Time of Upload

This material was entered June 16, 2008 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

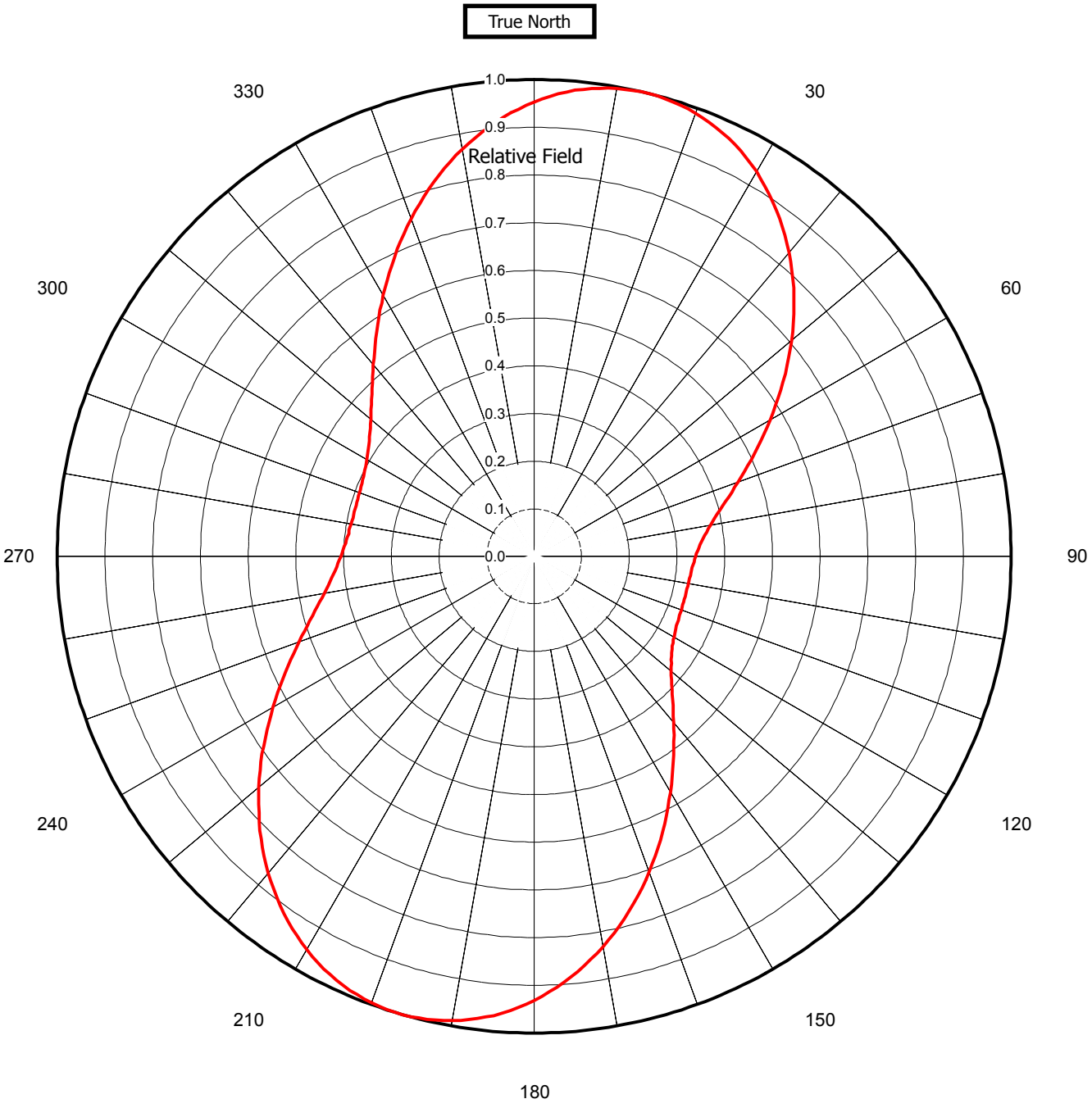
Dielectric

Figure 1
Antenna Horizontal Plane Pattern

Proposal Number	**DCA-9456**	Revision:	**2**
Date	**18-Dec-03**		
Call Letters	**KSTW**	Channel	**11**
Location	**Tacoma, WA**		
Customer			
Antenna Type	**TUV-24GTH/8HV-R 4BP250/P220**		

