

ENGINEERING EXHIBIT

“Maximization” Application for Post-Transition Digital Television Station Construction Permit prepared for

San Francisco Television Station KBCW Inc.
KBCW-DT San Francisco, CA
Facility ID 69619
Ch. 45 1000 kW 491 m

San Francisco Television Station KBCW Inc. (“KBCW”) is the licensee of television station KBCW(TV), analog Channel 44 and digital Channel 45, San Francisco, CA. The licensed digital facility employs an effective radiated power (“ERP”) of 400 kW at 446 meters antenna height above average terrain (“HAAT”), with a side-mounted directional antenna. KBCW will remain on its current Channel 45 for the post-transition period, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. *KBCW* herein seeks a Construction Permit to expand the KBCW-DT post-transition Channel 45 digital facility to 1000 kW ERP and 491 meters antenna HAAT. 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 KBCW analog and digital facilities are located at the shared Sutro Tower in San Francisco. Eleven other full-power television stations operate from Sutro Tower.

The proposed KBCW-DT Channel 45 antenna system, a Dielectric model TFU-19JSC/VP-R CT150 SP, will be side-mounted in place of the existing analog Channel 44 antenna on one of the three top masts on Sutro Tower. Elliptical polarization is proposed (15 percent vertical polarization). The maximum horizontally polarized ERP is 1000 kW, and the maximum vertically polarized ERP is 150 kW. The vertically polarized component will not exceed the horizontally polarized component at any azimuth. The directional antenna’s azimuthal patterns are depicted in

¹Public 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.

Figures 1 and 1A for horizontal and vertical polarization, respectively. **Figures 2 and 2A** provide the theoretical vertical plane (elevation) pattern².

The antenna will be installed on the existing Sutro Tower candelabra antenna supporting structure (FCC Antenna Structure Registration number 1001289), part of an overall replacement to the present top-mounted analog antennas. No change to the overall structure height will result from this proposal.

A map is supplied as **Figure 3**, which depicts the standard predicted coverage contours. This map includes the boundaries of San Francisco, KBCW-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 48 dBμ contour.

The proposed KBCW-DT facility's predicted service population provides a 105.2 percent match of the Appendix B facility, as detailed in the following table.

Post-Transition Population Summary		
Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	6,775,478	7,541,200
Not affected by terrain losses	6,182,743	6,705,119
Lost to all interference	176,924	389,359
Net DTV Service	6,005,819	6,315,760
Match of Appendix B	---	105.16%

A detailed interference study per OET Bulletin 69³ 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. **Pursuant to §73.616(e)(1), FCC processing of this**

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.

³FCC 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 cell size of 1 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.

proposal is requested on the basis of a 1 km cell size. The interference study output report is provided as **Table 1**. Protection requirements towards authorized Class A stations are also satisfied.

The proposed 1000 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 491 meters currently permitted by §73.622(f)(8)(i). Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. The total area within the proposed KBCW-DT 41 dBμ contour is 36,639 square kilometers, which does not exceed the 41,278 square kilometers within the Appendix B contour area associated with station KPIX-DT (Ch. 29, 1000 kW at 506 m, San Francisco, CA), co-located on Sutro Tower. Thus, the ERP specified herein is in compliance with §73.622(f)(5) of the Commission's Rules.

The nearest FCC monitoring station is 62 km distant at Livermore, CA. Using the FCC propagation curves, the proposed F(50,90) signal level at the monitoring station is 3.67 mV/m, which is below the 10 mV/m threshold of §73.1030(c) for further analysis. 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 beyond the border areas requiring international coordination.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed transmitting antenna and other digital television station antennas will be installed on an existing antenna support structure in place of the existing analog transmitting antenna arrangement. 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.

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 10 percent antenna relative field in downward elevations (pattern data shows less than 10 percent relative field at angles 15 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 $5.5 \mu\text{W}/\text{cm}^2$, which is 1.2 percent of the general population/uncontrolled maximum permitted exposure limit. This is 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.

The environmental subjects listed under §1.1307(a) are not considered herein. Section 1.1307(a) matters are covered by the structure owner as certified in the associated FCC Antenna Structure Registration number 1001289.

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 1, 2008

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

List of Attachments

Figure 1, 1A	Antenna Horizontal Plane Pattern
Figure 2, 2A	Antenna Vertical Plane (Elevation) Pattern
Figure 3	Proposed Coverage Contours
Figure 4	Coverage Contour Comparison
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 1, 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.

