

## **ENGINEERING EXHIBIT**

**ABC HOLDING COMPANY, INC.  
TELEVISION STATION KABC-TV, FACILITY ID 282  
APPLICATION FOR POST-TRANSITION DTV CONSTRUCTION PERMIT  
CHANNEL 7 – 13.2 KW DA MAX(DTV AVERAGE) – 978 METERS HAAT**

**LOS ANGELES, CALIFORNIA**

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## **ENGINEERING EXHIBIT**

### **ABC HOLDING COMPANY, INC., TELEVISION STATION KABC-TV, FACILITY ID 282 APPLICATION FOR DTV POST-TRANSITION CONSTRUCTION PERMIT CHANNEL 7 – 13.2 KW (DTV AVERAGE) – 978 METERS HAAT**

**LOS ANGELES, CALIFORNIA**

## **ENGINEERING STATEMENT**

### **Introduction**

ABC Holding Company, Inc. (KABC) is the licensee of KABC-TV, Los Angeles, California. KABC is licensed to operate NTSC analog facilities on channel 7 with an effective radiated power of 141 KW at a height above average terrain of 978 meters. FCC File Number BLCT-19840619KF describes the KABC-TV analog channel 7 facilities. This license describes the facilities that were used as the basis for DTV replication facilities.

KABC-TV began broadcasting in September of 1949 and has been serving Los Angeles and nearby communities on channel 7 continuously since that time.

In the Seventh Report and Order, KABC was assigned a DTV Allotment on Channel 7 of 11.2 KW at 978 meters HAAT with a directional antenna which bears Antenna ID 74603. This HAAT is identical to the HAAT of the main NTSC antenna.

KABC-DT was one of several stations that committed to initiating DTV operation in November of 1998. KABC was able to meet that commitment, and has been continuously broadcasting Digital Television on channel 53 since November 1, 1998. The DTV Construction Permit, FCC File Number BPCDT-19980430KE, and the subsequent license file number BLCDT-199981112KF describe the presently licensed KABC-DT facilities which operate on channel 53.

The directional pattern associated with the KABC-DT post-transition channel 7 DTV facilities in Appendix B of the Seventh Report and Order is derived from the KABC-DT 1998 Initial Allotment pattern. The initial allotment pattern was derived for use at channel 53. This UHF pattern was then converted for post-transition VHF DTV operation on channel 7. This channel 7 pattern, converted from the UHF Initial Allotment pattern, is found in Appendix B and bears FCC Antenna ID Number 74603.

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Through this application, KABC seeks to obtain a Construction Permit to operate post transition DTV facilities on channel 7, and use the presently licensed NTSC channel 7 antenna, which is a Harris TAV-6H CPV. This antenna is the same antenna that formed the basis for the channel 53 replication pattern.

KABC respectfully requests a waiver of the requirements of the present TV Freeze in accordance with the criteria outlined on the Filing Freeze Waiver Policy in Paragraph 151 of the Report and Order in the Third Periodic Review. The facilities described in this application for Construction Permit meets each of the criteria that are shown on Paragraph 151, and will prevent the loss of service which would occur if KABC-DT were forced to an antenna other than its presently licensed channel 7 antenna for post-transition service. The Appendix B antenna replication pattern 74603 contains asymmetry, which itself is difficult to accurately control in common VHF transmitting antenna design.

Processing under the Paragraph 151 criteria will enable KABC-DT to use the presently licensed channel 7 antenna – a non-directional VHF antenna with electrical and mechanical beam tilt - without loss of service to those viewers who receive KABC-TV off-the-air presently and have an expectation of being able to receive KABC-DT off-the-air in the post-transition era.

**Licensed Facility**

The KABC-TV license bears FCC File Number BLCT-19840619KF and specifies an ERP of 141 KW at 978 meters HAAT. This facility is the equivalent of a full NTSC facility for channel 7 operation in Television Zone II.

Through this application KABC-DT seeks a construction permit to return to its NTSC channel to operate post-transition facilities on channel 7 with the non-directional antenna at the presently licensed HAAT of 978 meters with an ERP of 13.2 KW. This ERP satisfies the requirements of Section 73.622(f)(6) which limit a full DTV facility in Television Zone II with an HAAT of 978 meters to no more than 13.2 KW on channel 7.

The presently licensed antenna is supported by a tower which bears Antenna Structure Registration Number 1010346. The Harris six-bay cavity-backed circularly polarized antenna, Harris model number TAV-6H CPV, is described on page 2 of BLCT-19840619KF. The separate aural antenna will not be a part of the main antenna system in post-transition operation.

### **The KABC-TV Main License Expiration Date**

The KABC-TV Main License bears an expiration date of December 1, 2006. A timely application for renewal of the KABC licenses was filed with the Commission and bears FCC File number BRCT-20060810ANG and was accepted for filing on August 18, 2006. The instant application is acceptable for filing pending a final determination by the Commission on the outstanding application for renewal of the KABC-TV main license.

### **Interference Calculation Methodology**

The results of interference calculations that are contained in this engineering statement were obtained by Longley-Rice methods that are described in OET Bulletin 69, July 1997, as implemented in the Commission's software TV\_Process with 2 KM cell size. The post-transition data that were used for these calculations were obtained from the post-transition database that was bundled with Check\_AppB Fortran source code and released by the FCC on Tuesday, February 26, 2008. The population census data were obtained from the Year 2000 Census. This methodology and the associated Longley-Rice parameters and cell size are described in the Report and Order in the Third Periodic Review at Paragraph 155.

### **Protection to Post-Transition DTV Authorized Facilities and Allotments**

Television channel 7 was tentatively designated for post-transition operation by KABC-DT during the channel election process. Channel 7 is shown in the DTV Table of Allotments of Section 73.622 of the Rules, and in Appendix B for use by KABC-DT, Facility ID number 282. The facilities associated with this allotment are also shown in Appendix B of the Seventh Report and Order, which was released August 6, 2007. The interference studies conducted and the results of those calculations that are shown in this statement are based on the facilities contained in Appendix B, and the post-transition database that is described above.

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The designated facilities described in Appendix B that are associated with post-transition operation of KABC-DT contain a directional antenna pattern and a maximum of 11.2 KW ERP. The directional pattern, Antenna ID 74603 that is referenced in Appendix B is a product of determining the azimuth relative field pattern of the licensed VHF antenna, which bears FCC Antenna ID 19234, in the horizontal direction, then modifying this pattern for appropriate channel 53 UHF characteristics, such as the Commission's UHF vertical pattern, and then returning this UHF pattern to VHF again, and adjusting the pattern at horizontal to accommodate the differences in UHF and VHF vertical patterns as well as the differences in the F(50:50) curves and the F(50:90) curves. The result is the pattern that is found in Appendix B, which bears Antenna ID number 74603.