AZIMUTH PATTERN

Gain	**2.20**	**(3.42 dB)**	
Calculated / Measured	**Calculated**		
Frequency	**201.00 MHz**		
Drawing #	**TUV-P220-2010**		



Proposal Number	**DCA-9456**	Revision:	**2**
Date	**18-Dec-03**		
Call Letters	**KSTW**	Channel	**11**
Location	**Tacoma, WA**		
Customer			
Antenna Type	**TUV-24GTH/8HV-R 4BP250/P220**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**8.50**	**(9.29 dB)**	Beam Tilt	**1.00 deg**
RMS Gain at Horizontal	**8.00**	**(9.03 dB)**	Frequency	**201.00 MHz**
Calculated / Measured	**Calculated**		Drawing #	**8V085100-90**

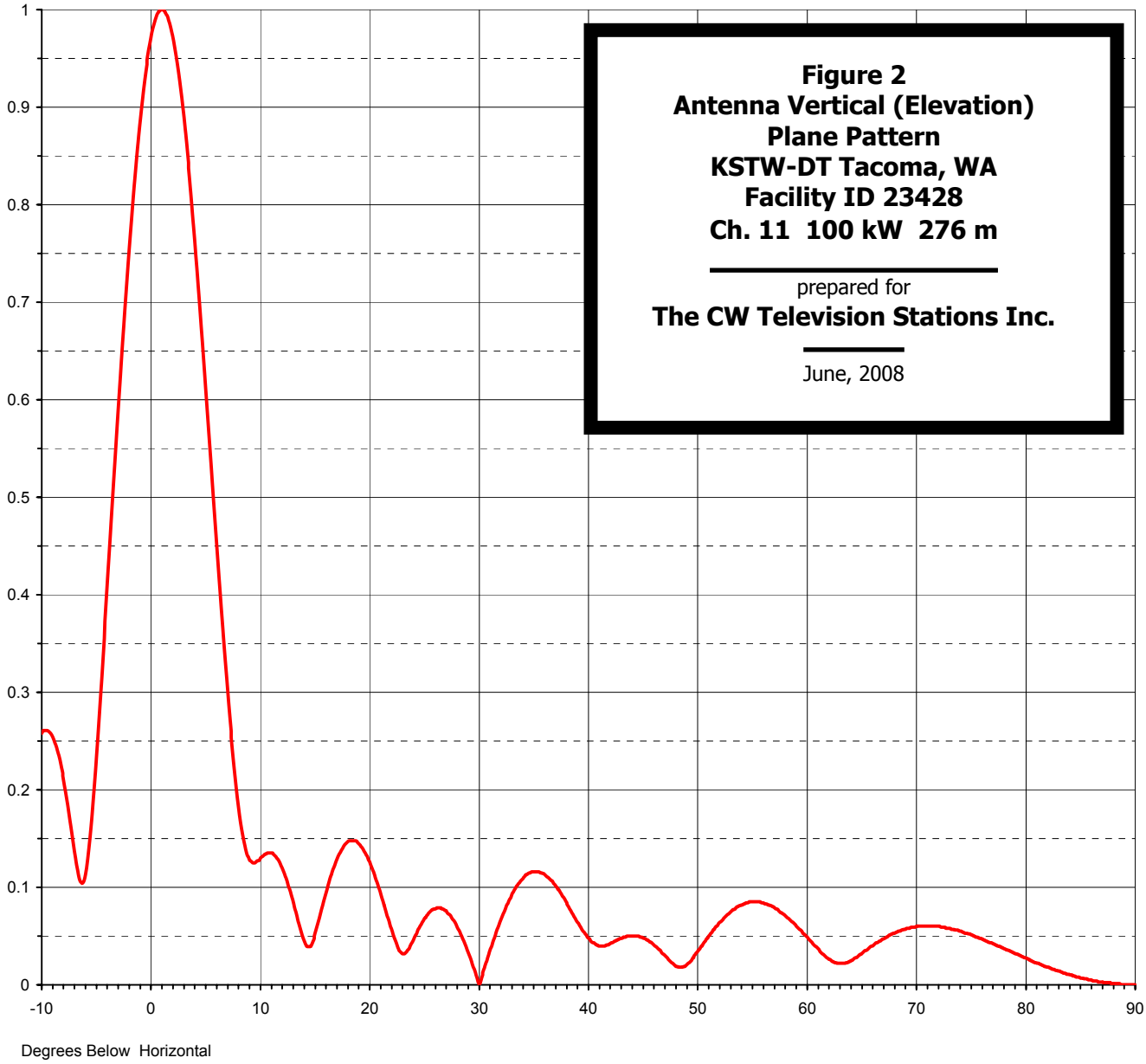


Figure 2
Antenna Vertical (Elevation)
Plane Pattern
KSTW-DT Tacoma, WA
Facility ID 23428
Ch. 11 100 kW 276 m

prepared for
The CW Television Stations Inc.

