ENGINEERING EXHIBIT

"Maximization" Application to Modify Digital Television Station Construction Permit

prepared for

Young Broadcasting of San Francisco, Inc.
KRON-DT San Francisco, CA
Facility ID 65526
Ch. 38 1000 kW 512 m

Young Broadcasting of San Francisco, Inc. ("Young") is the licensee of television station KRON-TV, analog Channel 4 and digital Channel 57, San Francisco, CA. A Construction Permit ("CP", BPCDT-20080411AAP) authorizes construction of the KRON-DT facility with a side-mount antenna for the post-transition period on Channel 38, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. *Young* herein seeks to modify the CP to expand the KRON-DT post-transition Channel 38 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]

KRON-TV's analog and digital facilities are located at the shared Sutro Tower in San Francisco. The current CP for side-mount operation on Channel 38 specifies an effective radiated power ("ERP") of 890 kW at 446 meters antenna height above average terrain ("HAAT"), with a directional antenna. *Young's* plan for KRON-DT's final operation involves installation of a new top-mount antenna for digital Channel 38 in place of the current analog transmitting antennas atop the shared Sutro Tower.

The KRON-DT antenna will be shared with some of the eleven other television stations that operate from Sutro Tower. Installation of the various top-mounted digital transmitting antennas for

[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.

KRON-DT and the other stations cannot commence until after analog operations cease in February 2009. Beginning at the transition date and until the antenna reconfiguration is completed, KRON-DT will operate from the side-mount antenna as authorized in the current CP (890 kW / 446 meters, BPCDT-20080411AAP). As proposed herein, the final, top-mount KRON-DT facility will operate at 1000 kW and 512 meters antenna HAAT.

The proposed KRON-DT antenna system is a Dielectric model TUM-C5SP-14/60H-2-T-R. Elliptical polarization is proposed (20 percent vertical polarization). The maximum horizontally polarized ERP is 1000 kW, and the maximum vertically polarized ERP is 200 kW. The vertically polarized component will not exceed the horizontally polarized component at any azimuth. The directional antenna's azimuthal patterns are depicted in **Figures 1** and **1A** for horizontal and vertical polarization, respectively. **Figures 2** and **2A** provide the theoretical vertical plane (elevation) pattern[2].

The antenna will be top-mounted 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 location of San Francisco, KRON-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 KRON-DT facility's predicted service population provides a 102.6 percent match of the Appendix B facility, as detailed in the following table.

[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.

Post-Transition Population Summary

Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	7,115,864	7,639,396
Not affected by terrain losses	6,430,468	6,786,390
Lost to all interference	92,241	281,843
Net DTV Service	**6,338,227**	**6,504,547**
Match of Appendix B	---	**102.62%**

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 proposed 1000 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 512 meters currently permitted by §73.622(f)(6)(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 KRON-DT 41 dBμ contour is 36,030 square kilometers, which does not exceed the 41,536 square kilometers within the authorized post-transition contour area associated with station KGO-DT (BPCDT-20080606AAE, Ch. 7, San Francisco, CA). A coverage contour comparison map is provided as **Figure 4**. Thus, the ERP specified herein is in compliance with §73.622(f)(5) of the Commission's Rules.

Other Allocation Considerations

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 3.6 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

[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.

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 the antenna's relative field in downward elevations (**Figure 2**), the calculated power density attributable to the proposed KRON-DT facility at locations near the transmitter site at a height of two meters above ground level is depicted in the attached **Figure 5**.

Figure 5 indicates that the highest RF electromagnetic field level attributable to the proposed KRON-DT facility is 3.6 percent of the uncontrolled / general public maximum permissible exposure limit at any location two meters above ground level at the tower base, which occurs at a distance of 176 meters horizontally away from the base of the tower structure. 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. Actual ground elevations at this horizontal distance are lower than the tower base, resulting in lower calculated RF levels than that shown in **Figure 5**.

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 18, 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	Largest Station in Market
Figure 5	Calculated RF Electromagnetic Field
Table 1	OET Bulletin 69 Interference Study
Form 301	Saved Version of Engineering Sections from FCC Form at Time of Upload

