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**AKIN, GUMP, STRAUSS, HAUER & FELD, L.L.P.**

ATTORNEYS AT LAW

A REGISTERED LIMITED LIABILITY PARTNERSHIP  
INCLUDING PROFESSIONAL CORPORATIONS

1333 NEW HAMPSHIRE AVENUE, N.W.

SUITE 400

WASHINGTON, D.C. 20036

(202) 887-4000

FAX (202) 887-4288

WRITER'S DIRECT DIAL NUMBER (202) 887-4377

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Federal Communications Commission  
Office of Secretary

June 13, 1997

**BY HAND DELIVERY**

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

Re: Petition for Reconsideration  
MM Docket No. 87-268

Dear Mr. Caton:

Enclosed for filing on behalf of Granite Broadcasting Corporation are an original and four (4) copies of a Petition for Reconsideration of the Fifth Report and Order and the Sixth Report and Order adopted by the Federal Communications Commission, in the above-referenced rulemaking proceeding. Please direct any questions concerning this matter to the undersigned.

Very truly yours,

*Margaret L. Tobey, P.C.*

Margaret L. Tobey, P.C.

Enclosures

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JUN 13 1997

Federal Communications Commission  
Office of Secretary

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

DOCKET FILE COPY ORIGINAL

In the Matter of

Advanced Television Systems  
and Their Impact Upon the  
Existing Television Broadcast  
Service

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MM Docket No. 87-268

To: The Commission

**PETITION OF GRANITE BROADCASTING CORPORATION  
FOR RECONSIDERATION OF THE FIFTH REPORT AND ORDER  
AND THE SIXTH REPORT AND ORDER**

Margaret L. Tobey, P.C.  
Paige S. Anderson, Esq.  
AKIN, GUMP, STRAUSS, HAUER &  
FELD, L.L.P.  
1333 New Hampshire Avenue, N.W.  
Suite 400  
Washington, D.C. 20036  
(202) 887-4000

Date: June 13, 1997

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## SUMMARY

Granite Broadcasting Corporation ("Granite"), directly and through its subsidiaries, owns and operates ten television stations. While most of Granite's stations have received DTV allocations that are reasonably comparable to other stations in its markets, two stations have received allotments which place them at a substantial unfair competitive disadvantage vis-a-vis other commercial network affiliates in the same market. The arbitrary imposition of this type of competitive disadvantage is contrary to the Federal Communications Commission's ("Commission") stated goals in these proceedings. To alleviate these disparities, Granite respectfully requests the Commission to reconsider several of its service rules related to channel swaps, treatment of channel assignments outside the "core spectrum," and several related issues.

In addition, Granite respectfully requests the Commission to reconsider its DTV allotment patterns, on a regional basis, for the San Francisco-Oakland-San Jose and Grand Rapids-Kalamazoo-Battle Creek markets. Due to the congestion in these markets, stations will find it difficult, if not impossible, to develop individual solutions to their allotment problems. Finally, Granite urges the Commission to give licensees 90 days after the release of OET Bulletin No. 69 in which to craft appropriate solutions to the technical problems presented by the Commission's new service rules. Providing this additional time is advisable given the complex nature of the Commission's algorithm for developing new DTV assignments and the fact that licensees were not afforded an opportunity to review the technical methodology outlined in OET Bulletin No. 69 prior to the filing deadline for petitions for reconsideration.

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of )  
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 )  
Advanced Television Systems )  
and Their Impact Upon the ) MM Docket No. 87-268  
Existing Television Broadcast )  
Service )

To: The Commission

**PETITION FOR RECONSIDERATION OF  
THE FIFTH REPORT AND ORDER  
AND THE SIXTH REPORT AND ORDER**

**I. INTRODUCTION**

Granite Broadcasting Corporation and its wholly owned broadcasting subsidiaries ("Granite"),<sup>1</sup> by their attorneys, hereby submit this Petition for Reconsideration in response to the Fifth Report and Order and Sixth Report and Order adopted by the Federal Communications Commission's ("FCC" or "Commission") in the above-captioned rulemaking proceeding.<sup>2</sup> The Fifth and Sixth Reports and Orders adopt rules which will implement digital television ("DTV") service in the United States. These rules are designed to ensure that this new, technologically advanced form of television service functions

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<sup>1</sup> Since its founding in 1988, Granite Broadcasting Corporation has become the largest minority-controlled television group owner in the U.S. Directly and through subsidiaries, it owns and operates the following ten television stations: KNTV(TV), San Jose, California; WTVH-TV, Syracuse, New York; KSEE(TV), Fresno, California; WPTA(TV), Fort Wayne, Indiana; WEEK-TV, Peoria, Illinois; KBJR-TV, Duluth, Minnesota; KEYE, Austin, Texas; WWMT, Kalamazoo, Michigan; WKBW, Buffalo, New York, and WXON-TV, Detroit, Michigan.