A study was conducted to determine what effective radiated power would satisfy the requirements outlined in Paragraph 151 of the Report and Order in the Third Periodic Review. This Filing Freeze Waiver Policy contains three basic requirements which:

1. Would allow the station to use its analog antenna or another antenna to avoid a significant reduction in post-transition service;
2. Would be no more than 5 miles larger in any direction than the authorized service area as defined in Appendix B; and
3. Would not cause impermissible interference, i.e., would not cause more than 0.5 percent new interference to other stations.

The study results as obtained through use of the Commission's TV Process software indicate that 13.2 KW ERP DA Max and the presently licensed NTSC channel 7 antenna will satisfy each of the criteria contained in Paragraph 151.

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Operation with the antenna that is described in Appendix B with an ERP of 11.2 KW DA-Max and the 74603 antenna pattern, if such a pattern could be built, provides coverage to 15,562,000 persons, according to the results that are shown in Appendix B. A calculation to check the population served by the KABC-DT post-transition Appendix B facility produced a result of 15,562,021 persons, which is close agreement with the Commission's result. This lends some confidence that the calculations are being performed with reasonable accuracy and that the input data for Appendix B facilities is in close agreement with the Commission's input data.

If KABC-DT were restricted to the use of its presently licensed Harris 19234 analog antenna for post-transition operation without exceeding the Noise Limited contour that is predicted by the KABC-DT Appendix B facility, the ERP would be limited to just a little more than 7.0 KW. The coverage obtained from these parameters is 15,505,527 persons. The difference between the Appendix B facility and the smaller 7.0 KW facility with the Harris non-directional antenna would cause a loss of post-transition DTV coverage to 56,494 persons.

Operation with 13.2 KW ERP and the presently licensed NTSC channel 7 antenna which bears Antenna ID number 19234 produces coverage of 15,597,982 persons after consideration of losses to terrain and interference from post-transition DTV facilities as found in Appendix B, according to results from TV\_Process calculations.

Calculations made using the presently licensed NTSC analog antenna with 13.2 KW ERP shows no new interference is created to any affected station. This satisfies the first of the three criteria in Paragraph 151.

Distances to predicted 36 dBu F(50:90) noise limited contours for the proposed 13.2 KW non-directional operation and the directional antenna that is described in Appendix B are shown in Exhibit 1 and Exhibit 2. The greatest excursion of the predicted noise-limited contour for the proposed 13.2 KW when used with the presently licensed KABC analog 19234 channel 7 antenna is 3.41 miles at 045 degrees true. The second greatest excursion occurs at true north (0.0 degrees true) and is 3.36 miles. The distances to contours in Exhibit 1 and Exhibit 2 are shown in kilometers: 3.41 miles is equal to 5.46 kilometers and 3.36 miles is 5.38 kilometers. These differences between the KABC Appendix B facility and the facility proposed are the largest to be found upon review of the distances

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contained in Exhibit 1 and Exhibit 2. The Exhibits contain the results of distance calculations in kilometers as produced by FCC Curves. A distance of 5 miles is slightly greater than 8 kilometers. This satisfies the second of the three criteria in Paragraph 151.

The third criterion in Paragraph 151 is satisfied in that KABC-TV will be returning to channel 7 for post-transition operation from channel 53, and the proposed use of its presently licensed antenna will satisfy each of the criteria contained in Paragraph 151.

**Interference Calculations**

The TV\_Process calculations of new interference to other stations caused by the use of 13.2 KW ERP with the presently licensed 19234 KABC directional NTSC antenna in place of the Appendix B facilities for KABC identified three affected stations and show the following results:

KLAS-TV, Las Vegas, Nevada	Proposal Causes No Interference
KAIL, Fresno, California	Proposal Causes No Interference
KFMB-TV, San Diego, California	No Additional Interference

The only numerical results were reported in the interference calculation to KFMB, San Diego, CA. The same number of persons were lost to interference in the before analysis (the Appendix B facilities as were reported in the after (the instant proposal) analysis which indicates that no new interference is created by KABC post-transition channel 7 DTV operation with the presently licensed NTSC antenna when operating with 13.2 KW ERP. The calculations show no increase in interference whatsoever to post-transition operation of KFMB-DT on channel 8. The results of the interference study shows no new interference is created to any of the stations studied. The results contained in the interference study satisfies the last of the three criteria in Paragraph 151.

### **Protection to Class A Stations**

There are two Class A TV stations that require study. The co-channel station K07TA, Construction Permit BMPTVA-20070508AAW and Licensed location BLTTV-19850701IB are approximately 208.4 kilometers and 222.6 kilometers distant respectively. The intervening terrain causes much higher signal losses than contour study methods would indicate. Exhibit 5, Page 1 is a terrain profile between the KABC-TV transmitter and the K07TA location that is described in Construction Permit BMPTVA-20070508AAW. Exhibit 5, Page 2 is a terrain profile between the KABC-DT transmitter and the location that is described in the K07TA license, BLTTV-19850701IB. In each case, the intervening terrain causes severe attenuation of KABC-DT channel 7 signals and no interference is predicted to occur. The azimuth angle from KABC-DT to the licensed location is 288.0 degrees and the azimuth angle to the construction permit location is 292.0 degrees.

The last Class A station that required study is KASC-CA, BLTVL-19990806JD. This station also operates on channel 7 (former call sign K07WA). This station is located at a greater distance than K07TA and in the same general direction, with a calculated azimuth of 300.0 degrees from the KABC-DT transmitter. As such, the signal path between the two sites traverses almost identical terrain as the K07TA example, but the path is longer – 277.6 kilometers to the KASC-CA site – as opposed to the shorter distances of 208.4 or 222.6 kilometers to K07TA.

Because of the severe intervening terrain between KABC-DT and the Class A stations studied, no interference to any Class A station is predicted.

### **Protection to Nearby AM Stations**

There is no AM station within 3.2 kilometers of the KABC-TV site.



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### **Protection to FCC Monitoring Stations and Radio Astronomy Installations**

Section 73.1030 defines criteria by which FCC Monitoring Stations and other protected receiving facilities are protected from changes to their radio receiving environment.