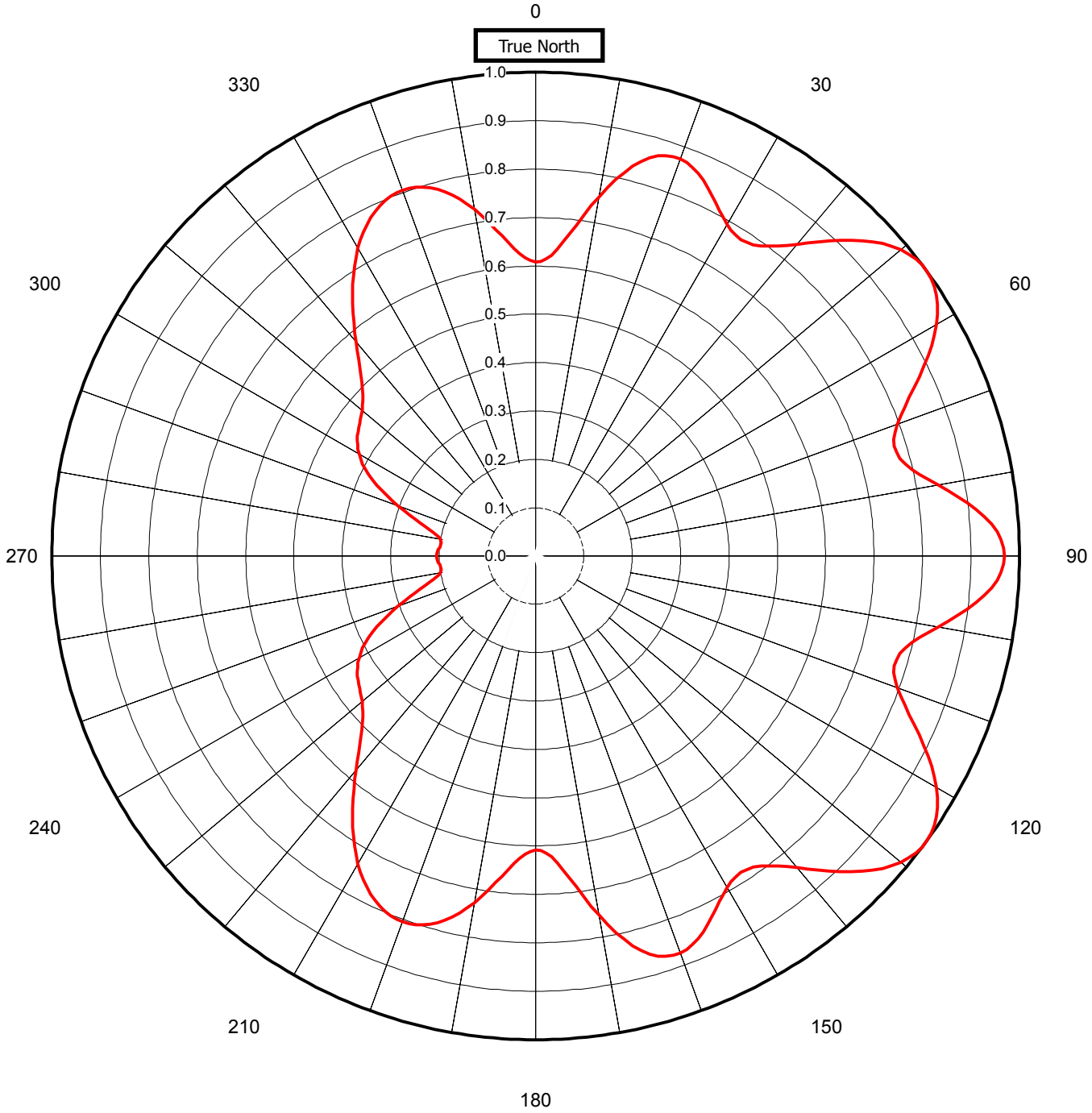
Dielectric

Figure 1
Antenna Horizontal Plane
Pattern - Horizontal Polarization

Proposal Number	**EM-070924-1**		
Date	**24-Sep-07**		
Call Letters	**KRON-DT**	Channel	**38**
Location	**San Francisco, CA**		
Customer			
Antenna Type	**TUM-C5SP-14/60H-2-T-R**		

AZIMUTH PATTERN

Gain	**1.90**	**(2.79 dB)**	Frequency	**617.00 MHz**
Calculated / Measured	**Calculated**		Drawing #	**TUM-C5SP-6170**



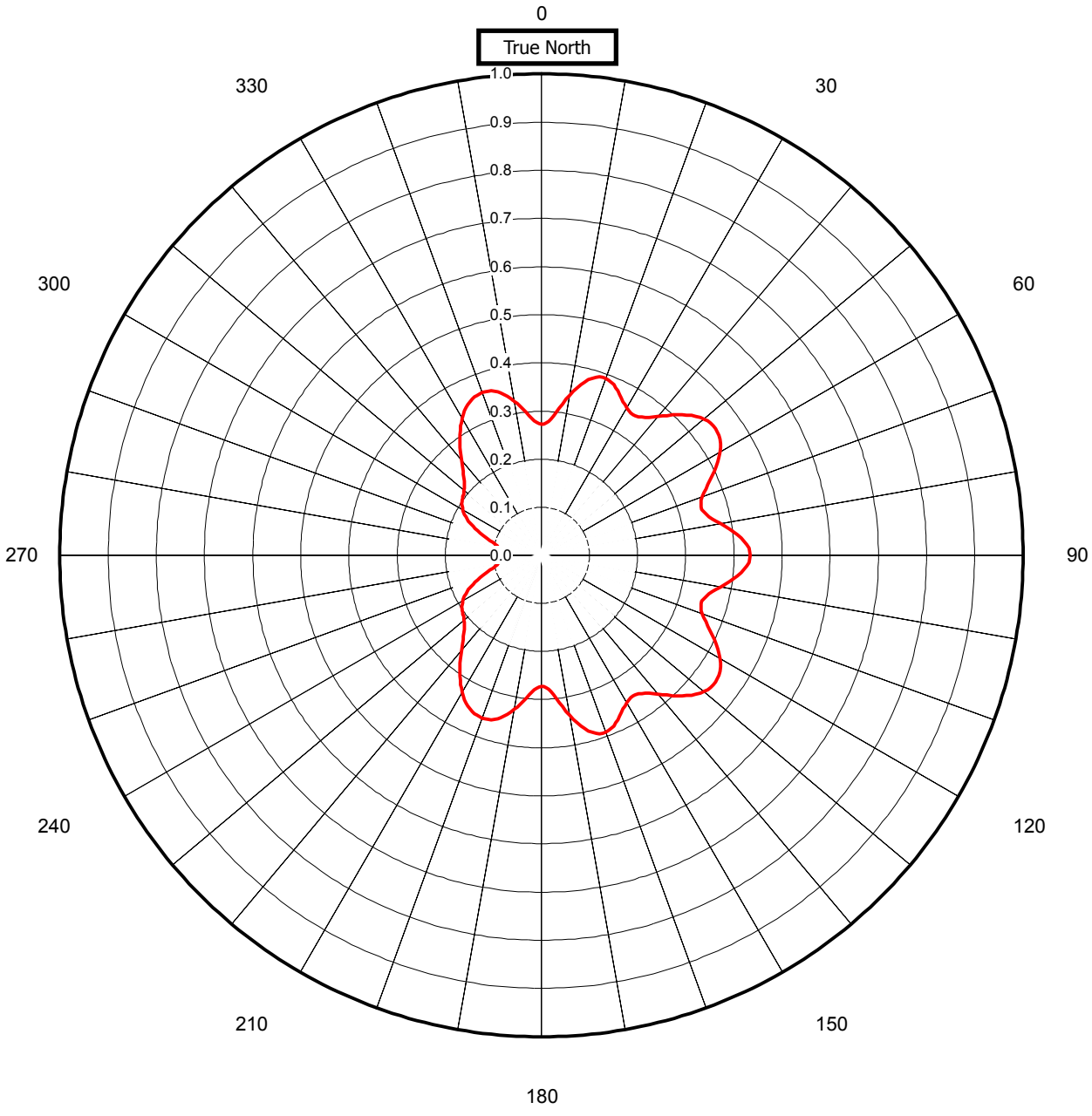
Dielectric

Figure 1A
Antenna Horizontal Plane
Pattern - Vertical Polarization

Proposal Number	**EM-070924-1**		
Date	**24-Sep-07**		
Call Letters	**KRON-DT**	Channel	**38**
Location	**San Francisco, CA**		
Customer			
Antenna Type	**TUM-C5SP-14/60H-2-T-R**		

AZIMUTH PATTERN/VERTICAL POLARIZATION

Gain	**1.90**	**(2.79 dB)**	
Calculated / Measured	**Calculated**		
Frequency	**617.00 MHz**		
Drawing #	**TUM-C5SP-6170**		