<sup>2</sup> Advanced Television Systems and Their Impact Upon The Existing Television Broadcast Service, Fifth Report & Order, MM Docket No. 87-268, FCC 97-115 (released April 21, 1997) ("Fifth Report & Order"); and Advanced Television Systems and Their Impact Upon The Existing Television Broadcasting Service, Sixth Report & Order, MM Docket No. 87-268, FCC 97-115 (released April 21, 1997) ("Sixth Report & Order").

efficiently and effectively and is widely available to the American public. Crafting these initial rules was a massive project that required the substantial and dedicated efforts of many people, both within and outside the Commission, over many years. Granite recognizes and appreciates both the enormity and the complexity of the task. To the Commission's credit, the rules largely accomplish its stated goals. There are, however, several areas where changes can and should be made to ensure that implementation of the DTV rules produces viable stations which can continue to provide over-the-air television service to the public. In furtherance of this goal, Granite respectfully requests limited adjustments to the Commission's service rules and allocation table. Adoption of the requested changes at this early stage will help avoid future logistical and technical problems in the DTV service.

**II. THE COMMISSION MUST RECONSIDER SEVERAL OF ITS RULES TO PERMIT MAXIMIZATION OF STATION POWER AND ACTUAL REPLICATION OF CURRENT TELEVISION SERVICE AREAS**

**A. The Commission's Allotment Table Overestimates the Service Replication and Maximum Power for Some Television Stations**

In the Sixth Report & Order, the Commission decided to allot DTV channels using a "service replication/maximization" concept which was designed to "allow all existing broadcasters to provide DTV service to a geographic area that is comparable to their existing NTSC service area."<sup>3</sup> This strategy was designed to ensure both that broadcasters can reach the audiences they now serve and that viewers have continued access to the stations that they now receive over-the-air.<sup>4</sup> Unfortunately, despite these intentions, the DTV Table of Allotments adopted by the Commission does not achieve its stated goals for some stations.

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<sup>3</sup> Sixth Report & Order at ¶ 12.

<sup>4</sup> Id. at ¶ 29.

## **1. Station KNTV, San Jose, California**

For example, Station KNTV currently operates on channel 11 in San Jose, California. The station has received a DTV allotment on channel 12 and is permitted to maximize its power at 6 kW. The Commission has calculated that the service area ratio of the station's DTV to NTSC coverage will be 99.9%.<sup>5</sup> At first glance, this DTV assignment looks quite promising. Unfortunately, however, Granite's analysis of the station's predicted DTV coverage area is not as optimistic as the FCC's, and operation under the conditions proposed in the Table of Allotments could in fact result in a significant loss of service to the public. If not corrected on reconsideration, reduced service will result for several reasons.

First, the Commission's DTV allotment table assigns DTV channel 13 to Station KCBA, in nearby Salinas, California, at a distance of 49.8 kilometers, which is both further (by 9.6 kilometers) than the 40.2 kilometer maximum distance and shorter (by 47.1 kilometers) than the alternate 96.6 kilometer minimum distance specified in new §73.623(d)(1) of the Commission's rules.<sup>6</sup> Accordingly, the spacing between the KNTV and KCBA DTV assignments does not meet the Commission's own standards and, as shown in Figure 1 of Exhibit A, the two stations are actually located within each other's DTV coverage contours. Thus, due to this inadequate spacing assigned by the Commission, both stations are precluded from improving their assigned replication power and pattern either by increasing power or by using an omnidirectional antenna.

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<sup>5</sup> Id. at Appendix B-11.

<sup>6</sup> See Engineering Statement of Hammett & Edison, Inc. attached hereto as Exhibit A.