June, 2008

Proposal Number	**DCA-9456**	Revision:	**2**
Date	**18-Dec-03**		
Call Letters	**KSTW**	Channel	**11**
Location	**Tacoma, WA**		
Customer			
Antenna Type	**TUV-24GTH/8HV-R 4BP250/P220**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**8.50**	**(9.29 dB)**	Beam Tilt	**1.00 deg**
RMS Gain at Horizontal	**8.00**	**(9.03 dB)**	Frequency	**201.00 MHz**
Calculated / Measured	**Calculated**		Drawing #	**8V085100**

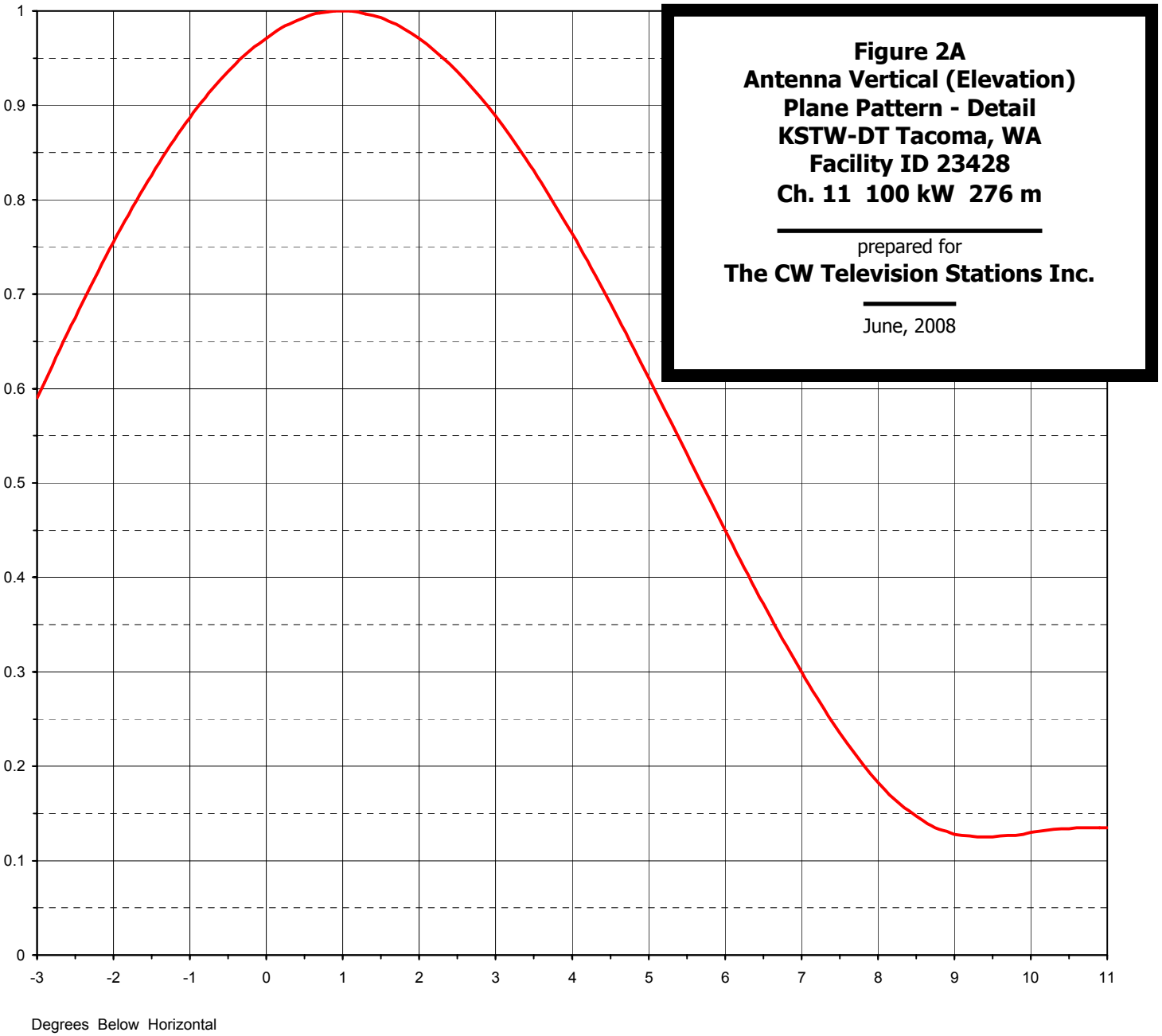
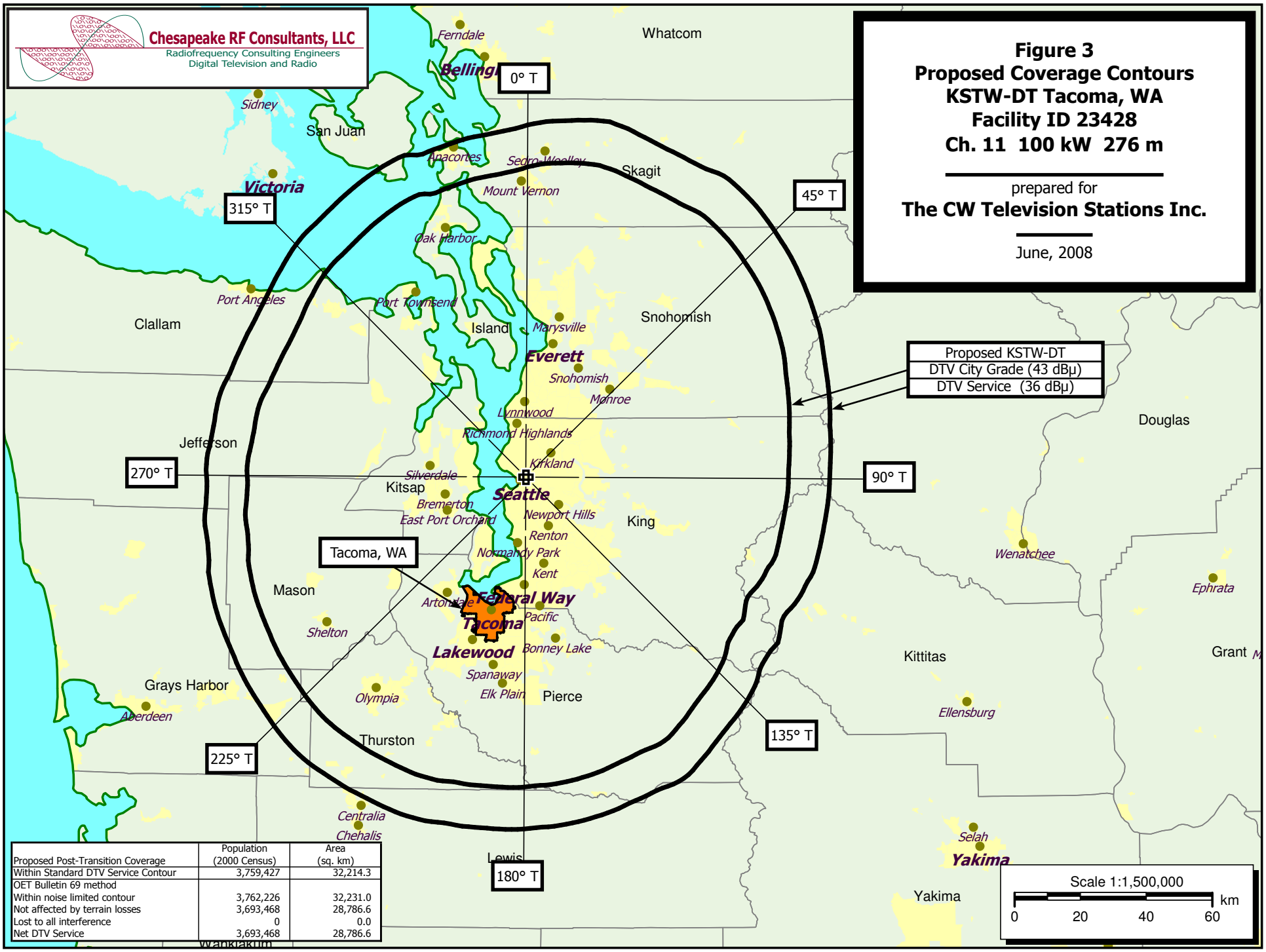


Figure 2A
Antenna Vertical (Elevation)
Plane Pattern - Detail
KSTW-DT Tacoma, WA
Facility ID 23428
Ch. 11 100 kW 276 m

prepared for
The CW Television Stations Inc.