The nearest FCC Monitoring Station is located in Livermore, California. It is located more than 510 KM from the KABC transmission system. The greatest study distance for transmission systems that operate in the 174 to 180 MHz range is 80 kilometers, per Section 73.1030(c)(3), and the distance to the monitoring station alone satisfies the requirements of Section 73.1030 to protect FCC Monitoring Stations.

The nearest protected receiving location is Table Mountain, Colorado. The great distance to the protected receiving location is sufficient to satisfy the requirement to protect this facility. This agrees with TV Process results which report the instant proposal needs no further consideration of protection to the Table Mountain receiving location.

### **Principal Community Coverage**

Exhibit 3 is a map which depicts the 43 dBu F(50:90) contour and demonstrates that the entire city of Los Angeles, California is contained within this contour. This map also depicts the 36 dBu noise limited contour. This clearly demonstrates compliance with the requirement to cover the city of license with a 43 dBu F(50:90) contour as outlined in Section 73.625(a)(1) of the Commission's Rules.

## **Environmental Considerations**

### **Introduction**

The KABC transmitter facility is located at Building 15, Video Road, Mount Wilson, California. This location is a unique location to serve the City of Los Angeles. Several towers are located in the immediate vicinity of the KABC-TV transmission system. In addition, more towers are distributed over the ridge that overlooks Los Angeles and the surrounding area. These towers support most of the television and FM radio stations that serve Los Angeles and other nearby cities. The KABC transmitter has used this site for most of its broadcasting history.

The proposed post-transition operation of KABC specifies use of the existing channel 7 antenna which is presently licensed and in NTSC service. Because an existing antenna is proposed for post-transition operation, there will be no construction required and there will be no physical impact to the environment from the proposed operation.

### **Compliance with Section 1.1307 and the Limits Contained in 1.1310**

The last study of the radiofrequency environment at the KABC transmitter was made as a part of the license renewal application and was prepared in July, 2006. The facilities included in that study were checked and found to be unchanged since the date of the study. The status of the various facilities near the KABC transmitter were verified by KABC engineering personnel on March 19, 2008 to be unchanged since the last study to measure human exposure to radiofrequency energy, which was completed in July, 2006. The results of that measurement program were used in their entirety as an indication of the present radiofrequency environment in and near the KABC transmitter facility.

Because DTV operations on NTSC channels specify operating power levels that are typically 10 dB or more below those of presently operating NTSC stations, and because NTSC operation will cease at the end of the transition, the results presented in this statement represent a maximum expected level of human exposure to radiofrequency energy at and near the KABC transmitter facilities.

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The ABC Holding Company, Inc, licensee of KABC-TV and KABC-DT, Los Angeles, California, authorized a comprehensive measurement program in order to assess compliance with the exposure limits as contained in Section 1.1310 of the Commission's Rules. These Survey Measurements were conducted on July 24, 25, and 26, 2006 in the uncontrolled areas of the Mount Wilson communications site, as directed by KABC-TV on behalf of KABC-TV, KABC-DT, and several other television broadcasters who operate transmitter facilities on Mount Wilson. This Survey was conducted at ground level and included those locations which are accessible to the general public. The data obtained in the ground level survey were obtained by the undersigned under the direction of Mr. Richard A. Tell, and these same data were supplied to Mr. Tell for his analysis. A letter report was supplied by Mr. Tell to the KABC-TV Vice President of Engineering on July 31, 2006. The results of the analysis in Mr. Tell's letter support a conclusion that after the data were analyzed, those areas that were located outside of locked, physically controlled areas, were found to comply with the FCC Maximum Permissible Exposure Limits as contained in Section 1.1310, and that most areas were compliant generally within a wide margin. A vast majority of the locations produced measurements which were in the range of 10 to 50 percent of the MPE for Uncontrolled locations. Additional detailed measurements were carried out at those areas which exhibited elevated spatial peak fields. The results of Mr. Tell's analysis indicate that the range of values for spatial averages of data which were taken four specific locations in uncontrolled areas ranged 57.4% to 79.6% of the MPE limit for Uncontrolled areas.

**Instrumentation and Measurements**

The measurements described in this Statement were made with a broadband, isotropic, electric field probe, NARDA Model B8742D, serial number 03002 and a NARDA Model 8715 Digital RF Survey Meter, serial number 01028. Both the meter and probe were calibrated by the manufacturer less than 60 days prior to the measurement dates. Measurement results, a description of the measurement technique, and the limits of probe indications, as well as meter and probe calibration data and certificates are contained in Mr. Tell's Letter Report of July 2006, as well as a detailed description of the methods used to evaluate the data.

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The KABC-TV Transmitter facility is located on Video Road in Building 15, Mount Wilson, California. The facility is entirely contained within a fence. No Trespassing signs as well as signs which warn the reader that elevated levels of radio frequency fields are found beyond the fence are placed to warn persons to keep out of the fenced area. In addition, a sign mounted on the fence bears the Structure Registration Number of the KABC-TV tower, which is 1010346. Also, signs are placed on the stairs which access the tower at stairway gate on the first landing level, which warn persons not to proceed beyond the locked gate at the first landing level during normal operation of the transmitter facility because fields which exceed the MPE for Uncontrolled and Controlled areas are found beyond that point. Additional signs on the perimeter fence contain the warning, "No Trespassing."

The KABC-TV NTSC antenna, which is the antenna proposed for post-transition DTV use, has a center of radiation of 137.5 meters above ground level. The KABC-DT channel 53 antenna has a center of radiation of 81.4 meters above ground level.

Measurements were made at ground level within the KABC-TV perimeter fence, specifically around the base of the tower and in the KABC-TV transmitter building. In this series of measurements the highest spatial peak observed outside the KABC-TV transmitter building but within the KABC-TV fenced area was found to be 57.2% of the MPE for Uncontrolled areas. During the time these measurements were made, KLOS (FM) was operating from its auxiliary antenna which is much lower to ground level than the main antenna. It is believed that this condition produces the largest radio frequency exposure contribution at ground level from KLOS. The KLOS main antenna, which is a Harris Cavity-Backed Radiator design and minimizes downward radiation, is located at 112 meters above ground level. The KLOS Auxiliary antenna is a 'roto-tiller' design and was not designed to minimize downward radiation, but after reviewing the data from ground level measurements, it is believed that the lower ice shield on the KABC-TV tower provides some shielding of the KLOS signal. The KLOS auxiliary antenna center of radiation is located 49 meters above ground level. The KLOS main antenna is described in FCC File Number BLH-19840702KJ, and is located with a center of radiation of 112 meters above ground level. The KLOS auxiliary antenna is described in FCC File Number BMLH-19850523KJ. The KLOS main antenna was out of service at the time of the measurements to install a new feed system and associated coaxial transmission lines.