Figure 1
Antenna Horizontal Plane
Pattern - Horizontal Polarization

AZIMUTH PATTERN

Gain

1.50

(1.76 dB)

Calculated / Measured

Calculated

Frequency

659.00 MHz

Drawing #

CT150-SP-45

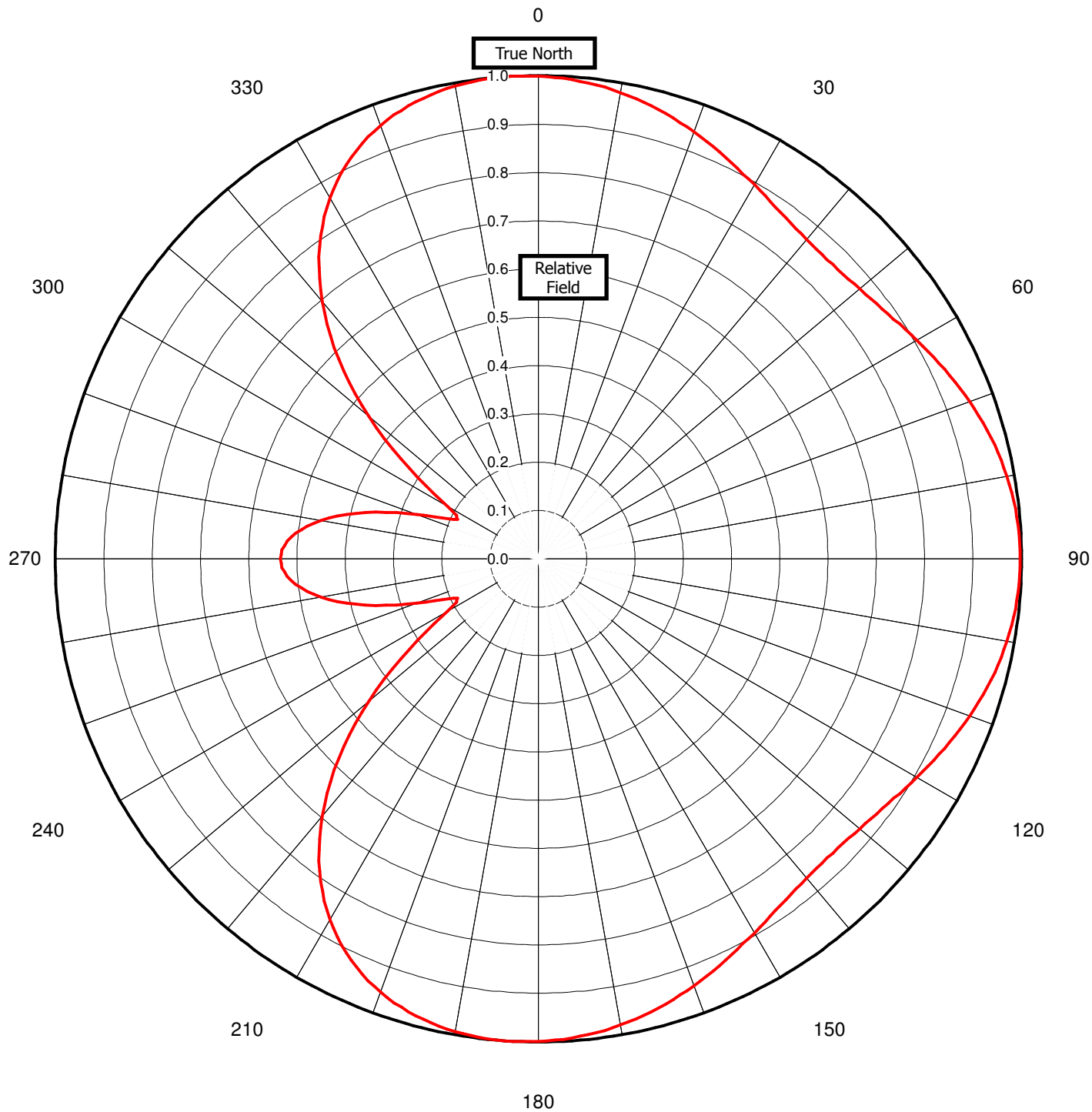


Figure 1A
Antenna Horizontal Plane
Pattern - Vertical Polarization

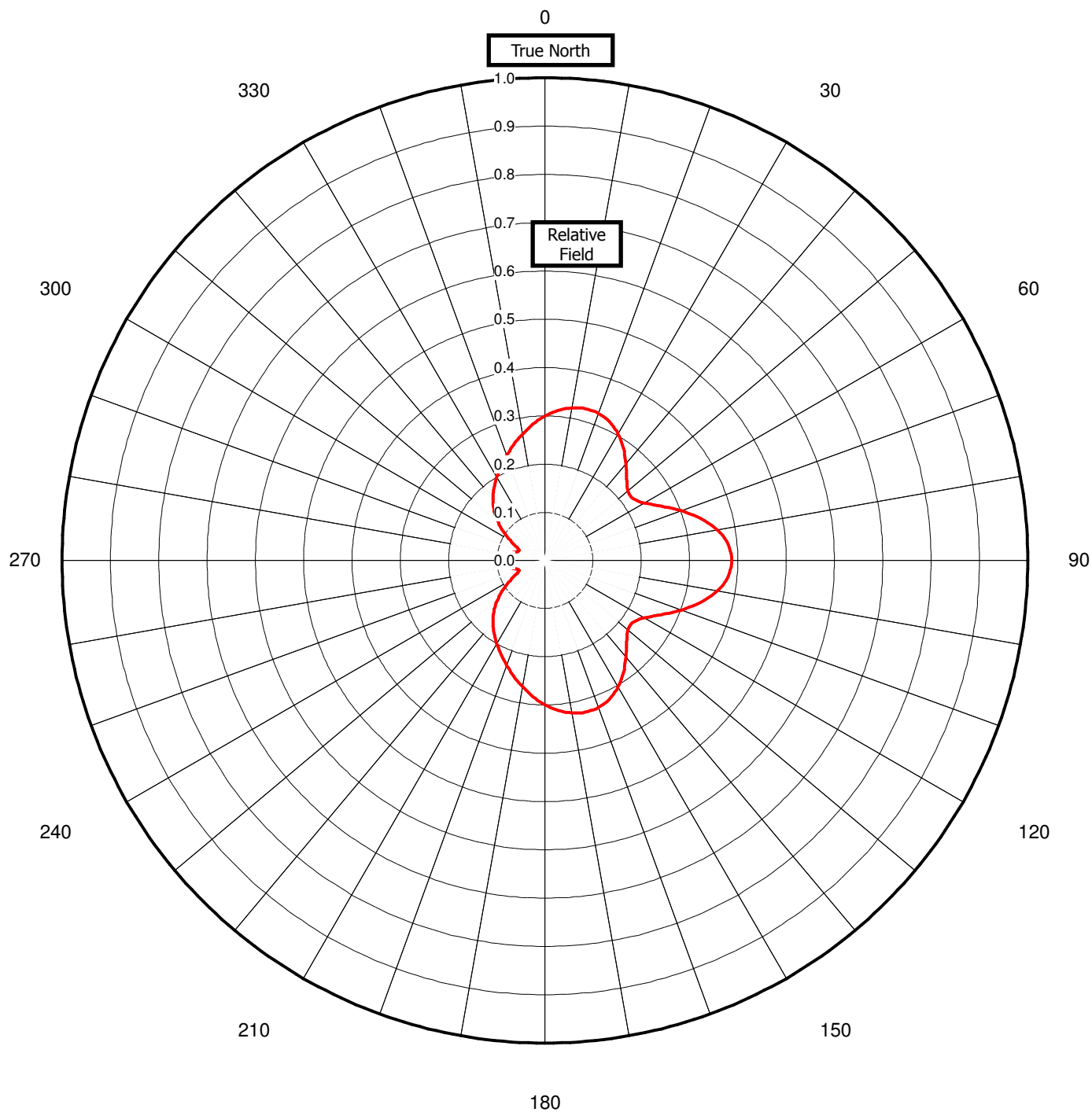
AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain **2.50**
Calculated / Measured