June, 2008



Proposed Post-Transition Coverage	Population (2000 Census)	Area (sq. km)
Within Standard DTV Service Contour	3,759,427	32,214.3
OET Bulletin 69 method		
Within noise limited contour	3,762,226	32,231.0
Not affected by terrain losses	3,693,468	28,786.6
Lost to all interference	0	0.0
Net DTV Service	3,693,468	28,786.6

Table 1 KSTW-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 1 of 4)

```
TW Census data selected 2000
Post Transition Data Base Selected /space/software/cdbs/pt_tvdb.sff

            TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-16-2008    Time: 21:41:05

Record Selected for Analysis

KSTW-DT  USERRECORD-01              TACOMA               WA US
Channel 11 ERP 100.    kW   HAAT  275. m  RCAMSL 00311 m
Latitude 047-36-56  Longitude 0122-18-29
Status APP       Zone 2    Border
Dir Antenna Make CDB  Model 00000000085316  Beam tilt N  Ref Azimuth 0.
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 meets maximum height/power limits

   Azimuth      ERP        HAAT   36.0 dBu F(50,90)
    (Deg)       (kW)       (m)        (km)
     0.0       90.821     236.8      106.7
    45.0       58.982     287.7      106.0
    90.0       11.424     267.1       92.0
   135.0       17.223     268.6       95.2
   180.0       86.676     241.1      106.6
   225.0       65.610     293.3      107.3
   270.0       16.403     308.6       96.7
   315.0       23.571     299.9       99.0



                  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 quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance
Distance to border =   101.6km

Proposed facility is beyond the Mexican coordination distance
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Table 1 KSTW-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 2 of 4)

```
 Proposed station is OK toward AM broadcast stations

*************************************************************************
                       Start of Interference Analysis


              Proposed Station
Channel     Call         City/State              ARN
   11      KSTW-DT    TACOMA WA                  USERRECORD01

     Stations Potentially Affected by  Proposed Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 11   KOAB-TV  BEND OR                  400.4  LIC    BLEDT     -20060823AAP
 11   KOAB-TV  BEND OR                  400.4  PLN    DTVPLN    -DTVP0339
 11   KFFX-TV  PENDLETON OR             386.2  PLN    DTVPLN    -DTVP0341
 11   KFFX-TV  PENDLETON OR             386.2  CP     BPCDT     -20080331ADS

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

     Analysis of Interference to Affected Station   1


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   11      KOAB-TV    BEND OR                   BLEDT     -20060823AAP

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 10   KOPB-TV  PORTLAND OR              195.4  CP     BPEDT     -20080215ABK
 10   KOPB-TV  PORTLAND OR              195.4  PLN    DTVPLN    -DTVP0288
 11   KCBY-TV  COOS BAY OR              237.3  CP     BPCDT     -20080227ACW
 11   KCBY-TV  COOS BAY OR              237.3  PLN    DTVPLN    -DTVP0340
 11   KFFX-TV  PENDLETON OR             318.9  PLN    DTVPLN    -DTVP0341
 11   KFFX-TV  PENDLETON OR             318.9  CP     BPCDT     -20080331ADS
 11   KSTW     TACOMA WA                400.3  PLN    DTVPLN    -DTVP0355
 12   KDRV     MEDFORD OR               217.3  PLN    DTVPLN    -DTVP0399
 12   KDRV     MEDFORD OR               217.3  CP     BPCDT     -20080215APP
 12   KPTV     PORTLAND OR              195.5  CP     BPCDT     -20080208ACB
 12   KPTV     PORTLAND OR              195.5  PLN    DTVPLN    -DTVP0400
 11   KSTW-DT  TACOMA WA                400.4  APP    USERRECORD-01
 Proposal causes no interference

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     Analysis of Interference to Affected Station   2


