

Exhibit 41 - Statement B
NATURE OF THE PROPOSAL
ALLOCATION CONSIDERATIONS

prepared for
Lincoln Broadcasting Company,
A California Limited Partnership
KTSF-DT San Francisco, California
Facility ID 37511
DTV Ch. 27 500 kW 403.4 m

Lincoln Broadcasting Company, A California Limited Partnership (“*Lincoln*”) is the licensee of television station KTSF(TV), San Francisco, California. In the Commission’s Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders on Advanced Television,¹ DTV Channel 27 was allotted as a “paired” channel for the KTSF analog Channel 26. *Lincoln* is authorized in the Construction Permit (“CP”), File No. BMPCDT-20000428AAT, to construct a “maximized” DTV facility² of 500 kilowatts effective radiated power (“ERP”) at 421 meters height above average terrain (“HAAT”) which exceeds the DTV reference ERP and HAAT of 91.1 kW and 421 meters for this station as established under §73.622(f)(1). Recently resolved site related issues now require *Lincoln* to side mount the KTSF-DT antenna on the same tower at a reduced radiation center (17.2 meters or 56.4 feet) below that authorized in the CP. With the site related issues resolved, the instant application seeks to modify the CP to specify the lower radiation center. No other changes to the authorized facility are proposed.

Specifically, the CP authorizes *Lincoln* to locate the KTSF-DT antenna atop the existing tower structure in the same location as the licensed KTSF-TV antenna at a radiation center of 70 meters above ground level. A “combined” Channel 26 and 27 antenna was envisioned in the underlying application. However, site related issues require *Lincoln* to abandon this plan. Therefore, *Lincoln* now seeks modification of its CP to authorize side-mounting the KTSF-DT antenna on the same tower as authorized in the CP except with a radiation center of 52.8 meters above ground level.

Since a combined Channel 26 and 27 operation is no longer required, the antenna

¹ See MM Docket 87-268, *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, FCC 98-315, released December 18, 1998.

² *Lincoln* is currently operating an interim DTV facility under a Special Temporary Authorization (File No. BDSTA-20020531ABH)

Exhibit 41- Statement B

(Page 2 of 4)

specification has been modified to employ an Andrew ATW15H3-HSP4-27H transmitting antenna for KTSF-DT with 0.75° of electrical beam tilt. The proposed KTSF-DT antenna will employ the same horizontal plane pattern as that specified in the construction permit.

Since the only material change from the specifications shown in the Construction Permit is a slight reduction in height of the antenna radiation center, the 41 dB μ F(50,90) contour for the proposed facility will be wholly encompassed by that as authorized, as demonstrated in the attached **Exhibit 41 – Figure 3**. **Exhibit 41-Figure 4** depicts the predicted coverage contours from the proposed KTSF-DT facility. As shown thereon, both the 41 dB μ service contour and the 48 dB μ enhanced principal community coverage contour required after December 31, 2004 fully encompass the principal community.

The service contour from the proposed facility does not extend past that as currently authorized in the CP, and the proposed change is a slight reduction in antenna height as demonstrated in **Exhibit 41 – Figure 3**. However, on the advice of Commission Staff and pursuant to ' 73.622(f)(5) of the Commission's rules, an interference study is supplied herein. As shown, it is believed that the instant proposal satisfies the Commission's published interference criteria.

A detailed interference study was conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission's Office of Engineering and Technology Bulletin number 69, Longley-Rice Methodology for Evaluating TV Coverage and Interference, February 6, 2004 (AOET-69").³ The interference study examined the net change in interference as experienced by other stations that would result from the proposed facility (in lieu of the reference KTSF-DT). The results of the study are provided in **Exhibit 41 – Table II**. The results show that any additional interference to these stations meets the Commission's 2% / 10% interference limits to all pertinent NTSC and DTV stations and allotments.

Class A Television Stations

³The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard cell size of 1 km was used. Comparisons of various results of this computer program (run on a Sun processor) to the Commission's implementation of OET-69 show good correlation.