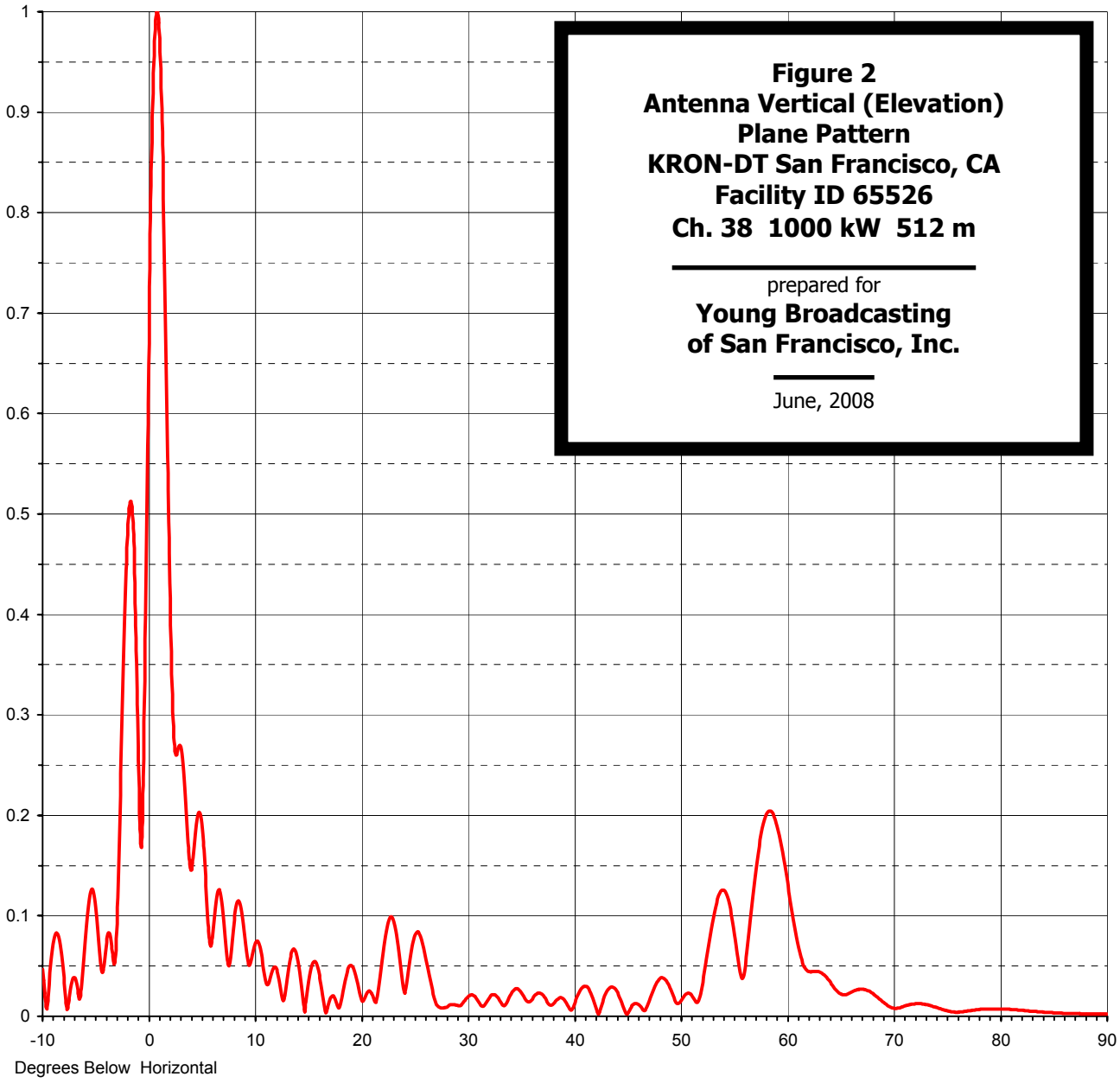


Dielectric

Proposal Number	**EM-070924-1**		
Date	**24-Sep-07**		
Call Letters	**KRON-DT**	Channel	**38**
Location	**San Francisco, CA**		
Customer			
Antenna Type	**TUM-C5SP-14/60H-2-T-R**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**25.90 (14.13 dB)**	Beam Tilt	**0.75 deg**
RMS Gain at Horizontal	**12.30 (10.90 dB)**	Frequency	**617.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**14U269075-90**



Dielectric

Proposal Number	**EM-070924-1**		
Date	**24-Sep-07**		
Call Letters	**KRON-DT**	Channel	**38**
Location	**San Francisco, CA**		
Customer			
Antenna Type	**TUM-C5SP-14/60H-2-T-R**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**25.90 (14.13 dB)**	Beam Tilt	**0.75 deg**
RMS Gain at Horizontal	**12.30 (10.90 dB)**	Frequency	**617.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**14U269075**