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   11      KOAB-TV    BEND OR                   DTVPLN    -DTVP0339

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 10   KOPB-TV  PORTLAND OR              195.4  CP     BPEDT     -20080215ABK
 10   KOPB-TV  PORTLAND OR              195.4  PLN    DTVPLN    -DTVP0288
 11   KCBY-TV  COOS BAY OR              237.3  CP     BPCDT     -20080227ACW
 11   KCBY-TV  COOS BAY OR              237.3  PLN    DTVPLN    -DTVP0340
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Table 1 KSTW-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 3 of 4)

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 11   KFFX-TV  PENDLETON OR              318.9  PLN    DTVPLN    -DTVP0341
 11   KFFX-TV  PENDLETON OR              318.9  CP     BPCDT     -20080331ADS
 11   KSTW     TACOMA WA                 400.3  PLN    DTVPLN    -DTVP0355
 12   KDRV     MEDFORD OR                217.3  PLN    DTVPLN    -DTVP0399
 12   KDRV     MEDFORD OR                217.3  CP     BPCDT     -20080215APP
 12   KPTV     PORTLAND OR               195.5  CP     BPCDT     -20080208ACB
 12   KPTV     PORTLAND OR               195.5  PLN    DTVPLN    -DTVP0400
 11   KSTW-DT  TACOMA WA                 400.4  APP    USERRECORD-01
 Proposal causes no interference

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     Analysis of Interference to Affected Station   3


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   11      KFFX-TV    PENDLETON OR             DTVPLN    -DTVP0341

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 10   KWSU-TV  PULLMAN WA               140.5  PLN    DTVPLN    -DTVP0299
 10   KWSU-TV  PULLMAN WA               140.5  CP     BPEDT     -20080303ABZ
 11   KUFM-TV  MISSOULA MT              333.5  CP     BPEDT     -20080219ALG
 11   KUFM-TV  MISSOULA MT              333.5  PLN    DTVPLN    -DTVP0329
 11   KUFM-TV  MISSOULA MT              333.5  APP    BMPEDT    -20080611ACB
 11   KOAB-TV  BEND OR                  318.9  LIC    BLEDT     -20060823AAP
 11   KOAB-TV  BEND OR                  318.9  PLN    DTVPLN    -DTVP0339
 11   KSTW     TACOMA WA                386.2  PLN    DTVPLN    -DTVP0355
 12   KUID-TV  MOSCOW ID                132.3  PLN    DTVPLN    -DTVP0374
 12   KUID-TV  MOSCOW ID                132.3  LIC    BLEDT     -20060804AFK
 11   KSTW-DT  TACOMA WA                386.2  APP    USERRECORD-01
 Proposal causes no interference

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     Analysis of Interference to Affected Station   4


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   11      KFFX-TV    PENDLETON OR             BPCDT     -20080331ADS

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 10   KWSU-TV  PULLMAN WA               140.5  PLN    DTVPLN    -DTVP0299
 10   KWSU-TV  PULLMAN WA               140.5  CP     BPEDT     -20080303ABZ
 11   KUFM-TV  MISSOULA MT              333.5  CP     BPEDT     -20080219ALG
 11   KUFM-TV  MISSOULA MT              333.5  PLN    DTVPLN    -DTVP0329
 11   KUFM-TV  MISSOULA MT              333.5  APP    BMPEDT    -20080611ACB
 11   KOAB-TV  BEND OR                  318.9  LIC    BLEDT     -20060823AAP
 11   KOAB-TV  BEND OR                  318.9  PLN    DTVPLN    -DTVP0339
 11   KSTW     TACOMA WA                386.2  PLN    DTVPLN    -DTVP0355
 12   KUID-TV  MOSCOW ID                132.3  PLN    DTVPLN    -DTVP0374
 12   KUID-TV  MOSCOW ID                132.3  LIC    BLEDT     -20060804AFK
 11   KSTW-DT  TACOMA WA                386.2  APP    USERRECORD-01
 Proposal causes no interference
```

Table 1 KSTW-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 4 of 4)

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     Analysis of Interference to Affected Station   5


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   11      KSTW-DT    TACOMA WA                USERRECORD-01

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 11   KOAB-TV  BEND OR                  400.4  LIC    BLEDT     -20060823AAP
 11   KOAB-TV  BEND OR                  400.4  PLN    DTVPLN    -DTVP0339
 11   KFFX-TV  PENDLETON OR             386.2  PLN    DTVPLN    -DTVP0341
 11   KFFX-TV  PENDLETON OR             386.2  CP     BPCDT     -20080331ADS

 Total scenarios =   1


Result key:        1
Scenario        1  Affected station        5
Before Analysis

Results for: 11A WA TACOMA              USERRECORD01           APP
   HAAT  275.0 m, ATV ERP  100.0 kW
                                    POPULATION   AREA (sq km)
   within Noise Limited Contour     3762226      32231.0
   not affected by terrain losses   3693468      28786.6
   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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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED
```