(3.98 dB)
Calculated

Frequency
Drawing #

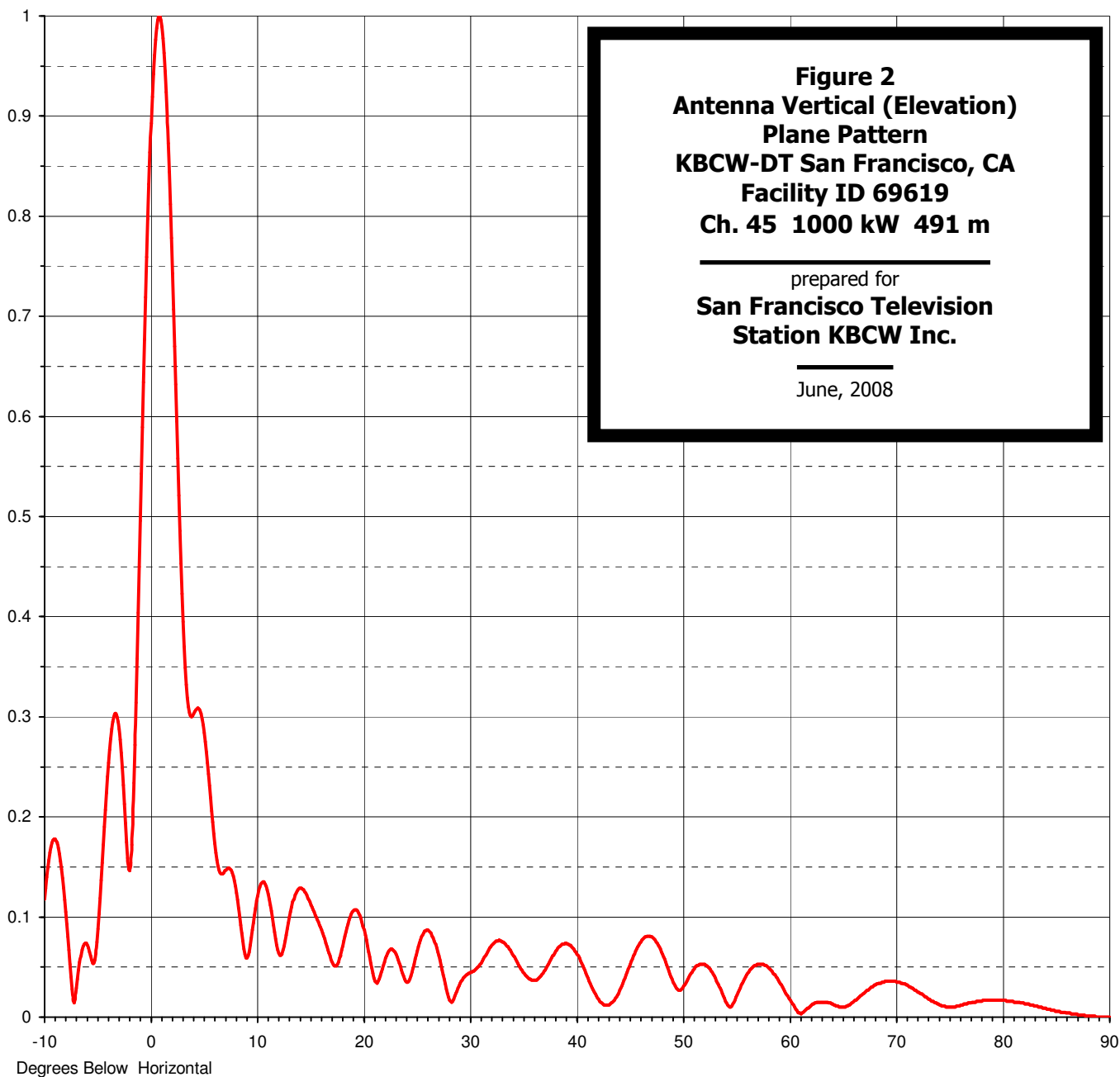
659.00 MHz
CT250-45-VP



ELEVATION PATTERN

RMS Gain at Main Lobe **18.00 (12.55 dB)**