Second, it appears that Station KNTV will be unable to operate omnidirectionally at the 6 kW power level that the FCC has assigned to it.<sup>7</sup> The Commission's DTV replication contour for Station KNTV is included in Exhibit A as Figure 2. This replication contour anticipates that KNTV will use a directional antenna pattern for its DTV operations despite its present use of an omnidirectional antenna.<sup>8</sup> While an antenna manufacturer could likely fill the directional pattern to at least 85%, based on total power, it is likely that KNTV will not be able to realize the full coverage assumed by the FCC for purposes of establishing service replication. Accordingly, this DTV allocation would result in a substantial loss of service and would place Station KNTV at an unfair competitive disadvantage vis-a-vis other commercial network affiliates in the market.

Third, the Commission's allotment program treats internal error codes returned by the Longley-Rice propagation loss prediction algorithm in a faulty manner. Specifically, the study cells for which such errors were reported (which indicates that Longley-Rice was not able to calculate a reliable signal strength for the terrain profile for that study cell) were arbitrarily assumed to have interference-free service.<sup>9</sup> This assumption leads to inflated estimates for the area and population served by the station since some or all of those study cells may not, in fact, have the adequate desired signal. Furthermore, all undesired signals

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<sup>7</sup> See Exhibit A. The Commission has not yet released OET Bulletin No. 69 which sets forth the methodology for calculating service areas and interference under the new DTV rules. However, by examining FCC software source codes, Hammett & Edison has developed a computer program which can analyze: (1) individual DTV station assignments with regard to their potential interference to other stations; (2) DTV allotments; (3) existing or authorized NTSC facilities; and (4) several other features. A more detailed description of the analysis software program developed by Hammett & Edison is contained in Figure 4 of Exhibit A.

<sup>8</sup> Id.

<sup>9</sup> Id.

may not be below the necessary desired-to-undesired signal ratio for interference-free reception. As a result, the replication of service claimed for Station KNTV will not be achieved in practice.

Fourth, careful scrutiny of the computer program the Commission used to replicate the service of the existing NTSC station reveals that, among other simplifying assumptions, the FCC assumed that the consumer antennas used for reception of the DTV signals would perform better than those used for reception of the NTSC signals, despite the fact that both operations are on the same general frequencies and that consumers may not be inclined to replace their existing antennas or to install second, larger antennas just for DTV service.<sup>10</sup> Therefore, for this additional reason, replication of service may not be achieved as expected.

## 2. Station WWMT, Kalamazoo, Michigan

Station WWMT, Kalamazoo, Michigan, also faces service problems resulting from faulty FCC assumptions. The Commission's DTV replication protocols have assumed that DTV service on channel 2 would be equivalent, out to a field strength of only 28.0 dBu, to DTV service at higher signal levels on other channels. It is respectfully suggested that such an assumption is not warranted, particularly for channel 2, since the Commission has questioned the basic suitability of this channel due to its susceptibility to interference. This interference comes from both natural sources, such as atmospheric noise, as well as from man-made sources, such as ignition noise. Other phenomena, such as tropospheric ducting

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<sup>10</sup> See Exhibit A at 2. Moreover, the FCC assumes for purposes of replication that the receiving antenna is oriented toward the transmitting antenna, which may not be the case in practice. *Id.* at 4A. For example, in a market where the television towers are clustered in two or more locations, antenna orientation could be a significant determinate of whether a station can achieve the replication predicted by the FCC.

along Lake Michigan, can provide additional sources of interfering signals. This is especially true during the summer months. As a result, the assignment of DTV channel 2 to WWMT subjects that station to signal variations and cause the Commission's service replication claims to be inflated.<sup>11</sup> These results are unfair to Station WWMT since the Commission's rules are designed to ensure that "all stations are able to provide DTV service competitively within their respective markets."<sup>12</sup>

**B. The Commission Must Review Several Aspects of its Rules on Reconsideration to Achieve its "Service Replication/Maximization" Goal**

**1. The Rules Should Encourage Individual Remedies to Allotment Problems by Removing Technical and Procedural Impediments to Consensual DTV Channel Swaps Between Television Stations**

Television stations face a myriad of technical and logistical difficulties which must be overcome to effectively implement DTV service as currently envisioned by the Commission. To further complicate this challenge, the Fifth Report & Order establishes a tight time schedule within which television broadcasters are to begin broadcasting on their DTV channels. The Commission's rules therefore must facilitate broadcaster efforts to comply with its build out requirements and it does so in some circumstances. For example, Section 73.623(f) of the new rules permits DTV stations to operate with increased ERP and/or antenna HAAT that would result in additional interference to an analog TV station as long as the affected station agrees, in writing, to accept the additional interference. The Commission's rules should similarly facilitate consensual agreements for both intra-community and inter-market channel swaps between individual stations.