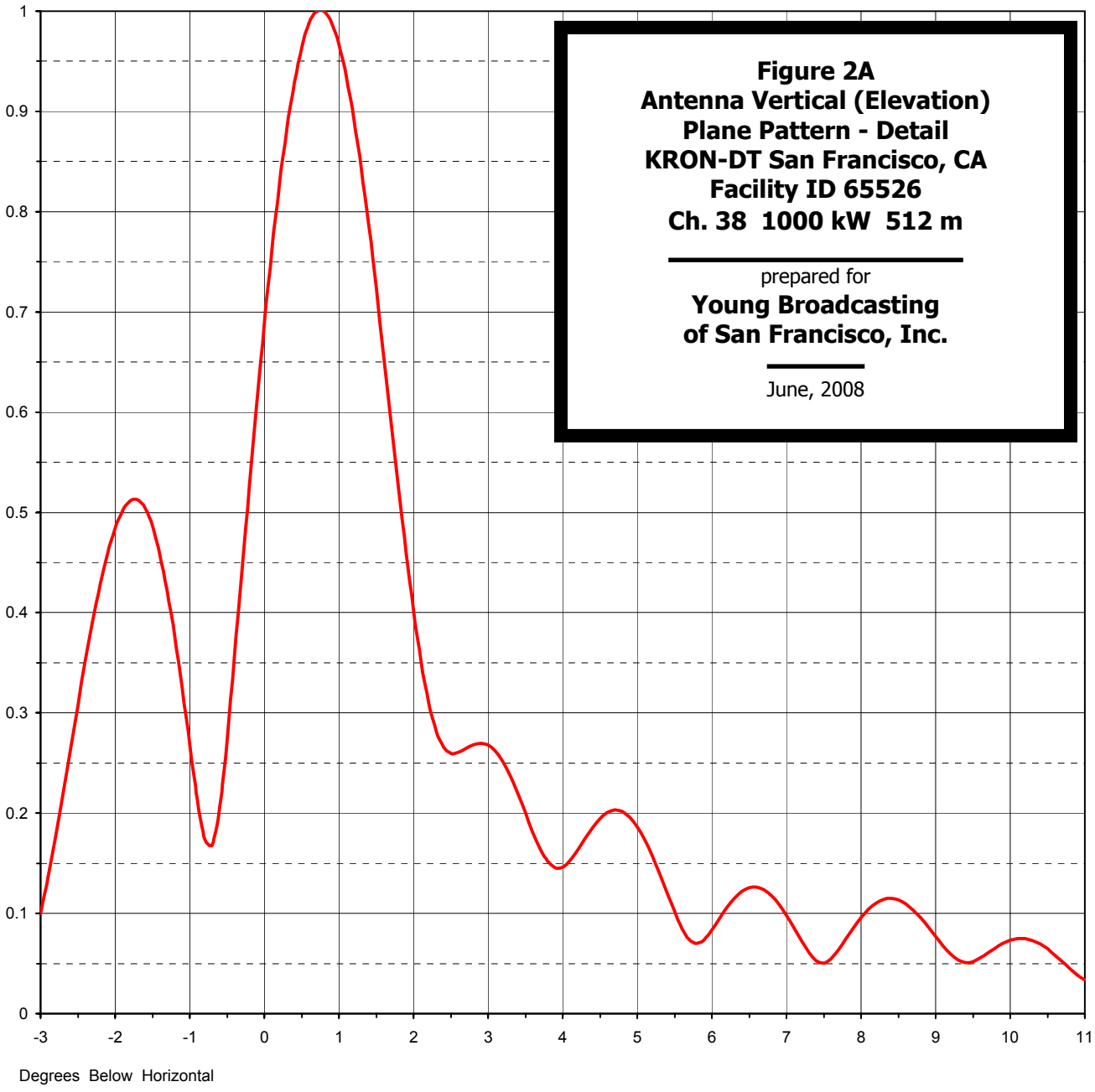
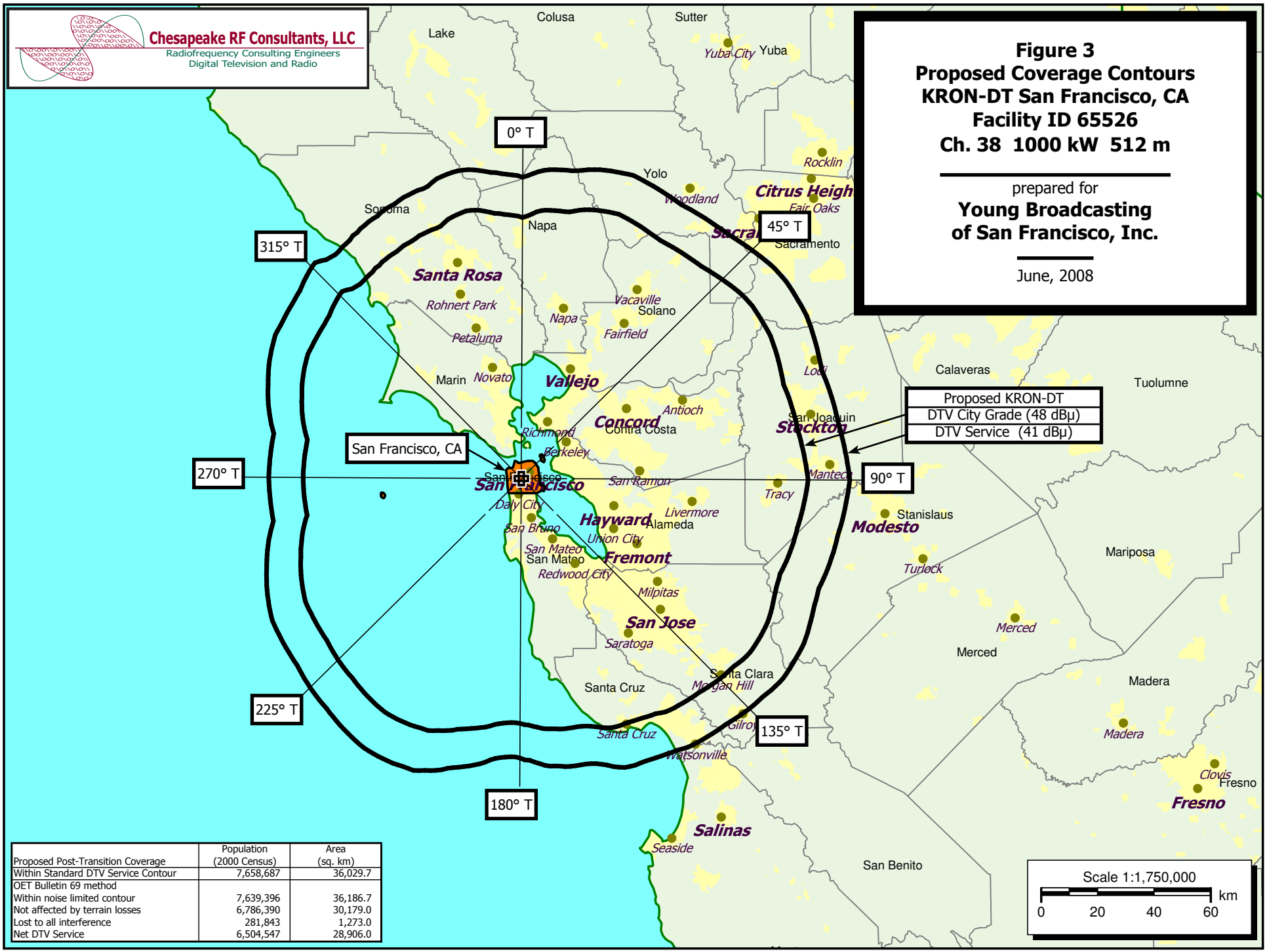