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Additionally, measurements were made in the KABC-TV transmitter room, during operation of the transmitter that is located nearest to the entrance doorway. During this series of measurements a relative maximum value of 12.5% of the Uncontrolled MPE was found. This relative maximum value was found near the 7-way combiner for the visual transmitter cabinets of the transmitter in operation. The maximum spatial peak that was observed in the transmitter room was found directly opposite the visual and aural diplexer at the top of the transmitter cabinet. This maximum value was 13.1% of the FCC Limit for Uncontrolled areas. In other areas, including the front and rear of each transmitter and all associated combiners, the vast majority of the readings were in the 5.6% to 7.5% range.

In the old transmitter room, a maximum of 12.5% of the MPE for Uncontrolled areas was found between the wall and the new coaxial switching equipment. No other equipment is energized in this room, as the old transmitters found here have been de-commissioned. The range of readings which were taken elsewhere in the old transmitter room was 2.7% to 5.5% of the Uncontrolled Limit.

With all contributors operating as authorized, the results of Mr. Tell's analysis of measurement data taken by the undersigned indicate that the range of values for spatial averages of data which were taken four specific locations in uncontrolled areas ranged 57.4% to 79.6% of the MPE limit for Uncontrolled areas. A majority of the measurements indicate that the power density at ground level to two meters above ground level usually was found to be between 10% to 50% of the Maximum Permitted Exposure limit for Uncontrolled areas which is well within the limit contained in Section 1.1310 of the Rules for Uncontrolled Areas. As a result, the ground level area of the KABC Transmitter Site meets the requirements for an Uncontrolled Area.

Within the perimeter fence surrounding the KABC-TV transmitter building and outside of the transmitter building itself, the highest peak spatial value was found to be 57.2% of the MPE for Uncontrolled areas.

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Within the KABC-TV transmitter building, the maximum spatial peak value was 13.1% of the FCC Limit for Uncontrolled areas. In other areas, including the front and rear of each transmitter and all associated combiners, the vast majority of the readings were in the 5.6% to 7.5% range, confirming that RF energy is being properly confined by coaxial transmission lines, transmitter cabinetry and RF components. As a result, the transmitter building meets the Commission's requirements for Uncontrolled Areas.

**RF Exposure Safety Practices**

For administrative and safety purposes, the entire KABC tower above the access stairway first landing level where a locked gate is located is treated as a Controlled Area. Only those who have been properly instructed with regard to RF Safety should be allowed beyond this point.

For administrative and safety purposes, the entire KABC tower is treated as a Controlled Area where only those who have been properly instructed in safe tower climbing practices or those who are experienced or qualified tower climbers and employed by recognized tower maintenance and construction organizations are allowed.

This analysis does not address safety issues while working aloft. These data and results are not intended to address occupational exposure issues that are associated with personnel while working in certain access controlled locations while aloft on towers. Considerations for persons working aloft are a part of a modified site RF Safety Program that is documented and is updated as required by changes in operating parameters of the broadcasting facilities on Mount Wilson.

The KABC-TV, KABC-DT and tenant station KLOS (FM) facilities as presently authorized meet the Commission's requirements as described in Section 1.1310 and Section 1.1307(b) of the Rules regarding human exposure to radiofrequency energy.

The KABC-TV and KABC-DT facilities as proposed and as presently authorized and operating, meet the Commission's requirements as described in the Rules, and as such, no Environmental Assessment is required for this location.

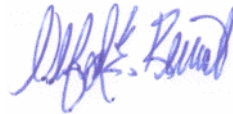
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**Conclusion**

The proposed KABC-DT post-transition DTV operation meets the requirements of the Commission's Rules, including the interference provisions of Section 73.616 for post-transition operation, with the exception that the noise-limited contour is not completely contained within the predicted noise limited contour produced by the Appendix B facilities. The extension of the noise limited contour is within the 5 mile tolerance that is described in Paragraph 151 of the Report and Order in the Third Periodic Review. KABC-DT respectfully requests a waiver to extend its noise limited contour within the limits outlined in Paragraph 151, in order to use its presently licensed analog antenna and to continue to serve the 56,494 persons that would otherwise be lost.

**Certification**

I certify that, on behalf of the ABC Holding Company, Inc., licensee of KABC-TV and KABC-DT, the information in this statement was prepared by me or under my supervision with the assistance of Zar B. Aung, EIT. On behalf of the ABC Holding Company, Inc., I have prepared and reviewed the information that is contained in this Statement, and that after such review and examination have found it to be accurate and true to the best of my knowledge and belief.



Signed: \_\_\_\_\_  
Alfred E. Resnick, P. E.