 RMS Gain at Horizontal **14.40 (11.58 dB)**
 Calculated / Measured **Calculated**

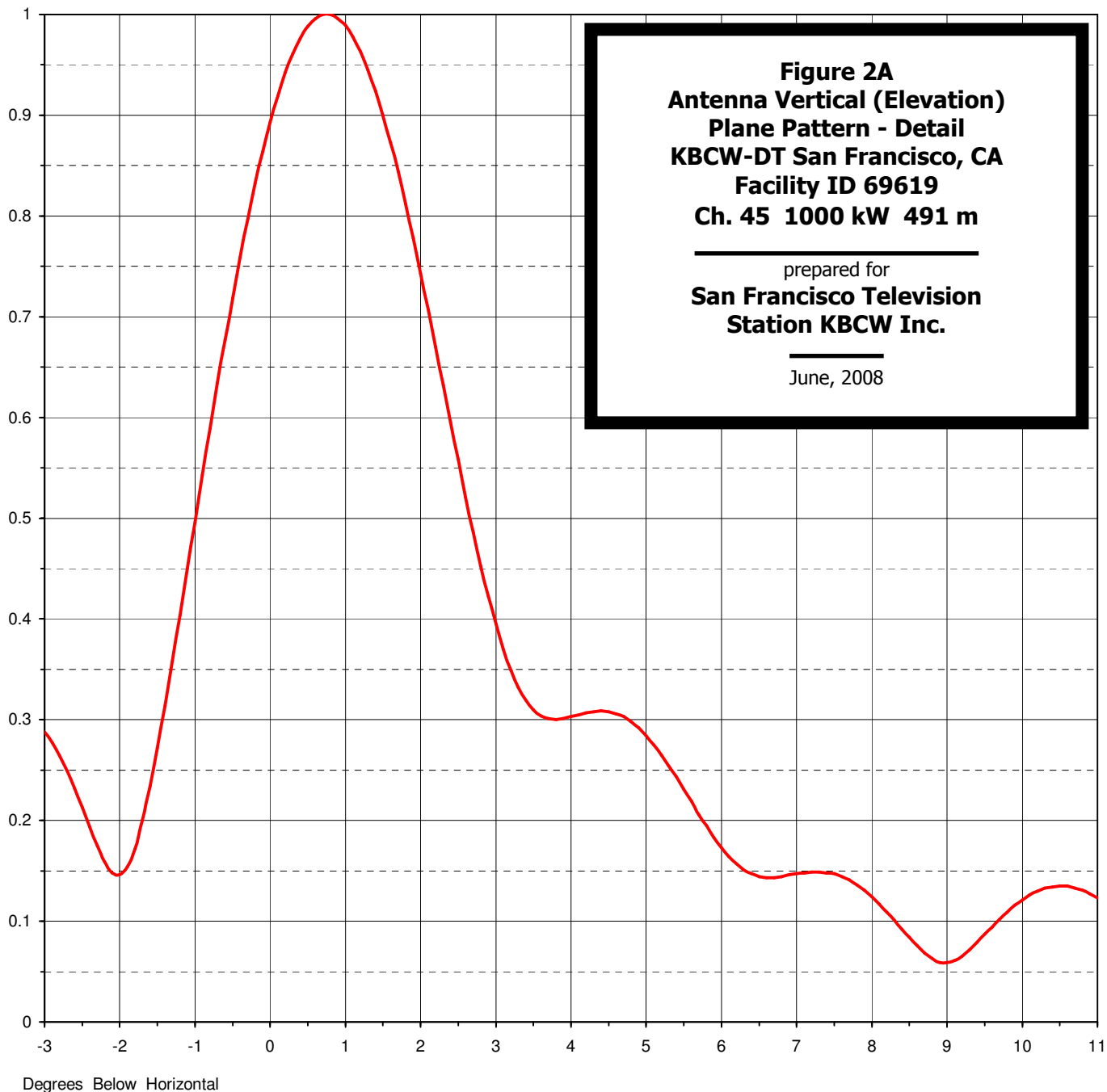
Beam Tilt **0.75 deg**
 Frequency **659.00 MHz**
 Drawing # **19JSC180075-90**