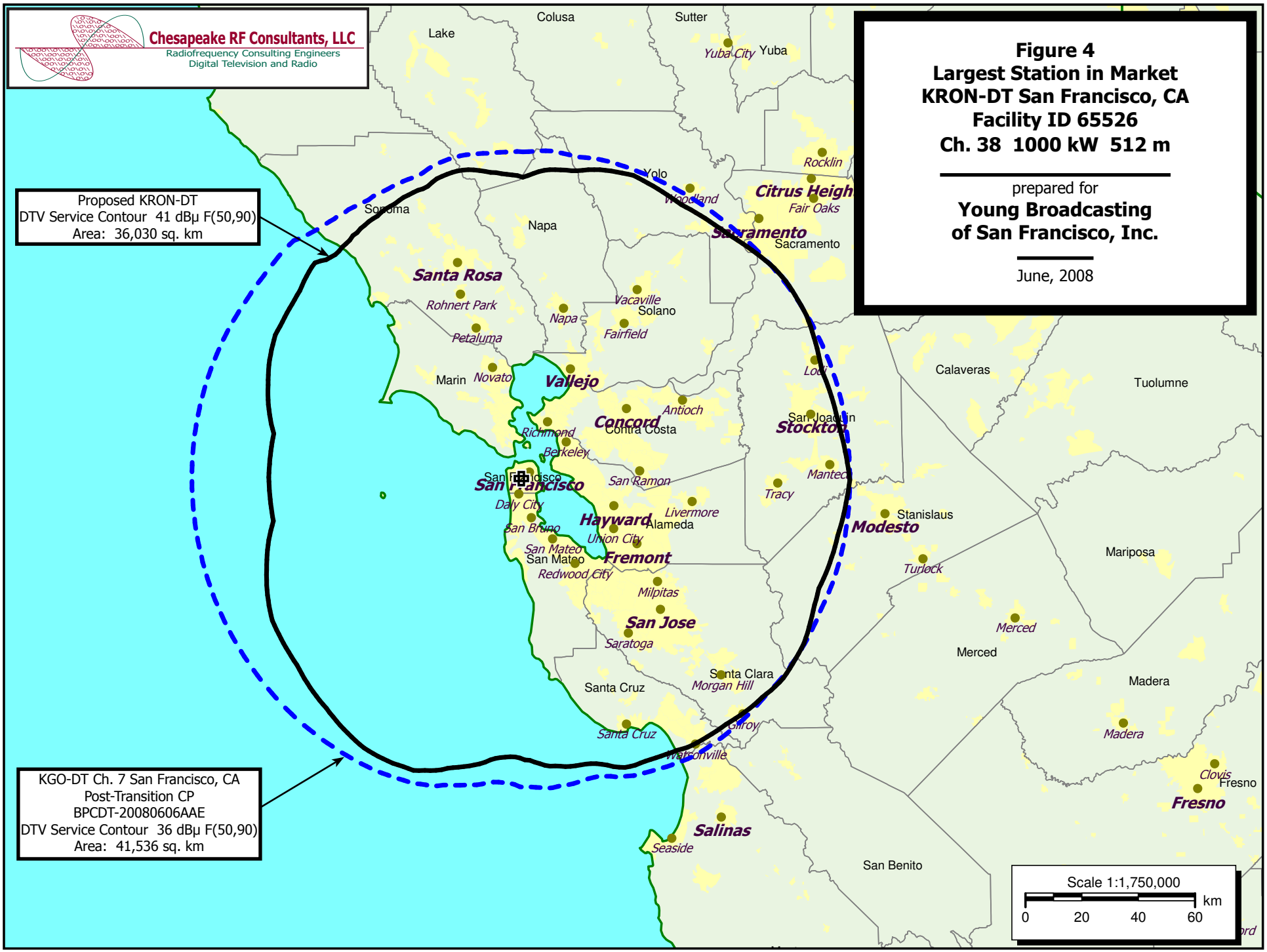
Figure 2A
Antenna Vertical (Elevation)
Plane Pattern - Detail
KRON-DT San Francisco, CA
Facility ID 65526
Ch. 38 1000 kW 512 m

prepared for
Young Broadcasting
of San Francisco, Inc.

June, 2008



Proposed Post-Transition Coverage	Population (2000 Census)	Area (sq. km)
Within Standard DTV Service Contour	7,658,687	36,029.7
OET Bulletin 69 method		
Within noise limited contour	7,639,396	36,186.7
Not affected by terrain losses	6,786,390	30,179.0
Lost to all interference	281,843	1,273.0
Net DTV Service	6,504,547	28,906.0


Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 4
Largest Station in Market
KRON-DT San Francisco, CA
Facility ID 65526
Ch. 38 1000 kW 512 m
prepared for
Young Broadcasting
of San Francisco, Inc.
June, 2008
Proposed KRON-DT
DTV Service Contour 41 dBµ F(50,90)
Area: 36,030 sq. km
KGO-DT Ch. 7 San Francisco, CA
Post-Transition CP
BPCDT-20080606AAE
DTV Service Contour 36 dBµ F(50,90)
Area: 41,536 sq. km
Colusa
Sutter
Lake
Yuba City
Yuba
Rocklin
Yolo
Woodland
Citrus Heigh
Fair Oaks
Sonoma
Napa
Sacramento
Sacramento
Santa Rosa
Rohnert Park
Vacaville
Solano
Napa
Petaluma
Fairfield
Marin
Novato
Vallejo
Lodi
Calaveras
Tuolumne
Antioch
Concord
Contra Costa
San Joaquin
Stockton
Richmond
Berkeley
San Francisco
San Ramon
Manteca
Tracy
Daly City
Livermore
Stanislaus
Hayward
Alameda
Modesto
San Bruno
Union City
San Mateo
Fremont
San Mateo
Redwood City
Turlock
Mariposa
Milpitas
San Jose
Merced
Saratoga
Merced
Santa Clara
Morgan Hill
Madera
Santa Cruz
Gilroy
Madera
Santa Cruz
Watsonville
Clovis
Fresno
Fresno
Salinas
Seaside
San Benito
Scale 1:1,750,000
km
0
20
40
60

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

Figure 5
Calculated RF Electromagnetic Field
KRON-DT San Francisco, CA
Facility ID 65526
Ch. 38 1000 kW 512 m

prepared for
Young Broadcasting
of San Francisco, Inc.

June, 2008

Graph depicts calculated percentage of General Population/Uncontrolled Maximum Exposure Limit for television Channel 38 attributable to KRON-DT for locations 2 meters above ground level. Calculations conducted pursuant to FCC OET Bulletin Number 65.