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<sup>11</sup> Exhibit A at 2.

<sup>12</sup> Sixth Report & Order at ¶ 29.

Section 73.622(c) of the Commission's rules (as released in the Fifth Report & Order) exempts channel swaps between stations within the same community from the Commission's petition for rulemaking process. Such swaps can be made upon application to the Commission. By contrast, inter-market exchanges which would change the channel allotments among communities can be achieved only by filing a petition for rulemaking to amend the allotment table. Granite requests that the Commission permit inter-market swaps also to proceed upon application rather than after the lengthy procedural process associated with filing a petition for rulemaking to amend the Table of Allotments. If necessary, the Commission can use industry coordination committees to facilitate and coordinate these swaps on a regional basis.<sup>13</sup> This rule change would facilitate the efficient resolution of technical problems facing stations by equalizing the treatment of inter-market and intra-community swaps and eliminating unduly burdensome and time-consuming procedural requirements.

**2. The Commission Should Reevaluate the Regional Allotments Made to Certain Congested Areas**

Individual solutions, such as channel swaps, should be encouraged. However, these individual solutions may not be possible or feasible in all circumstances. For example, the San Francisco-Oakland-San Jose and the Grand Rapids-Kalamazoo-Battle Creek markets are highly congested. Power limits and interference difficulties cannot always be remedied in these markets simply by moving the station to an alternative DTV channel since an alternative channel may not be available. In addition, it is likely that other stations in these

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<sup>13</sup> In ¶ 182 of the Sixth Report & Order, the Commission "encourage[d] the industry to continue their current voluntary coordination efforts." These committees could be used to coordinate multiple channel swap proposals.

markets face similar allotment problems.<sup>14</sup> Since alleviating allotment problems in these markets will frequently require action to be coordinated among several stations, these situations can be rectified most efficiently and a loss of service can be avoided for multiple stations if the Commission re-evaluates these affected allotments on a regional basis. Granite respectfully requests such a reevaluation of the San Francisco-Oakland-San Jose and Grand Rapids-Kalamazoo-Battle Creek-DTV markets.

### **III. THE COMMISSION'S RULES MUST REMOVE CERTAIN INEQUITIES IMPOSED ON BROADCAST STATIONS ASSIGNED TO DTV CHANNELS OUTSIDE THE CORE SPECTRUM**

In the Sixth Report & Order, the Commission concluded that channels 7 - 51 are the most suitable frequencies for DTV service. Although television operations on the lower VHF channels 2 - 6 are subject to a number of technical difficulties including higher ambient noise levels due to leaky power lines, vehicle ignition systems, and other impulse noise sources, and interference to and from FM radio service,<sup>15</sup> the Commission adopted a DTV Table of Allotments which currently includes those lower VHF channels. If channels 2 - 6 prove acceptable for DTV use, then the Commission may retain the use of these channels and adjust the core spectrum to encompass channels 2 - 46 rather than channels 7 - 51. If technical problems prove to be too great, then stations on these lower VHF channels will be

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<sup>14</sup> In fact, since the Commission has not yet released Office of Engineering and Technology Bulletin No. 69 ("OET Bulletin No. 69"), which describes the proper procedures to be used to calculate station service areas and interference, many stations may be unaware of individual problems in the Table of Allotments until after the June 13th filing date. See Section IV.

<sup>15</sup> Sixth Report & Order at ¶ 82.

required to abandon this spectrum after the transition period and make a second move to a channel within the Commission's core spectrum.