Exhibit 41- Statement B

(Page 3 of 4)

With respect to television stations that have been granted a Class A License or hold a Class A Construction Permit, the instant proposal does not involve prohibited contour overlap to any Class A station, except for:

| <u>Call Sign</u> | <u>City, State</u> <u>Channel</u> |
|--------------------|--------------------------------------|
| KEXT-CA (Lic) | Modesto, CA 27 |
| K27EU (Lic) | Sacramento, CA 27 |
| KFTL-CA (Lic) | San Francisco, CA 28 |
| KFTL-CA (CPMod) | San Francisco, CA 28 |

Accordingly, detailed interference studies were conducted in accordance with OET Bulletin 69 to determine the impact of the proposed KTSF-DT antenna radiation center height reduction on the Class A facilities shown in the table.⁴ The results of the interference study regarding the Class A stations are summarized in **Exhibit 41 - Table III**. As shown therein, any increase in interference to Class A facilities is below the Commission's limit of 0.5%.

It should also be noted that the KTSF-DT facility being amended herein was originally authorized on January 26, 2001 long before KFTL-CA⁵ filed to relocate to Mt. San Bruno. Predicted interference from the authorized KTSF-DT facility to the KFTL-CA CPMOD facility was therefore known before KFTL-CA filed, and is established as the baseline reference. The study provided herein uses this existing interference reference for the "before" situation. The change in interference to KFTL-CA from the proposed KTSF-DT facility over that of the authorized KTSF-DT facility ("after") is noted in the study results. The change in interference is less than the 0.5% limit

⁴A nominal cell size of 1 km was employed. The service area for the involved analog Class A facility is that area predicted to receive signal levels of at least 74 dBμ using the Longley-Rice methodology, and within the 74 dBμ F(50,50) service contour distance as corrected with the dipole factor.

⁵KFTL-CA is required to protect KTSF-DT by Section 73.6013 of the Commission's Rules, as Lincoln filed its DTV "maximization" application for KTSF on May 1, 2000, and notified the Commission of its intent to maximize by December 31, 1999.

Exhibit 41- Statement B

(Page 4 of 4)

permitted by established Commission policy.

Other Considerations

The nearest FCC monitoring station is at Livermore, California, at a distance of 60.1 km from the proposed site. Using standard FCC F(50,90) “average elevation” methodology⁶ for prediction, the proposed facility would provide a 65.3 dB μ (1.84 mV/m) signal level at the FCC’s Livermore monitoring station.⁷ This level does not exceed the 10 mV/m guideline established in §73.1030(c)(1) regarding Commission monitoring stations. Further, based on informal consultations with the Commission’s Compliance and Information Bureau (CIB) Staff, the 10 mV/m signal level referenced in §73.1030(c)(1) was developed primarily for AM broadcast frequencies (540 - 1700 kHz), and higher signal levels at frequencies used by UHF television stations are acceptable. Commission staff has advised that their threshold for objection within the UHF television band is much higher than the 10 mV/m stated in §73.1030(c)(1). Thus, the predicted 1.84 mV/m signal level attributable to the proposed KTSF-DT is not expected to be objectionable to the Commission’s CIB Staff.

There are no AM broadcast stations within 3.2 km (2 miles) of the KTSF-DT site, according to information extracted from the Commission’s engineering database

⁶The methodology employed does not consider the intervening terrain (mountains) between the proposed KTSF-DT site and the Livermore Monitoring Station which “terrain block” the signal. Thus, the actual signal level at the monitoring station is expected to be much less than predicted above.

⁷The standard F(50,50) predicted signal level is 69.2 dB μ (2.88 mV/m), and the standard F(50,10) predicted signal level is 73.1 dB μ (4.52 mV/m).

Exhibit 41 - Table II
INTERFERENCE ANALYSIS RESULTS SUMMARY

prepared for

**Lincoln Broadcasting Company,
A California Limited Partnership**
KTSF-DT San Francisco, California
Facility ID 37511
Ch. 27 500 kW 403.4 m