ELEVATION PATTERN

RMS Gain at Main Lobe	18.00 (12.55 dB)
RMS Gain at Horizontal	14.40 (11.58 dB)
Calculated / Measured	Calculated

Beam Tilt	0.75 deg
Frequency	659.00 MHz
Drawing #	19JSC180075



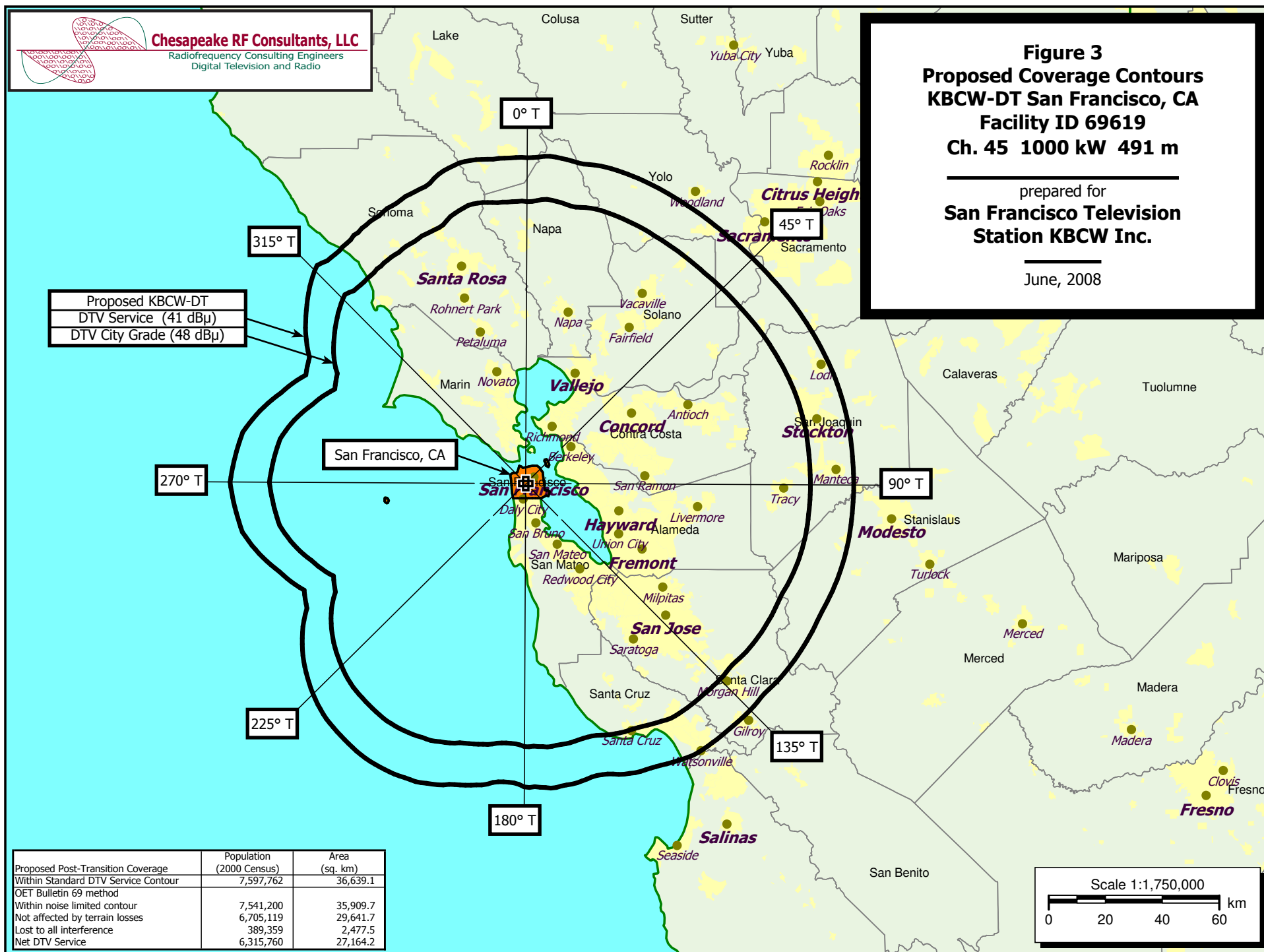


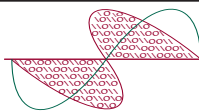
Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 3
Proposed Coverage Contours
KBCW-DT San Francisco, CA
Facility ID 69619
Ch. 45 1000 kW 491 m

prepared for
San Francisco Television
Station KBCW Inc.