The Commission's uncertain future classification of this spectrum creates several problems for licensees who have received channel assignments in this spectrum. Granite therefore urges the Commission to take several steps to reduce the burdens imposed on stations who received DTV channel assignments in channels 2 - 6.<sup>16</sup> First, the Commission should take action to eliminate interference on this spectrum to the extent possible. For example, some sources of potential noise, such as power line leakage and other man-made noise could be reduced or eliminated. The elimination of this interference may improve the suitability of these channels and reduce the need to relocate stations from these channels at a later date. In addition, the Commission should not decide whether to include channels 2 - 6 in the core spectrum until it has actual data and feedback from broadcasters who have operated DTV services in this spectrum. Second, if real world problems do exist on these channels and stations are forced to relocate, equity requires that the stations receive compensation for the relocation costs. All stations are required to bear the financial burden of changing facilities once. However, it is unfair to impose an additional financial cost on stations that are involuntarily required to make a second move.<sup>17</sup> Failure to reimburse these stations will impose an enormous financial and logistical handicap and will indirectly benefit market competitors. Such a requirement would

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<sup>16</sup> For example, Granite's Station WWMT, Kalamazoo, Michigan, has been assigned to DTV channel 2.

<sup>17</sup> The Commission will permit broadcasters to switch their DTV service to their existing NTSC channel at the end of the transition period provided the station's existing channel is within the final DTV core spectrum. This second relocation would be a voluntary choice by the broadcaster and therefore differs from the forced relocation that channel 2 - 6 stations may face.

disproportionately harm small and independently owned stations and could further reduce diversity in ownership.

Furthermore, the Commission has announced its intention to examine whether new service providers should be required to compensate full service or low power operations that are displaced or relocated from channels 60 - 69.<sup>18</sup> It would be inequitable to compensate the relocation of licensees in these channels without reimbursing the forced relocation of licensees on channels 2 - 6. Stations assigned to spectrum above channel 51 face a similar dilemma since their DTV assignment may ultimately be determined to be outside the "core spectrum." Accordingly, Granite requests the Commission, on reconsideration, to require the compensation of relocation costs for all stations that are forced into second channel moves (i.e., channels 2 - 6 as well as channels above 51). Funding for this reimbursement could come from new users or auction proceeds from the sale of spectrum recaptured after the DTV transition.

**IV. PARTIES NEED ADDITIONAL TIME TO ANALYZE AND REQUEST SOLUTIONS TO THE TECHNICAL PROBLEMS PRESENTED BY THE RULES SINCE STATIONS CURRENTLY LACK ACCESS TO THE METHODOLOGY USED BY THE FCC TO CALCULATE INTERFERENCE LEVELS**

Stations have been instructed to use the methodology described in OET Bulletin No. 69 to calculate interference levels between television stations.<sup>19</sup> However, since this bulletin has not yet been released, television stations lack access to the methodology needed to perform this interference analysis and have been hampered in conducting the massive amount of planning and analysis required to thoroughly evaluate the DTV allotment accorded

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<sup>18</sup> Sixth Report & Order at ¶ 80.

<sup>19</sup> See, e.g., new rule § 74.703(a) as contained in the Sixth Report & Order.

to each television station. As a result, Granite joins Maximum Service Television in requesting an additional 90 days after the release of OET Bulletin No. 69 in which to craft appropriate solutions to the technical problems presented by the Commission's service rules and allocation table. Accordingly, Granite requests that the Commission treat the DTV assignments as provisional pending the submission and consideration of additional analysis following the release of OET Bulletin No. 69.

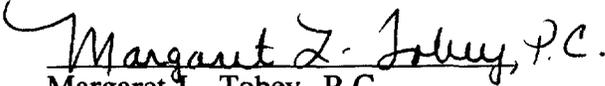
## **V. CONCLUSION**

For the reasons set forth in this Petition for Reconsideration, Granite respectfully requests that the Commission reconsider the manner in which its DTV rules treat voluntary inter-market channel swaps and channel assignments outside the "core spectrum." The Commission should also reconsider the DTV regional allotment schemes in the San Francisco-San Jose, and Grand Rapids-Kalamazoo-Battle Creek markets, as well as several

significant technical inaccuracies and problems associated with the DTV service replication and maximum power assignments for television stations. Finally, licensees should be given 90 days after the release of OET Bulletin No. 69 so that they can properly evaluate each station's DTV allotment and make the necessary technical recommendations to resolve additional allotment problems.

Respectfully submitted,

GRANITE BROADCASTING CORPORATION

By:   
Margaret L. Tobey, P.C.  
Paige S. Anderson, Esq.  
Its Attorneys

AKIN, GUMP, STRAUSS, HAUER &  
FELD, L.L.P.  
1333 New Hampshire Avenue, N.W.  
Suite 400  
Washington, D.C. 20036  
(202) 887-4000

Date: June 13, 1997

**EXHIBIT A**

**Granite Broadcasting Corporation  
New York, New York**

**Engineering Exhibit  
in Support of Petition  
for Reconsideration**

June 12, 1997

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# Granite Broadcasting Corporation • New York, New York

## Statement of William F. Hammett, Consulting Engineer

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Granite Broadcasting Corporation to review the Fifth and Sixth Report and Orders in Mass Media Bureau Docket No. 87-268, concerning digital television channel allocations, and to prepare this engineering statement in support of a petition for reconsideration.