SECTION III-D - DTV Engineering

Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Pre-Transition Certification Checklist: An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to change pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

Post-Transition Expedited Processing. An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

1.	The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:		
	(a)	It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.	(•) Yes ( ) No
	(b)	It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.	( ) Yes ( ) No
	(c)	It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.	( ) Yes ( ) No
	(d)	It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").	( ) Yes (•) No ( ) N/A
	(e)	It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.	(•) Yes ( ) No ( ) N/A
2.	The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Applicant must **submit the Exhibit** called for in Item 13.		(•) Yes ( ) No
3.	Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.		(•) Yes ( ) No
4.	The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.		(•) Yes ( ) No
5.	The antenna structure to be used by this facility has been registered by the Commission and will not require registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.		(•) Yes ( ) No

SECTION III-D - DTV Engineering

TECHNICAL SPECIFICATIONS
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1.	Channel Number: DTV 11 Analog TV, if any 11	
2.	Zone: ( ) I (•) II ( ) III	
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 47 Minutes 36 Seconds 56 (•) North ( ) South Longitude: Degrees 122 Minutes 18 Seconds 29 (•) West ( ) East	
4.	Antenna Structure Registration Number: 1033248 ☐ Not Applicable ☐ Notification filed with FAA	
5.	Antenna Location Site Elevation Above Mean Sea Level:	125.5 meters
6.	Overall Tower Height Above Ground Level:	194.1 meters
7.	Height of Radiation Center Above Ground Level:	185.8 meters
8.	Height of Radiation Center Above Average Terrain :	275.7 meters

9. Maximum Effective Radiated Power (average power): 100 kW

10. Antenna Specifications:

a. Manufacturer DIE Model TUV-24GTH/8HV-R 4BP250/P220

b. Electrical Beam Tilt:
1 degrees ☐ Not Applicable

c. Mechanical Beam Tilt:
degrees toward azimuth
degrees True ☑ Not Applicable
Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit 42]

d. Polorization:
◉ Horizontal ○ Circular ○ Elliptical

e. Directional Antenna Relative Field Values: ☐ Not applicable (Nondirectional)

[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.]
[Relative Field Values]

10e. Directional Antenna Relative Field Values

[Fill in this subform for a composite directional (not off-the-shelf) antenna, only.]

e. Directional Antenna Relative Field Values:

Rotation (Degrees): 0 ☑ No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.953	10	0.996	20	0.989	30	0.931	40	0.831	50	0.705
60	0.572	70	0.455	80	0.375	90	0.338	100	0.329	110	0.329
120	0.338	130	0.375	140	0.455	150	0.572	160	0.705	170	0.831
180	0.931	190	0.989	200	0.996	210	0.953	220	0.867	230	0.753
240	0.632	250	0.524	260	0.447	270	0.405	280	0.39	290	0.39
300	0.405	310	0.447	320	0.524	330	0.632	340	0.753	350	0.867
Additional Azimuths		14	1	196	1						

Relative Field Polar Plot

If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.** [Exhibit 43]

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616? ◉ Yes ○ No [Exhibit 44]

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** item 3 is answered "No.") [Exhibit 45]

13. **Environmental Protection Act. Submit in an Exhibit** the following: [Exhibit 46]

If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.

PREPARERS CERTIFICATION ON SECTION III MUST BE COMPLETED AND SIGNED.

SECTION III - PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOSEPH M. DAVIS, P.E.	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 6/16/2008	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 11993 KAHNS ROAD		
City MANASSAS	State or Country (if foreign address) VA	Zip Code 20112 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

Any specified rotation has already been applied to the plotted pattern.
Field strength values shown on a rotated pattern may differ from the listed values because intermediate azimuths are interpolated between entered azimuths.