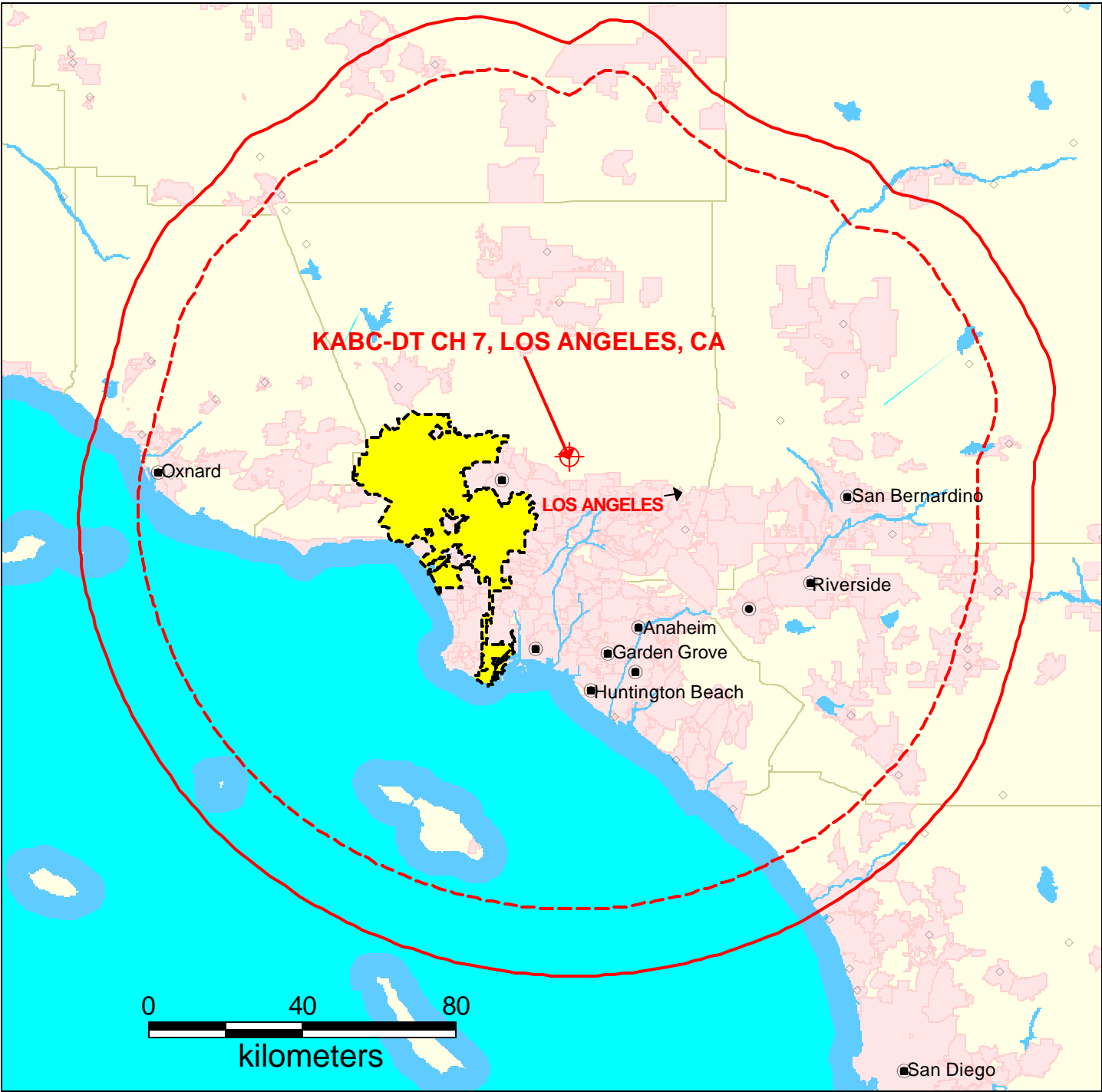
Dated: March 21, 2008

	<b>KABC, LOS ANGELES, CA</b> <b>(DTV - Appendix B Facility)</b> <b>Latitude: 34 13 37 Longitude: 118 3 58</b> <b>CH. 7, 11.2 kW, 978 mHAAT,</b> <b>1877 mRCAMSL, 74603 D-ANT</b> <b>PREDICTED 36 dBu, F(50,90)</b> <b>NOISE LIMITED CONTOUR</b>	<b>KABC, LOS ANGELES, CA</b> <b>(DTV - Proposed Post Transition)</b> <b>Latitude: 34 13 37 Longitude: 118 3 58</b> <b>CH. 7, 13.2 kW, 978 mHAAT,</b> <b>1877 mRCAMSL, HAR 19234 D-ANT</b> <b>PREDICTED 36 dBu, F(50,90)</b> <b>NOISE LIMITED CONTOUR</b>
Radial	Distance (km)	Distance (km)
0	101.64	107.02
10	107.32	112.2
20	96.79	101.73
30	94.39	99.25
40	99.46	104.96
50	102.16	107.46
60	113.76	118.79
70	117.5	121.83
80	121.71	125.5
90	116.04	119
100	119.49	120.7
110	122.8	123.67
120	126.02	127.15
130	129.19	130.85
140	130.2	132.14
150	130.58	132.61
160	130.69	132.81
170	130.6	132.78
180	130.33	132.63
190	130.08	132.4
200	129.75	132.08
210	129.62	131.84
220	129.69	131.92
230	129.23	131.26
240	128.37	130.12
250	127.49	128.96
260	126.38	127.56
270	123.09	124.09
280	118.82	119.83
290	118.84	120.09
300	117.16	119.13
310	112.44	115.1
320	110.31	113.51
330	111.83	115.72
340	112.68	117.26
350	110.26	115.05



## Exhibit 2

	<b>KABC, LOS ANGELES, CA</b> <b>(DTV - Appendix B Facility)</b> <b>Latitude: 34 13 37 Longitude: 118 3 58</b> <b>CH. 7, 11.2 kW, 978 mHAAT,</b> <b>1877 mRCAMSL, 74603 D-ANT</b> <b>PREDICTED 36 dBu, F(50,90)</b> <b>NOISE LIMITED CONTOUR</b>	<b>KABC, LOS ANGELES, CA</b> <b>(DTV - Proposed Post Transition)</b> <b>Latitude: 34 13 37 Longitude: 118 3 58</b> <b>CH. 7, 13.2 kW, 978 mHAAT,</b> <b>1877 mRCAMSL, HAR 19234 D-ANT</b> <b>PREDICTED 36 dBu, F(50,90)</b> <b>NOISE LIMITED CONTOUR</b>
Radial	Distance (km)	Distance (km)
0	101.64	107.02
45	102.46	107.92
90	116.04	119
135	129.24	131.06
180	130.33	132.63
225	129.55	131.70
270	123.09	124.09
315	113.15	116.33