### Background

Granite Broadcasting Corporation is the licensee of 10 TV stations in various markets across the U.S. In all but two of its markets, Granite has received DTV allocations that are reasonably comparable with other stations in those markets and do not place the Granite stations at competitive disadvantages that do not now exist. In two markets, however, Granite has received VHF allotments that place Granite at an unfair competitive disadvantage *vis à vis* other commercial network affiliates in the same market, and Granite hereby petitions for reconsideration of the DTV allotment scheme in those isolated instances:

<u>Market</u>	<u>Granite NTSC Station</u>	<u>DTV Allotment</u>
San Francisco-San Jose, CA	KNTV, Channel N11	Channel D12 at 6.0 kW maximum
Grand Rapids-Kalamazoo, MI	WWMT, Channel N03	Channel D02 at 6.9 kW maximum

### KNTV, Channels N11/D12, San Jose, CA

The FCC's DTV allotment table includes DTV Channel 13 assigned to KCBA, in nearby Salinas, California, at a distance of 49.8 kilometers, which is both further by 9.6 kilometers than the 40.2-kilometer *maximum* distance and shorter by 47.1 kilometers than the alternate 96.9-kilometer *minimum* distance specified in new §73.623(d)(1) of the FCC Rules. The spacing between the KNTV and KCBA DTV assignments does not meet the FCC's own standards and, as shown in Figure 1, the two stations are actually located *within* each other's DTV coverage contour. Thus, due to this inadequate spacing assigned by the FCC, both stations are precluded from improving their assigned replication power and pattern, whether by a power increase or even by use of an omnidirectional antenna.

The FCC's DTV replication pattern for KNTV is included as Figure 2, and it was a surprise to KNTV to learn that, despite its present use of an omnidirectional antenna, the FCC had derived a hypothetical directional pattern that it would have to use for achieving the full service replication claimed by the FCC, with omnidirectional power of only 3.6 kW being allowed. While an antenna manufacturer could likely fill the directional pattern to at least 85%, based on total power, it is noted simply that KNTV cannot realize the full coverage assumed by the FCC for the purposes of establishing service replication.



## Granite Broadcasting Corporation • New York, New York

### WWMT, Channels N03/D02, Kalamazoo, MI

The FCC's DTV replication protocols have assumed that DTV service on Channel 2 would be equivalent, out to a field strength of only 28.0 dBu, to DTV service at higher signal levels on other channels. It is respectfully suggested that such an assumption is not warranted, particularly at Channel 2, whose basic suitability is questioned by the FCC\* because of susceptibility to interference. This interference comes both from natural sources, *e.g.*, atmospheric noise, and from man-made sources, *e.g.*, ignition noise. Other phenomena, such as tropospheric ducting along Lake Michigan, can provide additional sources of interfering signals; this is especially true during the summer months. As a result, the assignment of DTV Channel 2 to WWMT subjects that station to signal variations and losses that 1) do not apply so much to its competitors, 2) cause the FCC's service replication claims to be inflated, and 3) therefore are unfair to WWMT.

### General Comments

Granite respects the daunting nature of the task undertaken by the FCC to accommodate an immediate doubling of the number of TV allotments within the VHF and UHF TV bands, much less some subset of those bands. Careful scrutiny of the computer program used by the FCC to replicate the service of the existing NTSC stations reveals that, among other simplifying assumptions, the FCC assumed that the consumer antennas used for reception of the DTV signals would be better-performing than the ones used for reception of the NTSC signals, despite the fact that both operations are on the same general frequencies and that no one, in fact, was proposing that consumers would be at all inclined to replace their existing antennas or to install second, larger antennas just for DTV. Clearly, these alternate patterns, included as Figure 3 to illustrate the improved rejection off-axis (by 4 dB at low-band VHF and 6 dB at high-band VHF), proved necessary in order to achieve the desired replication numbers. However, such antennas do not necessarily exist nor would they necessarily be purchased and installed by consumers viewing the DTV stations off-air. In fact, a more reasonable assumption is that they will *not*, particularly when considering the size of the antenna necessary at Channel 2 to realize such performance. Therefore, the replication of service claimed for the two Granite stations will not, in practice, be achieved and the two stations will, for this additional reason, be at a competitive disadvantage.