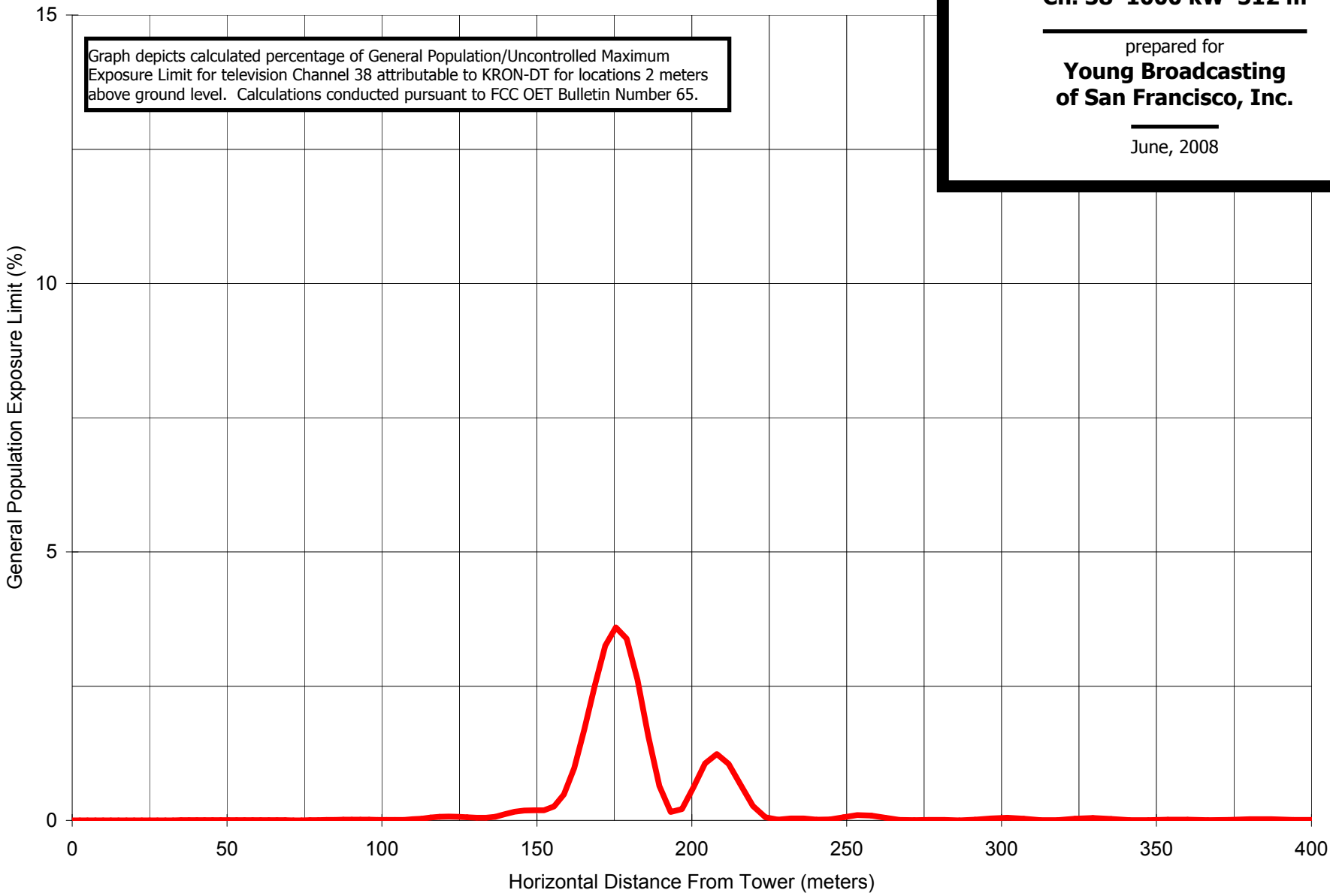


Table 1 KRON-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 1 of 8)

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

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-18-2008 Time: 19:26:15

Record Selected for Analysis

KRON-DT USERRECORD-01 SAN FRANCISCO CA US
Channel 38 ERP 1000. kW HAAT 517. m RCAMSL 00543 m
Latitude 037-45-19 Longitude 0122-27-06
Status APP Zone 2 Border
Dir Antenna Make usr Model KRON-D38-TOP 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 does not meet maximum height/power limits
Channel 38 ERP = 1000.00 HAAT = 517.

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	369.664	517.6	106.4
45.0	833.569	528.0	114.7
90.0	938.961	531.9	116.0
135.0	833.569	524.7	114.5
180.0	369.664	425.8	98.9
225.0	273.006	534.5	104.9
270.0	42.025	537.0	89.1
315.0	273.006	536.6	105.0

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 beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Table 1 KRON-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 2 of 8)

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Proposed Station

Channel	Call	City/State	ARN
38	KRON-DT	SAN FRANCISCO CA	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
23	KEZT-CA	SACRAMENTO CA	123.9	LIC	BLTTL -19970918JA
38	KSEE	FRESNO CA	277.3	LIC	BLCDT -20050914AAZ
38	KSEE	FRESNO CA	277.3	PLN	DTVPLN -DTVP1356
39	KCNS	SAN FRANCISCO CA	0.0	LIC	BLCDT -20060221AES
39	KCNS	SAN FRANCISCO CA	0.0	PLN	DTVPLN -DTVP1395
46	K46DR	LAKEPORT CA	102.6	APP	BSTA -20061016ADK
46	K46DR	LAKEPORT CA	139.9	LIC	BLTT -19941103IB

%%%%%%%%%%

Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
23	KEZT-CA	SACRAMENTO CA	BLTTL -19970918JA

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	KBSV	CERES CA	121.5	CP MOD	BMPEDT -20060622ABE
15	KBSV	CERES CA	121.4	PLN	DTVPLN -DTVP0520
19	KBWB	SAN FRANCISCO CA	123.9	LIC	BLCDT -20000421ABF
19	KBWB	SAN FRANCISCO CA	123.9	PLN	DTVPLN -DTVP0668
21	KMAX-TV	SACRAMENTO CA	33.5	LIC	BLCDT -20041018ABT
21	KMAX-TV	SACRAMENTO CA	33.5	PLN	DTVPLN -DTVP0752
22	KRCB	COTATI CA	98.6	LIC	BLET -20070905AAG
22	K22FR	SACRAMENTO CA	17.4	LIC	BLTT -20061204ADU
23	KAEF	ARCATA CA	321.1	LIC	BLCT -19870811KH
23	KBSV	CERES CA	117.9	LIC	BLET -19960319KE
23	KRCB	COTATI CA	98.6	CP MOD	BMPEDT -20060804AFZ
23	KRCB	COTATI CA	98.6	PLN	DTVPLN -DTVP0833
23	KMUV-LP	MONTEREY CA	201.2	LIC	BLTTL -20070402KPQ
23	K23DT	TAHOE CITY CA	160.9	LIC	BLTT -19930927IB
25	KOVR	STOCKTON CA	36.3	LIC	BLCDT -20050516ANE
25	KOVR	STOCKTON CA	36.3	PLN	DTVPLN -DTVP0916
26	KTFK-TV	STOCKTON CA	36.3	CP	BPCDT -20080317AGF
26	KTFK-TV	STOCKTON CA	36.3	PLN	DTVPLN -DTVP0949
27	KTSF	SAN FRANCISCO CA	128.6	LIC	BLCDT -20050131AOD
27	KTSF	SAN FRANCISCO CA	128.6	PLN	DTVPLN -DTVP0989
30	KQED	SAN FRANCISCO CA	123.9	LIC	BLEDT -20000601ADY
30	KQED	SAN FRANCISCO CA	123.9	PLN	DTVPLN -DTVP1103
30	KQED	SAN FRANCISCO CA	123.9	CP	BPEDT -20080314ACI
38	KCNS	SAN FRANCISCO CA	123.8	LIC	BMLCT -19980916KE
38	KRON-TV	SAN FRANCISCO CA	123.9	PLN	DTVPLN -DTVP1358
38	KRON-DT	SAN FRANCISCO CA	123.9	APP	USERRECORD-01

Proposed station is beyond the site to

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 nearest cell evaluation distance

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     Analysis of Interference to Affected Station   2


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   38      KSEE       FRESNO CA                BLCDT     -20050914AAZ

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 38   KPXN     SAN BERNARDINO CA         341.0  LIC    BLCDT     -20050623AAG
 38   KPXN     SAN BERNARDINO CA         341.0  PLN    DTVPLN    -DTVP1357
 38   KRON-TV  SAN FRANCISCO CA          277.3  PLN    DTVPLN    -DTVP1358
 38   KRON-DT  SAN FRANCISCO CA          277.3  APP    USERRECORD-01

 Total scenarios =   1


Result key:        1
Scenario        1  Affected station        2
Before Analysis

Results for: 38A CA FRESNO              BLCDT     20050914AAZ  LIC
   HAAT  601.0 m, ATV ERP  326.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     1481198      32468.6
   not affected by terrain losses   1467516      28567.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV        1291        429.0
   lost to ATV IX only                 1291        429.0
   lost to all IX                      1291        429.0

