

**Station KQET-DT • Watsonville, California**  
**Engineering Analysis of Early Transition to DTV Channel 25**

**Statement of Hammett & Edison, Inc., Consulting Engineers**

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Northern California Public Broadcasting, Inc., licensee of noncommercial TV Station KQET, Watsonville, California, FCC Facility ID No. 8214, to study potential interference and contour conditions related to a proposed early transition to DTV facilities presently authorized for post-transition operation.

**Background**

TV Station KQET is currently licensed to operate on analog Channel 25 and pre-transition DTV Channel 58. KQET holds an FCC construction permit for post-transition DTV operation on Channel 25 (FCC File No. BPEDT-20080314ACH), operation of which would replace the present analog facility on that channel. On March 17, 2009, the KQET licensee filed an FCC Analog Service Termination Notification form, stating that analog service would end on May 9, 2009. The licensee intended to continue digital operation on Channel 58 until the June 12, 2009, transition date. However, due to scheduling issues with the DTV transmitter manufacturer, it was determined that the equipment must be converted for operation on DTV Channel 25 about four weeks earlier than the nationwide transition date, necessitating a request for early transition to post-transition operation.

**Proposed Conditions**

During the week of May 18, 2009, it is proposed to cease KQET-DT operation on Channel 58 and commence operation with the full authorized Channel 25 post-transition DTV facilities. The digital facility would operate as specified in the post-transition construction permit, with an ERP of 81.1 kilowatts and a radiation center of 984.4 meters above mean sea level and 698.6 meters above average terrain, using the authorized directional transmitting antenna. An OET-69 interference study has been conducted using the FCC tv\_process algorithm and pre-transition allocation database, yielding results demonstrating that no interference increase in excess of the permissible 0.5% would be caused to any other authorized operation.

The accompanying map figure compares the F(50,90) 42.5 dBu noise-limited Channel 58 pre-transition digital contour with the F(50,90) 39.8 dBu noise-limited Channel 25 post-transition digital contour. The post-transition digital contour covers 100.9% of pre-transition digital contour area and 101.8% of pre-transition digital contour population; while the two contour areas differ by a small amount, current digital service is effectively maintained.



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**Conclusion**

Based on the OET-69 interference and contour analysis study results, I conclude that KQET-DT may commence operation with its full DTV Channel 25 post-transition facilities without causing impermissible interference to any other authorized pre-transition facility, and also that the present digital service area and population would be effectively maintained.

**Figure**

In carrying out these engineering studies, the following attached figure was prepared under my direct supervision:

1. Comparison of pre-transition and post-transition digital contours.

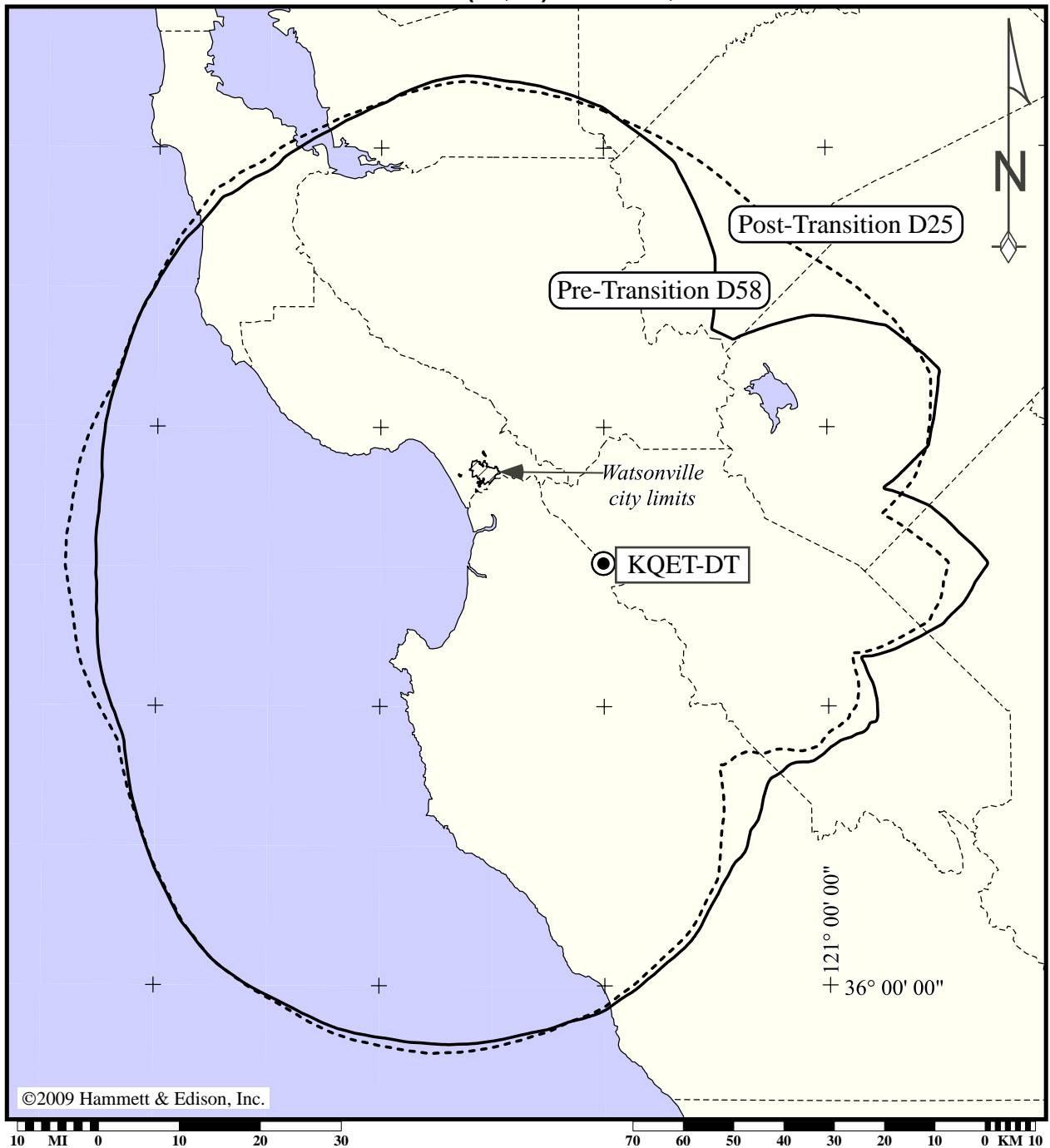
April 17, 2009



## Station KQET-DT • Watsonville, California

### Comparison of Pre-Transition and Post-Transition Digital Contours

Pre-Transition Channel 58: F(50,90) 42.5 dBu, BLEDT-20050121AAZ  
Post-Transition Channel 25: F(50,90) 39.8 dBu, BPEDT-20080314ACH



Lambert conformal conic map projection. Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 30-minute increments. City limits and county lines shown taken from U.S. Census Bureau TIGER/Line 2000 data.



**HAMMETT & EDISON, INC.**  
CONSULTING ENGINEERS  
SAN FRANCISCO

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Figure 1