**PREDICTED COVERAGE CONTOURS**

KABC-DT Ch 7, Los Angeles, CA  
13.2 kW, 978 mHAAT  
1877 mRCAMSL, HAR 19234

Predicted Noise Limited Coverage Contour  
F(50,90), 36 dBu

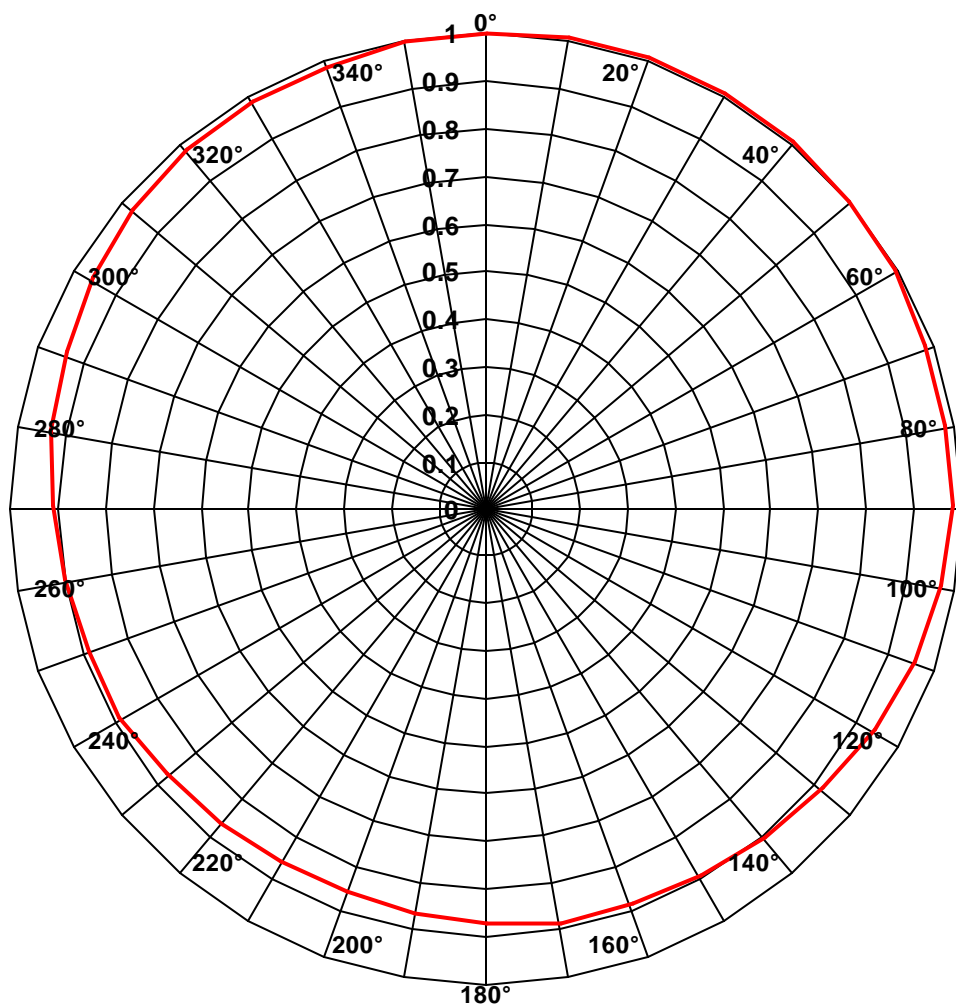
Predicted Principal Community Coverage Contour  
F(50,90), 43 dBu