 Potential Interfering Stations Included in above Scenario     1

38A CA SAN FRANCISCO        DTVPLN    DTVP1358     PLN

After Analysis

Results for: 38A CA FRESNO              BLCDT     20050914AAZ  LIC
   HAAT  601.0 m, ATV ERP  326.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     1481198      32468.6
   not affected by terrain losses   1467516      28567.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV        1295        449.0
   lost to ATV IX only                 1295        449.0
   lost to all IX                      1295        449.0

 Potential Interfering Stations Included in above Scenario     1

38A CA SAN FRANCISCO        USERRECORD01           APP

Percent new IX =    0.0003%

Worst case new IX    0.0003% Scenario      1

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     Analysis of Interference to Affected Station   3


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   38      KSEE       FRESNO CA                DTVPLN    -DTVP1356

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 38   KPXN     SAN BERNARDINO CA         341.0  LIC    BLCDT     -20050623AAG
 38   KPXN     SAN BERNARDINO CA         341.0  PLN    DTVPLN    -DTVP1357
 38   KRON-TV  SAN FRANCISCO CA          277.3  PLN    DTVPLN    -DTVP1358
 38   KRON-DT  SAN FRANCISCO CA          277.3  APP    USERRECORD-01

 Total scenarios =   1


Result key:        2
Scenario        1  Affected station        3
Before Analysis

Results for: 38A CA FRESNO              DTVPLN    DTVP1356     PLN
   HAAT  601.0 m, ATV ERP  326.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     1481198      32468.6
   not affected by terrain losses   1467516      28567.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV        1291        429.0
   lost to ATV IX only                 1291        429.0
   lost to all IX                      1291        429.0

 Potential Interfering Stations Included in above Scenario     1

38A CA SAN FRANCISCO        DTVPLN    DTVP1358     PLN

After Analysis

Results for: 38A CA FRESNO              DTVPLN    DTVP1356     PLN
   HAAT  601.0 m, ATV ERP  326.0 kW
                                  POPULATION   AREA (sq km)
   within Noise Limited Contour     1481198      32468.6
   not affected by terrain losses   1467516      28567.9
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV        1295        449.0
   lost to ATV IX only                 1295        449.0
   lost to all IX                      1295        449.0

 Potential Interfering Stations Included in above Scenario     1

38A CA SAN FRANCISCO        USERRECORD01           APP

Percent new IX =    0.0003%

Worst case new IX    0.0003% Scenario      1

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     Analysis of Interference to Affected Station   4
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Table 1 KRON-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 5 of 8)

```
Analysis of current record
Channel     Call           City/State        Application Ref. No.
   39      KCNS       SAN FRANCISCO CA          BLCDT     -20060221AES

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 38   KRON-TV  SAN FRANCISCO CA           0.0  PLN    DTVPLN    -DTVP1358
 40   KTXL     SACRAMENTO CA           100.8  CP     BPCDT     -20080320ABI
 40   KTXL     SACRAMENTO CA           100.8  PLN    DTVPLN    -DTVP1427
 38   KRON-DT  SAN FRANCISCO CA          0.0  APP    USERRECORD-01

 Total scenarios =   2

Result key:        4
Scenario        2  Affected station        4
Before Analysis

Results for: 39A CA SAN FRANCISCO        BLCDT     20060221AES  LIC
   HAAT  428.0 m, ATV ERP 1000.0 kW
                                POPULATION   AREA (sq km)
   within Noise Limited Contour     7305435      31337.1
   not affected by terrain losses   6527318      25936.2
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV      260654       1642.3
   lost to ATV IX only               260654       1642.3
   lost to all IX                    260654       1642.3

 Potential Interfering Stations Included in above Scenario     2

40A CA SACRAMENTO           DTVPLN    DTVP1427     PLN

After Analysis

Results for: 39A CA SAN FRANCISCO        BLCDT     20060221AES  LIC
   HAAT  428.0 m, ATV ERP 1000.0 kW
                                POPULATION   AREA (sq km)
   within Noise Limited Contour     7305435      31337.1
   not affected by terrain losses   6527318      25936.2
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV      266116       1698.6
   lost to ATV IX only               266116       1698.6
   lost to all IX                    266116       1698.6

 Potential Interfering Stations Included in above Scenario     2

40A CA SACRAMENTO           DTVPLN    DTVP1427     PLN
38A CA SAN FRANCISCO        USERRECORD01           APP

Percent new IX =    0.0872%

Worst case new IX    0.0872% Scenario      2

########################################################################


     Analysis of Interference to Affected Station   5


Analysis of current record
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Table 1 KRON-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 6 of 8)

```
Channel     Call           City/State        Application Ref. No.
   39      KCNS       SAN FRANCISCO CA          DTVPLN    -DTVP1395

     Stations Potentially Affecting This Station

Chan   Call      City/State           Dist(km) Status  Application Ref. No.
 38   KRON-TV  SAN FRANCISCO CA           0.0  PLN    DTVPLN    -DTVP1358
 40   KTXL     SACRAMENTO CA           100.8  CP     BPCDT     -20080320ABI
 40   KTXL     SACRAMENTO CA           100.8  PLN    DTVPLN    -DTVP1427
 38   KRON-DT  SAN FRANCISCO CA          0.0  APP    USERRECORD-01

 Total scenarios =   2

Result key:        6
Scenario        2  Affected station        5
Before Analysis

Results for: 39A CA SAN FRANCISCO        DTVPLN    DTVP1395     PLN
   HAAT  428.0 m, ATV ERP 1000.0 kW
                                POPULATION   AREA (sq km)
   within Noise Limited Contour     7305435      31337.1
   not affected by terrain losses   6527318      25936.2
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV      260654       1642.3
   lost to ATV IX only               260654       1642.3
   lost to all IX                    260654       1642.3

 Potential Interfering Stations Included in above Scenario     2

40A CA SACRAMENTO           DTVPLN    DTVP1427     PLN

After Analysis

Results for: 39A CA SAN FRANCISCO        DTVPLN    DTVP1395     PLN
   HAAT  428.0 m, ATV ERP 1000.0 kW
                                POPULATION   AREA (sq km)
   within Noise Limited Contour     7305435      31337.1
   not affected by terrain losses   6527318      25936.2
   lost to NTSC IX                        0          0.0
   lost to additional IX by ATV      266116       1698.6
   lost to ATV IX only               266116       1698.6
   lost to all IX                    266116       1698.6

 Potential Interfering Stations Included in above Scenario     2

40A CA SACRAMENTO           DTVPLN    DTVP1427     PLN
38A CA SAN FRANCISCO        USERRECORD01           APP

Percent new IX =    0.0872%

Worst case new IX    0.0872% Scenario      2

########################################################################


     Analysis of Interference to Affected Station   6


Analysis of current record
Channel     Call           City/State        Application Ref. No.
   46      K46DR      LAKEPORT CA              BSTA      -20061016ADK
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Table 1 KRON-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 7 of 8)