DTV Facilities

| <u>Stations Considered</u> | <u>City, State Channel</u> | <u>Distance (km)</u> | <u>Baseline Population</u> (1) | <u>Calculated "Before" Service Population</u> (2) | <u>Calculated "After" Service Population</u> (3) | <u>---Net "New" Interference---</u> (<u>"2 percent" test</u>) | | <u>Percentage Reduction of Baseline Population ("10 percent" test)</u> (6) |
|----------------------------|----------------------------|----------------------|-----------------------------------|--|---|--|--------------------------|---|
| | | | | | | <u>Population</u> (4) | <u>Percentage</u> (5) | |
| KEYT-DT (Ref) | Santa Barbara, CA 27 | 415.6 | 1,276,000 | 1,185,314 | 1,185,298 | 16 | 0.00 | 7.11 |
| KEYT-DT (CPMod) | Santa Barbara, CA 27 | 415.6 | 1,276,000 | ---no interference caused by proposal--- | | | | |

NTSC Facilities

| <u>Stations Considered</u> | <u>City, State Channel</u> | <u>Distance (km)</u> | <u>Baseline Population</u> (1) | <u>Calculated "Before" Service Population</u> (2) | <u>Calculated "After" Service Population</u> (3) | <u>---Net "New" Interference---</u> (<u>"2 percent" test</u>) | | <u>---Total Interference---</u> <u>from DTV only ("10 percent" test)</u> | |
|----------------------------|----------------------------|----------------------|--|--|---|--|--------------------------|---|--------------------------|
| | | | | | | <u>Population</u> (4) | <u>Percentage</u> (5) | <u>Population</u> (7) | <u>Percentage</u> (8) |
| KBWB(TV) (Lic) | San Francisco, CA 20 | 7.8 | 5,891,095 | 5,644,280 | 5,643,284 | 996 | 0.02 | 210,849 | 3.58 |
| KBWB(TV) (CP) | San Francisco, CA 20 | 7.8 | 6,312,997 | 6,045,143 | 6,041,121 | 4,022 | 0.06 | 210,876 | 3.34 |
| KBSV(TV) (Lic) | Ceres, CA 23 | 130.9 | ---no interference caused by proposal--- | | | | | | |

Exhibit 41 - Table II
INTERFERENCE ANALYSIS RESULTS SUMMARY
 (page 2 of 3)

| <u>Stations Considered</u> | <u>City, State Channel</u> | <u>Distance (km)</u> | <u>Baseline Population</u> | <u>Calculated</u> | <u>Calculated</u> | <u>---Net "New" Interference---</u> | | <u>---Total Interference---</u> | |
|----------------------------|----------------------------|----------------------|----------------------------|------------------------------------|-----------------------------------|--|-------------------|--|------------------------------|
| | | | | <u>"Before" Service Population</u> | <u>"After" Service Population</u> | <u>Population</u> | <u>Percentage</u> | <u>from DTV only ("10 percent" test)</u> | <u>Population Percentage</u> |
| | | | (1) | (2) | (3) | (4) | (5) | (7) | (8) |
| KCAH(TV) (Lic) | Watsonville, CA 25 | 132.3 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |
| KCAH(TV) (CPMod) | Watsonville, CA 25 | 132.3 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |
| KREN-TV (Lic) | Reno, NV 27 | 286.6 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |
| KREN-TV (CP) | Reno, NV 27 | 286.6 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |
| KREN-TV (App) | Reno, NV 27 | 286.6 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |
| KSPX(TV) (App) | Sacramento, CA 29 | 104.9 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |
| KMAX-TV (Lic) | Sacramento, CA 31 | 104.9 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |
| KCBA(TV) (Lic) | Salinas, CA 35 | 132.4 | | | | | | | |
| | | | | | | ---no interference caused by proposal--- | | | |

Exhibit 41 - Table II
INTERFERENCE ANALYSIS RESULTS SUMMARY
(page 3 of 3)

- Notes:
- (1) For DTV stations, greater of NTSC or DTV Service Population, from FCC Table
For NTSC stations, total population within noise-limited contour
 - (2) Service population after reduction from terrain and interference losses, before consideration of proposal
 - (3) Service population after reduction from terrain and interference losses, considering proposal
 - (4) Net change in population receiving interference resulting from proposal, equals (2) minus (3). A negative number indicates a *reduction* in interference.
 - (5) Proposal-s impact in terms of percentage, equals (4)/(1) times 100 percent: not to exceed *de minimis* limit of 2.0 percent
 - (6) Total interference to DTV stations: equals 100 percent minus [(3)/(1) X 100%]; proposal may not add interference above 10% total. Zero total interference is indicated if (3) is greater than (1).
 - (7) NTSC station total population subject to interference from DTV only sources (considering proposal)
 - (8) Proposal-s impact to NTSC station in terms of percentage, equals (7)/(1) times 100 percent; proposal may not add interference above 10% total