June, 2008





Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 4
Coverage Contour Comparison
Largest Station In Market
KBCW-DT San Francisco, CA
Facility ID 69619
Ch. 45 1000 kW 491 m

prepared for
San Francisco Television
Station KBCW Inc.

June, 2008

Proposed KBCW-DT
41 dBu Contour
1000 kW 491 m
36,639 sq. km

KPIX-DT Digital Ch. 29
San Francisco, CA
Appendix B 41 dBu
1000 kW 506 m
41,278 sq. km

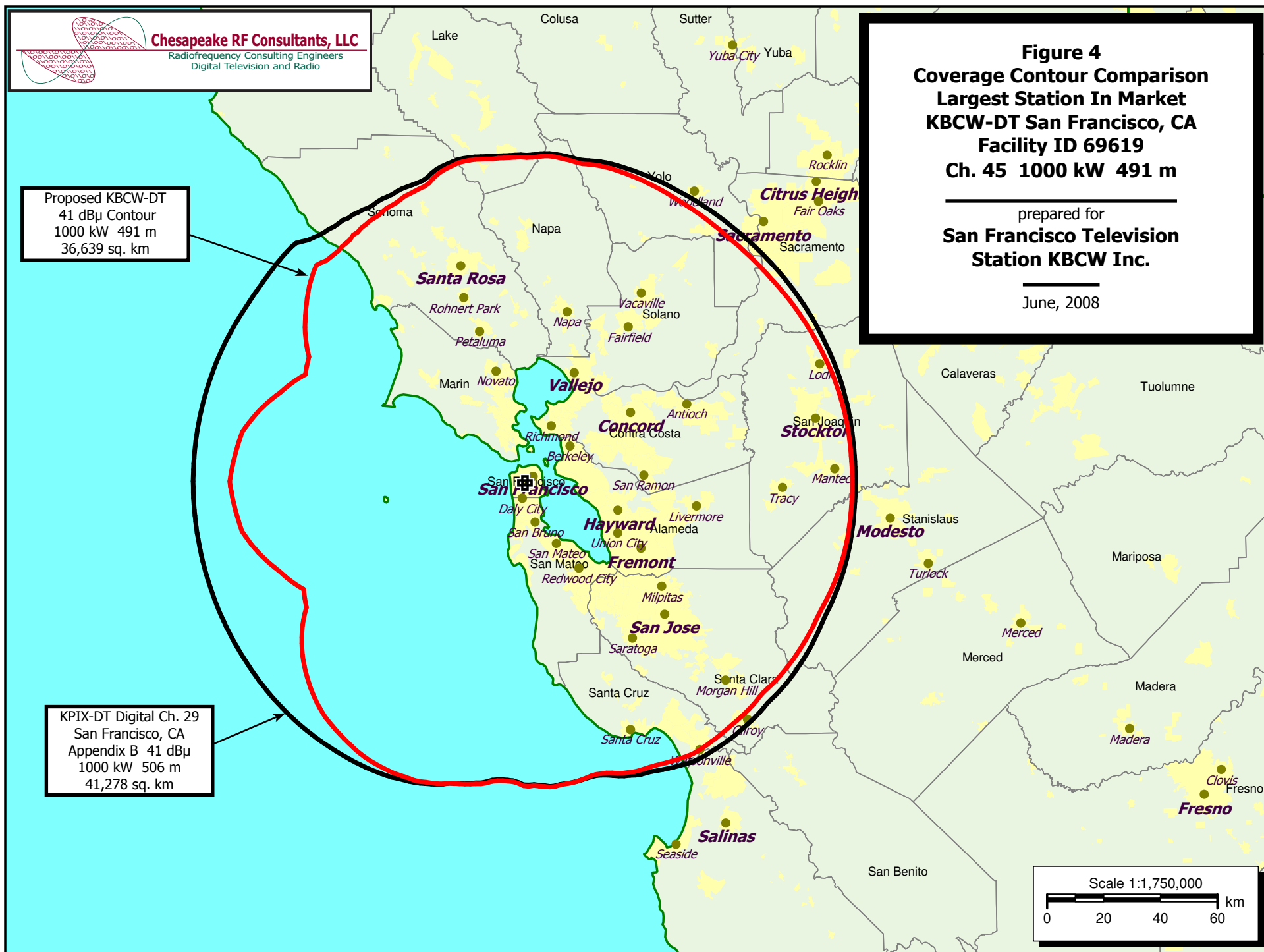


Table 1 KBCW-DT OET Bulletin 69 Interference Study
(page 1 of 5)

Cell Size = 1 km

Census data selected 2000
Post Transition Data Base Selected
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-01-2008 Time: 16:24:13

Record Selected for Analysis

KBCW-DT USERRECORD-01 SAN FRANCISCO CA US
Channel 45 ERP 1000. kW HAAT 495. m RCAMSL 00521 m
Latitude 037-45-19 Longitude 0122-27-06
Status APP Zone 2 Border
Dir Antenna Make usr Model DIE_CT150-SP45 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits
Channel 45 ERP = 1000.00 HAAT = 495.