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
38	KRON-TV	SAN FRANCISCO CA	102.6	PLN	DTVPLN	-DTVP1358
39	KCNS	SAN FRANCISCO CA	102.6	LIC	BLCDT	-20060221AES
39	KCNS	SAN FRANCISCO CA	102.6	PLN	DTVPLN	-DTVP1395
43	KCSM-TV	SAN MATEO CA	102.6	LIC	BLEDT	-20030822AFZ
43	KCSM-TV	SAN MATEO CA	102.6	PLN	DTVPLN	-DTVP1529
44	KTVU	OAKLAND CA	102.6	CP	BPCDT	-20080408AEQ
44	KTVU	OAKLAND CA	102.6	PLN	DTVPLN	-DTVP1566
45	KBCW	SAN FRANCISCO CA	102.6	LIC	BLCDT	-20020709AAQ
45	KBCW	SAN FRANCISCO CA	102.6	PLN	DTVPLN	-DTVP1605
46	KION-TV	MONTEREY CA	253.1	LIC	BMLCT	-19820622KG
46	KQCA	STOCKTON CA	108.6	LIC	BLCDT	-20060623AAM
46	KQCA	STOCKTON CA	108.6	PLN	DTVPLN	-DTVP1638
46	KAZR-CA	RENO, ETC NV	247.6	LIC	BLTTA	-20051114AFU
47	KTLN-TV	NOVATO CA	57.7	CP	BPCDT	-19991026ABE
47	KTLN-TV	NOVATO CA	57.7	PLN	DTVPLN	-DTVP1668
48	KSPX	SACRAMENTO CA	108.6	LIC	BLCDT	-20050110ABB
48	KSPX	SACRAMENTO CA	108.6	PLN	DTVPLN	-DTVP1699
49	KSTS	SAN JOSE CA	145.8	LIC	BLCDT	-20030507AAT
49	KSTS	SAN JOSE CA	145.8	PLN	DTVPLN	-DTVP1730
60	KCSM-TV	SAN MATEO CA	110.5	LIC	BLET	-19980730KF
38	KRON-DT	SAN FRANCISCO CA	102.6	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

##

Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
46	K46DR	LAKEPORT CA	BLTT	-19941103IB

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
38	KRON-TV	SAN FRANCISCO CA	139.9	PLN	DTVPLN	-DTVP1358
39	KCNS	SAN FRANCISCO CA	139.9	LIC	BLCDT	-20060221AES
39	KCNS	SAN FRANCISCO CA	139.9	PLN	DTVPLN	-DTVP1395
43	KHSL-TV	CHICO CA	140.6	CP	BPCDT	-20070124AKD
43	KHSL-TV	CHICO CA	140.6	PLN	DTVPLN	-DTVP1526
43	KHSL-TV	CHICO CA	140.6	LIC	BLCDT	-20060315AEZ
43	KCSM-TV	SAN MATEO CA	139.9	LIC	BLEDT	-20030822AFZ
43	KCSM-TV	SAN MATEO CA	139.9	PLN	DTVPLN	-DTVP1529
44	KTVU	OAKLAND CA	139.9	CP	BPCDT	-20080408AEQ
44	KTVU	OAKLAND CA	139.9	PLN	DTVPLN	-DTVP1566
45	K45AH	UKIAH CA	31.5	LIC	BLTT	-19830125IK
46	KION-TV	MONTEREY CA	290.9	LIC	BMLCT	-19820622KG
46	K46HI	REDDING CA	186.3	LIC	BLTTL	-20040329ABN
46	KQCA	STOCKTON CA	137.1	LIC	BLCDT	-20060623AAM
46	KQCA	STOCKTON CA	137.1	PLN	DTVPLN	-DTVP1638
46	KAZR-CA	RENO, ETC NV	251.2	LIC	BLTTA	-20051114AFU
47	KTLN-TV	NOVATO CA	94.5	CP	BPCDT	-19991026ABE
47	KTLN-TV	NOVATO CA	94.5	PLN	DTVPLN	-DTVP1668
47	K47AL	UKIAH CA	31.5	LIC	BLTTL	-19830223IB
48	KSPX	SACRAMENTO CA	137.1	LIC	BLCDT	-20050110ABB
48	KSPX	SACRAMENTO CA	137.1	PLN	DTVPLN	-DTVP1699

Table 1 KRON-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 8 of 8)

38	KRON-DT	SAN FRANCISCO CA	139.9	APP	USERRECORD-01	

Proposed station is beyond the site to
nearest cell evaluation distance

##

Analysis of Interference to Affected Station 8

Analysis of current record

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

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
38	KSEE	FRESNO CA	277.3	LIC	BLCDT	-20050914AAZ
38	KSEE	FRESNO CA	277.3	PLN	DTVPLN	-DTVP1356
39	KCNS	SAN FRANCISCO CA	0.0	LIC	BLCDT	-20060221AES
39	KCNS	SAN FRANCISCO CA	0.0	PLN	DTVPLN	-DTVP1395

Total scenarios = 2

Result key: 8
Scenario 2 Affected station 8
Before Analysis

Results for: 38A CA SAN FRANCISCO USERRECORD01 APP
HAAT 517.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	7639396	36186.7
not affected by terrain losses	6786390	30179.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	281843	1273.0
lost to ATV IX only	281843	1273.0
lost to all IX	281843	1273.0

Potential Interfering Stations Included in above Scenario 2

38A CA FRESNO DTVPLN DTVP1356 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.

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 38 Analog TV, if any 4	
2.	Zone: ( ) I (•) II ( ) III	
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 37 Minutes 45 Seconds 19 (•) North ( ) South Longitude: Degrees 122 Minutes 27 Seconds 6 (•) West ( ) East	
4.	Antenna Structure Registration Number: 1001289 ☐ Not Applicable ☐ 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:	288.4 meters
8.	Height of Radiation Center Above Average Terrain :	511.7 meters

9. Maximum Effective Radiated Power (average power): 1000 kW

10. Antenna Specifications:

a. Manufacturer DIE Model TUM-C5SP-14/60H-2-T-R

b. Electrical Beam Tilt:
0.75 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): ☑ No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.608	10	0.754	20	0.873	30	0.791	40	0.841	50	0.985
60	0.957	70	0.795	80	0.845	90	0.969	100	0.845	110	0.795
120	0.957	130	0.985	140	0.841	150	0.791	160	0.873	170	0.754
180	0.608	190	0.727	200	0.805	210	0.735	220	0.577	230	0.468
240	0.422	250	0.303	260	0.201	270	0.205	280	0.201	290	0.303
300	0.422	310	0.468	320	0.577	330	0.735	340	0.805	350	0.727
Additional Azimuths		53	1	127	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 6/18/2008	
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.