The determination of stations for consideration and the determination of baseline population and interference percentages were made as described in the Commission-s August 10, 1998 Public Notice *Additional Application Processing Guidelines for Digital Television*@

Exhibit 41 - Table III

CLASS A STATION INTERFERENCE ANALYSIS RESULTS SUMMARY

prepared for

**Lincoln Broadcasting Company,
A California Limited Partnership
KTSF-DT San Francisco, California
Facility ID 37511
Ch. 27 500 kW 403.4 m**

| <u>Stations Considered</u> | <u>City, State Channel</u> | <u>Distance (km)</u> | <u>Baseline Population</u> (1) | <u>Service Population</u> (2) | <i>---Unique Interference--- from proposal</i> | |
|--------------------------------|--------------------------------|--------------------------|---------------------------------------|--|--|--------------------------|
| | | | | | <u>Population</u> (3) | <u>Percentage</u> (4) |
| KEXT-CA (Lic) | Modesto, CA 27 | 98.4 | 452,562 | 443,215 | 0 | 0.00 |
| K27EU (Lic) | Sacramento, CA 27 | 160.4 | | ---no interference caused by proposal--- | | |
| KFTL-CA (Lic) | San Francisco, CA 28 | 54.8 | 1,250,616 | 1,231,087 | 1,398 | 0.11 |
| KFTL-CA (CPMod) | San Francisco, CA 28 | 0.1 | 2,788,815 | 2,181,515 | 8,625 | 0.31 ¹ |

OET-69 Class A station analysis notes:

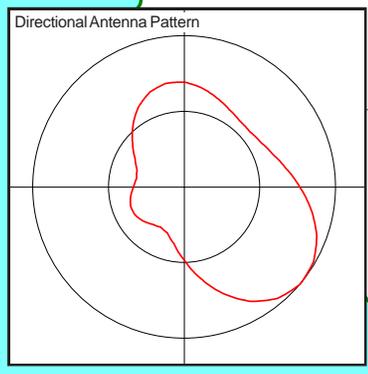
- (1) Population within 74 dBμ service contour, adjusted for dipole factor
- (2) Service population after reduction from terrain and interference losses, before consideration of proposal
- (3) Net change in population receiving interference resulting from proposal
A number in parenthesis indicates a decrease in interference
- (4) Proposal-s impact in terms of percentage, equals (3)/(1) times 100 percent: not to exceed zero when rounded to the nearest whole percent

¹ This evaluation compares the interference caused to KFTL-CA CPMoD by the instant proposal to the interference caused by the authorized BMPCDT-20000428AAT.

EXHIBIT 41 - FIGURE 3 DTV CONTOUR COVERAGE COMPARISON

prepared July 2004 for
**Lincoln Broadcasting Company,
A California Limited Partnership**
KTSF-DT San Francisco, California
Facility ID 37511
Ch. 27 500 kW 403.4 m

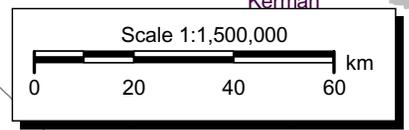
Cavell, Mertz & Davis, Inc.
Manassas, Virginia



Proposed KTSF-DT
41 dBu Contour

Authorized KTSF-DT(CP)
41 dBu Contour
(BMPCDT-20000428AAT)

Note: Directional Antenna Pattern is the same for both the authorized and proposed KTSF-DT facilities.



**EXHIBIT 41 - FIGURE 4
PROPOSED COVERAGE CONTOURS**

prepared July 2004 for
**Lincoln Broadcasting Company,
 A California Limited Partnership**
 KTSF-DT San Francisco, California
 Facility ID 37511
 Ch. 27 500 kW 403.4 m

Cavell, Mertz & Davis, Inc.
 Manassas, Virginia