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	998.001	495.6	114.2
45.0	749.090	506.0	112.2
90.0	994.009	509.9	115.1
135.0	749.090	502.7	111.9
180.0	998.001	403.8	106.5
225.0	332.929	512.5	105.0
270.0	285.156	515.0	103.8
315.0	332.929	514.6	105.2

Proposed facility OK to FCC Monitoring Stations
Proposed facility OK toward West Virginia quite zone
Proposed facility OK toward Table Mountain
Proposed facility is beyond the Canadian coordination distance
Proposed facility is beyond the Mexican coordination distance
Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
45	KBCW-DT	SAN FRANCISCO CA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
44	KTVU	OAKLAND CA	0.0	PLN	DTVPLN	-0171
44	KTVU-DT	OAKLAND CA	0.0	CP	BPCDT	-20080408AEQ
45	KUVI-TV	BAKERSFIELD CA	419.5	PLN	DTVPLN	-0129
45	KUVI-DT	BAKERSFIELD CA	419.5	CP	BPCDT	-20080328AIU
46	KQCA	STOCKTON CA	101.5	PLN	DTVPLN	-0224

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Table 1 KBCW-DT OET Bulletin 69 Interference Study
(page 2 of 5)

Cell Size = 1 km

Analysis of Interference to Affected Station 1

Analysis of current record	Channel	Call	City/State	Application	Ref. No.
	44	KTVU	OAKLAND CA	DTVPLN	-0171

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
43	KCSM-TV	SAN MATEO CA	0.0	PLN	DTVPLN	-0215
44	KRXI-TV	RENO NV	299.3	PLN	DTVPLN	-1118
45	KBCW	SAN FRANCISCO CA	0.0	PLN	DTVPLN	-0206
45	KBCW-DT	SAN FRANCISCO CA	0.0	APP	USERRECORD-01	

Total scenarios = 1

Result key: 1
Scenario 1 Affected station 1
Before Analysis

Results for: 44A CA OAKLAND	DTVPLN	0171	PLN
HAAT 433.0 m, ATV ERP 811.3 kW			
POPULATION	7020634	AREA (sq km)	28599.0
within Noise Limited Contour	6328763	23152.8	
not affected by terrain losses	0	0.0	
lost to NTSC IX	2962	9.9	
lost to additional IX by ATV	2962	9.9	
lost to ATV IX only	2962	9.9	
lost to all IX	2962	9.9	

Potential Interfering Stations Included in above Scenario 1

44A NV RENO	DTVPLN	1118	PLN
45A CA SAN FRANCISCO	DTVPLN	0206	PLN

After Analysis

Results for: 44A CA OAKLAND	DTVPLN	0171	PLN
HAAT 433.0 m, ATV ERP 811.3 kW			
POPULATION	7020634	AREA (sq km)	28599.0
within Noise Limited Contour	6328763	23152.8	
not affected by terrain losses	0	0.0	
lost to NTSC IX	24474	161.1	
lost to additional IX by ATV	24474	161.1	
lost to ATV IX only	24474	161.1	
lost to all IX	24474	161.1	

Potential Interfering Stations Included in above Scenario 1

44A NV RENO	DTVPLN	1118	PLN
45A CA SAN FRANCISCO	USERRECORD01		APP

Percent new IX = 0.3401%

Worst case new IX 0.3401% Scenario 1

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Table 1 KBCW-DT OET Bulletin 69 Interference Study
(page 3 of 5)

Cell Size = 1 km

Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
44	KTVU-DT	OAKLAND CA	BPCDT	-20080408AEQ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
43	KCSM-TV	SAN MATEO CA	0.0	PLN	DTVPLN	-0215
44	KRXI-TV	RENO NV	299.3	PLN	DTVPLN	-1118
45	KBCW	SAN FRANCISCO CA	0.0	PLN	DTVPLN	-0206
45	KBCW-DT	SAN FRANCISCO CA	0.0	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.
45	KUVI-TV	BAKERSFIELD CA	DTVPLN	-0129

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
44	KHIZ	BARSTOW CA	161.3	PLN	DTVPLN	-0130
45	KRCA	RIVERSIDE CA	149.6	PLN	DTVPLN	-0181
45	KBCW	SAN FRANCISCO CA	419.5	PLN	DTVPLN	-0206
45	KBCW-DT	SAN FRANCISCO CA	419.5	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.
45	KUVI-DT	BAKERSFIELD CA	BPCDT	-20080328AIU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
44	KHIZ	BARSTOW CA	161.3	PLN	DTVPLN	-0130
45	KRCA	RIVERSIDE CA	149.6	PLN	DTVPLN	-0181
45	KBCW	SAN FRANCISCO CA	419.5	PLN	DTVPLN	-0206
45	KBCW-DT	SAN FRANCISCO CA	419.5	APP	USERRECORD-01	

Proposal causes no interference

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
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Table 1 KBCW-DT OET Bulletin 69 Interference Study
(page 4 of 5)

Cell Size = 1 km

46	KQCA	STOCKTON CA	DTVPLN	-0224
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Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	KBCW	SAN FRANCISCO CA	101.5	PLN	DTVPLN	-0206
47	KTLN-TV	NOVATO CA	97.1	PLN	DTVPLN	-0170
45	KBCW-DT	SAN FRANCISCO CA	101.5	APP	USERRECORD-01	