MARCH 2008

**CARL T. JONES**  
CORPORATION

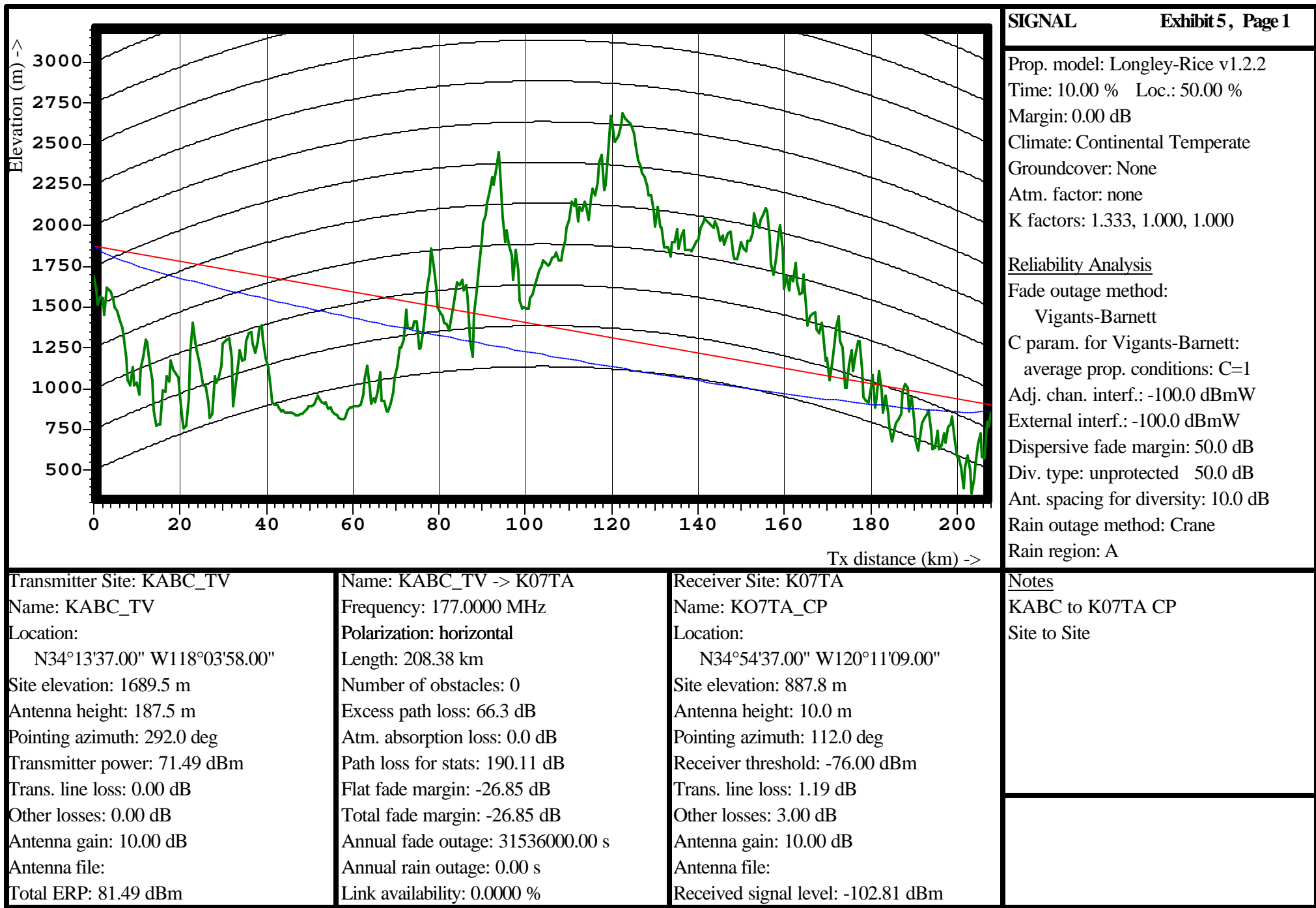
# Exhibit 4

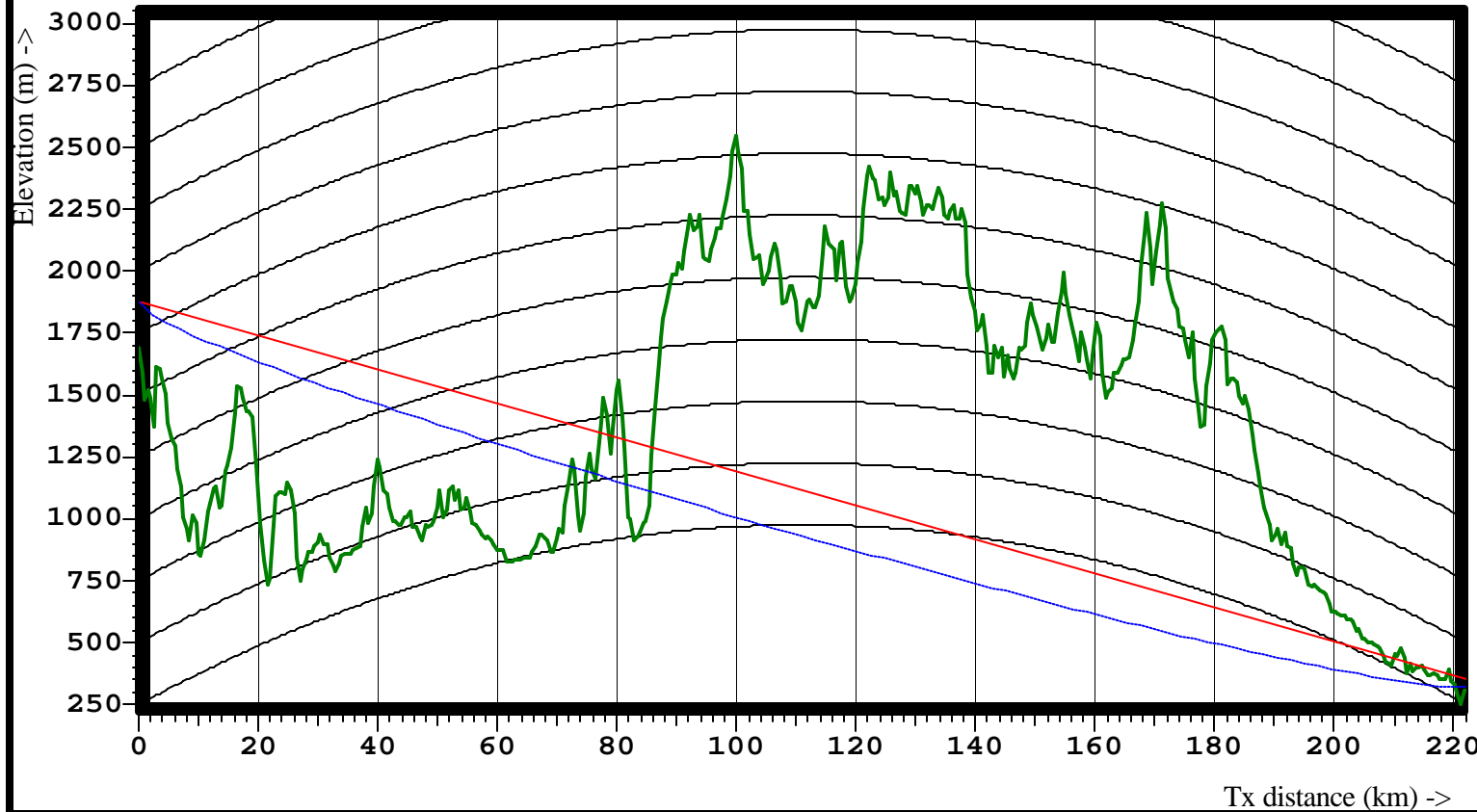
True North



Azimuth (deg T.)	Relative Field	ERP (kilowatts)	ERP (dBk)
0	0.99	12.937	11.118
10	1	13.200	11.206
20	1	13.200	11.206
30	1	13.200	11.206
40	1	13.200	11.206
50	0.99	12.937	11.118
60	0.99	12.937	11.118
70	0.98	12.677	11.030
80	0.98	12.677	11.030
90	0.98	12.677	11.030
100	0.97	12.420	10.941
110	0.96	12.165	10.851
120	0.94	11.664	10.668
130	0.92	11.172	10.481
140	0.91	10.931	10.387
150	0.9	10.692	10.291
160	0.89	10.456	10.194
170	0.89	10.456	10.194
180	0.88	10.222	10.095
190	0.87	9.991	9.996
200	0.86	9.763	9.896
210	0.86	9.763	9.896
220	0.87	9.991	9.996
230	0.88	10.222	10.095
240	0.89	10.456	10.194
250	0.89	10.456	10.194
260	0.9	10.692	10.291
270	0.91	10.931	10.387
280	0.93	11.417	10.575
290	0.94	11.664	10.668
300	0.96	12.165	10.851
310	0.97	12.420	10.941
320	0.98	12.677	11.030
330	0.98	12.677	11.030
340	0.98	12.677	11.030
350	0.99	12.937	11.118

**DIRECTIONAL ANTENNA HORIZONTAL PLANE  
RELATIVE FIELD PATTERN  
POST TRANSITION KABC-DT CH 7, LOS ANGELES, CA  
13.2 kW, HAR 19234 D-ANT**





Prop. model: Longley-Rice v1.2.2  
Time: 10.00 % Loc.: 50.00 %  
Margin: 0.00 dB  
Climate: Continental Temperate  
Groundcover: None  
Atm. factor: none  
K factors: 1.333, 1.000, 1.000

#### Reliability Analysis

Fade outage method:

Vigants-Barnett

C param. for Vigants-Barnett:

average prop. conditions: C=1

Adj. chan. interf.: -100.0 dBmW

External interf.: -100.0 dBmW

Dispersive fade margin: 50.0 dB

Div. type: unprotected 50.0 dB

Ant. spacing for diversity: 10.0 dB

Rain outage method: Crane

Rain region: A

Transmitter Site: KABC\_TV  
Name: KABC\_TV  
Location:  
N34°13'37.00" W118°03'58.00"  
Site elevation: 1689.5 m  
Antenna height: 187.5 m  
Pointing azimuth: 288.3 deg  
Transmitter power: 71.49 dBm  
Trans. line loss: 0.00 dB  
Other losses: 0.00 dB  
Antenna gain: 10.00 dB  
Antenna file:  
Total ERP: 81.49 dBm

Name: KABC\_TV -> K07TA  
Frequency: 177.0000 MHz  
Polarization: horizontal  
Length: 222.62 km  
Number of obstacles: 0  
Excess path loss: 68.5 dB  
Atm. absorption loss: 0.0 dB  
Path loss for stats: 192.85 dB  
Flat fade margin: -29.59 dB  
Total fade margin: -29.59 dB  
Annual fade outage: 31536000.00 s  
Annual rain outage: 0.00 s  
Link availability: 0.0000 %