Total scenarios = 1

Result key:

Scenario	1	Affected station	5
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Before Analysis

Results for: 46A CA STOCKTON	DTVPLN	0224	PLN
HAAT 580.0 m, ATV ERP 600.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	9023810	40415.5	
not affected by terrain losses	5324776	34346.9	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	579663	1293.3	
lost to ATV IX only	579663	1293.3	
lost to all IX	579663	1293.3	

Potential Interfering Stations Included in above Scenario 1

47A CA NOVATO	DTVPLN	0170	PLN
45A CA SAN FRANCISCO	DTVPLN	0206	PLN

After Analysis

Results for: 46A CA STOCKTON	DTVPLN	0224	PLN
HAAT 580.0 m, ATV ERP 600.0 kW			
	POPULATION	AREA (sq km)	
within Noise Limited Contour	9023810	40415.5	
not affected by terrain losses	5324776	34346.9	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	600299	1368.9	
lost to ATV IX only	600299	1368.9	
lost to all IX	600299	1368.9	

Potential Interfering Stations Included in above Scenario 1

47A CA NOVATO	DTVPLN	0170	PLN
45A CA SAN FRANCISCO	USERRECORD01		APP

Percent new IX = 0.4349%

Worst case new IX 0.4349% Scenario 1

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	KBCW-DT	SAN FRANCISCO CA	USERRECORD-01	

Table 1 KBCW-DT OET Bulletin 69 Interference Study
(page 5 of 5)

Cell Size = 1 km

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
44	KTVU	OAKLAND CA	0.0	PLN	DTVPLN -0171
44	KTVU-DT	OAKLAND CA	0.0	CP	BPCDT -20080408AEQ
45	KUVI-TV	BAKERSFIELD CA	419.5	PLN	DTVPLN -0129
45	KUVI-DT	BAKERSFIELD CA	419.5	CP	BPCDT -20080328AIU
46	KQCA	STOCKTON CA	101.5	PLN	DTVPLN -0224

Total scenarios = 1

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Result key:      3
Scenario        1 Affected station      6
Before Analysis
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Results for:	45A CA SAN FRANCISCO	USERRECORD01	APP
HAAT	495.0 m, ATV ERP 1000.0 kW		
	POPULATION	AREA (sq km)	
within Noise Limited Contour	7539107	35949.3	
not affected by terrain losses	6692240	29788.6	
lost to NTSC IX	0	0.0	
lost to additional IX by ATV	391504	2502.6	
lost to ATV IX only	391504	2502.6	
lost to all IX	391504	2502.6	

Potential Interfering Stations Included in above Scenario 1

46A CA STOCKTON	DTVPLN	0224	PLN
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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.	
<p>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.</p> <p>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.</p>	
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.	<input checked="" type="radio"/> Yes <input type="radio"/> 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.	<input type="radio"/> Yes <input type="radio"/> 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.	<input type="radio"/> Yes <input type="radio"/> 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").	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> 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 45 Analog TV, if any 44
2.	Zone: <input type="radio"/> I <input checked="" type="radio"/> II <input type="radio"/> III
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 37 Minutes 45 Seconds 19 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 122 Minutes 27 Seconds 06 <input checked="" type="radio"/> West <input type="radio"/> East
4.	Antenna Structure Registration Number: 1001289 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5.	Antenna Location Site Elevation Above Mean Sea Level: 254.2 meters
6.	Overall Tower Height Above Ground Level: 297.7 meters
7.	Height of Radiation Center Above Ground Level: 267.2 meters
8.	Height of Radiation Center Above Average Terrain : 490.5 meters
9.	Maximum Effective Radiated Power (average power): 1000 kW

10. Antenna Specifications:											
a. Manufacturer DIE Model TFU-19JSC/VP-R CT150 SP											
b. Electrical Beam Tilt: 0.75 degrees <input type="checkbox"/> Not Applicable											
c. Mechanical Beam Tilt: degrees toward azimuth degrees True <input checked="" type="checkbox"/> Not Applicable Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit 42]											
d. Polarization: <input type="radio"/> Horizontal <input type="radio"/> Circular <input checked="" type="radio"/> Elliptical											
e. Directional Antenna Relative Field Values: <input type="checkbox"/> 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): <input checked="" type="checkbox"/> No Rotation											
Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.999	10	0.98	20	0.94	30	0.894	40	0.863	50	0.868
60	0.904	70	0.95	80	0.985	90	0.997	100	0.985	110	0.95
120	0.904	130	0.868	140	0.863	150	0.894	160	0.94	170	0.98
180	0.999	190	0.994	200	0.955	210	0.863	220	0.696	230	0.458
240	0.216	250	0.268	260	0.457	270	0.534	280	0.457	290	0.268
300	0.216	310	0.458	320	0.696	330	0.863	340	0.955	350	0.994
Additional Azimuths		183	1	244	0.187	296	0.187	357	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? <input checked="" type="radio"/> Yes <input type="radio"/> 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 6/1/2008	
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.