Receiver Site: K07TA  
Name: K07TA\_Lic  
Location:  
N34°50'06.00" W120°22'56.00"  
Site elevation: 346.6 m  
Antenna height: 10.0 m  
Pointing azimuth: 108.3 deg  
Receiver threshold: -76.00 dBm  
Trans. line loss: 1.19 dB  
Other losses: 3.00 dB  
Antenna gain: 10.00 dB  
Antenna file:  
Received signal level: -105.55 dBm

#### Notes

KABC to K07TA LIC

Site to Site

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 03-14-2008 Time: 14:13:06

Record Selected for Analysis

KABC-TV BDTV -NEWKABCDT7 LOS ANGELES CA US  
Channel 07 ERP 13.2 kW HAAT 978.0 m RCAMSL 1877. m  
Latitude 034-13-37 Longitude 0118-03-58  
Status CP Zone 2 Border  
Dir Antenna Make CDB Model 00000000019234 Beam tilt Y Ref Azimuth 0.0  
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 (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	12.937	466.2	106.7
45.0	13.068	446.3	105.3
90.0	12.677	705.3	118.1
135.0	10.769	1451.1	131.5
180.0	9.920	1572.8	132.4
225.0	9.821	1530.8	131.7
270.0	10.794	1068.4	124.2
315.0	12.548	658.2	116.5

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KABC-TV 07 LOS ANGELES CA BDTV NEWKABCDT7

and station

SHORT TO: KABC-DT 07 LOS ANGELES CA DTVPLN DTVP1453  
034-13-37 0118-03-58  
Req. separation 273.6 Actual separation 0.0 Short 273.6 km

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountian

Proposed facility is beyond the Canadian coordination distance

Proposed facility is within the Mexican coordination distance  
Distance to border = 207.5km

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
07	KABC-TV	LOS ANGELES CA	BDTV NEWKABCDT7

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
07	KLAS-TV	LAS VEGAS NV	334.8	CP	BPCDT -20020418AAD
07	KAIL	FRESNO CA	339.5	LIC	BLCDT -20021002ABH
08	KFMBTV	SAN DIEGO CA	171.9	LIC	BLCT -2176

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application Ref. No.
07	KLAS-TV	LAS VEGAS NV	BPCDT -20020418AAD

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
07	KAIL	FRESNO CA	411.6	LIC	BLCDT -20021002ABH
07	KAZT-TV	PRESCOTT AZ	299.9	CP	BPCDT -19991026ACO
07	KABC-TV	LOS ANGELES CA	334.8	CP	BDTV -NEWKABCDT7
07	KABC-DT	LOS ANGELES CA	334.8	PLN	DTVPLN -DTVP1453

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.
07	KAIL	FRESNO CA	BLCDT -20021002ABH

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
07	KRNV	RENO NV	252.4	LIC	BLCDT -20040622ABF
07	KLAS-TV	LAS VEGAS NV	411.6	CP	BPCDT -20020418AAD
07	KGO-TV	SAN FRANCISCO CA	277.2	CP	BDTV -0000
07	KABC-TV	LOS ANGELES CA	339.5	CP	BDTV -NEWKABCDT7
07	KABC-DT	LOS ANGELES CA	339.5	PLN	DTVPLN -DTVP1453
08	KSBW	SALINAS CA	187.3	CP	BFRCT -20050815ACD

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.
08	KFMBTV	SAN DIEGO CA	BLCT	-2176

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KABC-TV	LOS ANGELES CA	171.9	CP	BDTV	-NEWKABCDT7
07	KABC-DT	LOS ANGELES CA	171.9	PLN	DTVPLN	-DTVP1453
09	KCAL-TV	LOS ANGELES CA	172.0	CP	BFRCT	-20050516ATK
09	KEY-TV	EL CENTRO CA	227.0	CP MOD	BMPCDT	-20041028AFC

Total scenarios = 1

Result key: 1  
Scenario 1 Affected station 3  
Before Analysis

Results for: 8A CA SAN DIEGO BLCT 2176 LIC  
HAAT 226.0 m, ATV ERP 14.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3292714	26989.1
not affected by terrain losses	3092399	24523.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	5381	8.0
lost to ATV IX only	5381	8.0
lost to all IX	5381	8.0

Potential Interfering Stations Included in above Scenario 1

9A CA LOS ANGELES	BFRCT	20050516ATK	CP
7A CA LOS ANGELES	DTVPLN	DTVP1453	PLN

After Analysis

Results for: 8A CA SAN DIEGO BLCT 2176 LIC  
HAAT 226.0 m, ATV ERP 14.9 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3292714	26989.1
not affected by terrain losses	3092399	24523.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	5381	8.0
lost to ATV IX only	5381	8.0
lost to all IX	5381	8.0

Potential Interfering Stations Included in above Scenario 1

9A CA LOS ANGELES	BFRCT	20050516ATK	CP
7A CA LOS ANGELES	BDTV	NEWKABCDT7	CP

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Analysis of Interference to Affected Station 4

DTV Baseline Analysis

Channel	Call	City/State	Application Ref. No.
07	KABC-DT	LOS ANGELES CA	DTVPLN -DTVP1453

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
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Results for: 7A CA LOS ANGELES DTVPLN DTVP1453 PLN

HAAT 978.0 m, ATV ERP 11.2 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	16047459	44291.7
not affected by terrain losses	15580908	37472.6
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

Analysis of current record

Channel	Call	City/State	Application Ref. No.
07	KABC-TV	LOS ANGELES CA	BDTV -NEWKABCDT7

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
07	KLAS-TV	LAS VEGAS NV	334.8	CP	BPCDT -20020418AAD
07	KAIL	FRESNO CA	339.5	LIC	BLCDT -20021002ABH
08	KFMBTV	SAN DIEGO CA	171.9	LIC	BLCT -2176

Total scenarios = 1

Result key: 2  
Scenario 1 Affected station 4  
Before Analysis

Results for: 7A CA LOS ANGELES BDTV NEWKABCDT7 CP

HAAT 978.0 m, ATV ERP 13.2 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	16109692	46426.7
not affected by terrain losses	15639178	39444.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	41196	408.1
lost to ATV IX only	41196	408.1
lost to all IX	41196	408.1

Potential Interfering Stations Included in above Scenario 1

7A NV LAS VEGAS	BPCDT	20020418AAD	CP
7A CA FRESNO	BLCDT	20021002ABH	LIC
8A CA SAN DIEGO	BLCT	2176	LIC

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