It was also noted during a review of the FCC software that the allotment program handled in an odd manner internal error codes returned by the Longley-Rice<sup>†</sup> propagation loss prediction algorithm, namely, that study cells for which such errors were reported, indicating that Longley-Rice was not able to calculate a reliable signal strength for the terrain profile to that study cell,

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\* Paragraph 83 of the Sixth Report and Order

† Version 1.2.2, as required by new §73.623(c)(2) of the FCC Rules.



## Granite Broadcasting Corporation • New York, New York

were arbitrarily assumed to have interference-free service! This assumption, of course, leads to inflated figures for area and population served, since some or all of those study cells may not, in fact, have adequate desired signal there, much less have all undesired signals happen also to be below the necessary desired-to-undesired signal ratio for interference-free reception. Therefore, the replication of service claimed for the two Granite stations will not, in practice, be achieved and the two stations will, for this further reason, be at a competitive disadvantage under the DTV allotment scheme as presently configured in those two markets.

### Recommendation

For all the reasons set forth above, Granite Broadcasting Corporation hereby requests reconsideration by the FCC of its DTV allotment schemes in San Francisco-San Jose, California, and Grand Rapids-Kalamazoo, Michigan. Due to the complex nature of the FCC's algorithm for developing new DTV assignments, and especially since the FCC publication OET Bulletin No. 69 has not as of this date been published, there has been insufficient time for Granite to analyze the DTV assignments in those two markets plus neighboring markets affecting and affected by the proposed DTV operations of TV Stations KNTV and WWMT in order to develop alternate recommendations for consideration by the FCC. Granite intends to commission such work at the earliest opportunity after publication of OET-69.

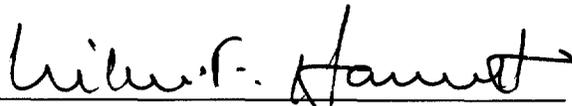
### List of Figures

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

1. Map showing locations of KNTV and nearby TV Station KCBA
2. Plot of directional antenna patterns for TV Station KNTV
3. Plot of different receive antenna patterns assumed by FCC
4. Statement of methodology for DTV.IXSTUDY™ program.

June 12, 1997



  
William F. Hammett, P.E.



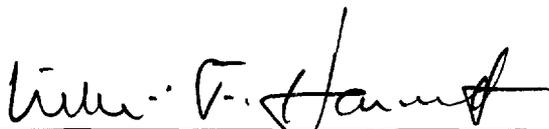
## Affidavit

State of California  
County of Sonoma

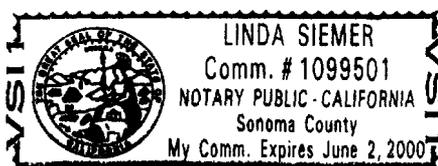
ss:

William F. Hammett, being first duly sworn upon oath, deposes and says:

1. That he is a qualified Registered Professional Engineer, holds California Registrations Nos. E-13026 and M-20676, which expire on June 30, 2001, and is a principal in the firm of Hammett & Edison, Inc., Consulting Engineers, with offices located near the city of San Francisco, California,
2. That he graduated from Dartmouth College with a degree in Engineering Sciences in 1977 and from the University of Illinois with a degree of Master of Science in 1978, has completed two years of employment by the Standard Oil Company and five years by Dean Witter Reynolds in various engineering, computer, and management capacities, and has been associated with the firm of Hammett & Edison, Inc., since 1985,
3. That the firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Granite Broadcasting Corporation to review the Fifth and Sixth Report and Orders in Mass Media Bureau Docket No. 87-268, concerning digital television channel allocations, and to prepare this engineering statement in support of a petition for reconsideration,
4. That such engineering work has been carried out by him or under his direction and that the results thereof are attached hereto and form a part of this affidavit, and
5. That the foregoing statement and the report regarding the aforementioned engineering work are true and correct of his own knowledge except such statements made therein on information and belief and, as to such statements, he believes them to be true.

  
William F. Hammett, P.E.

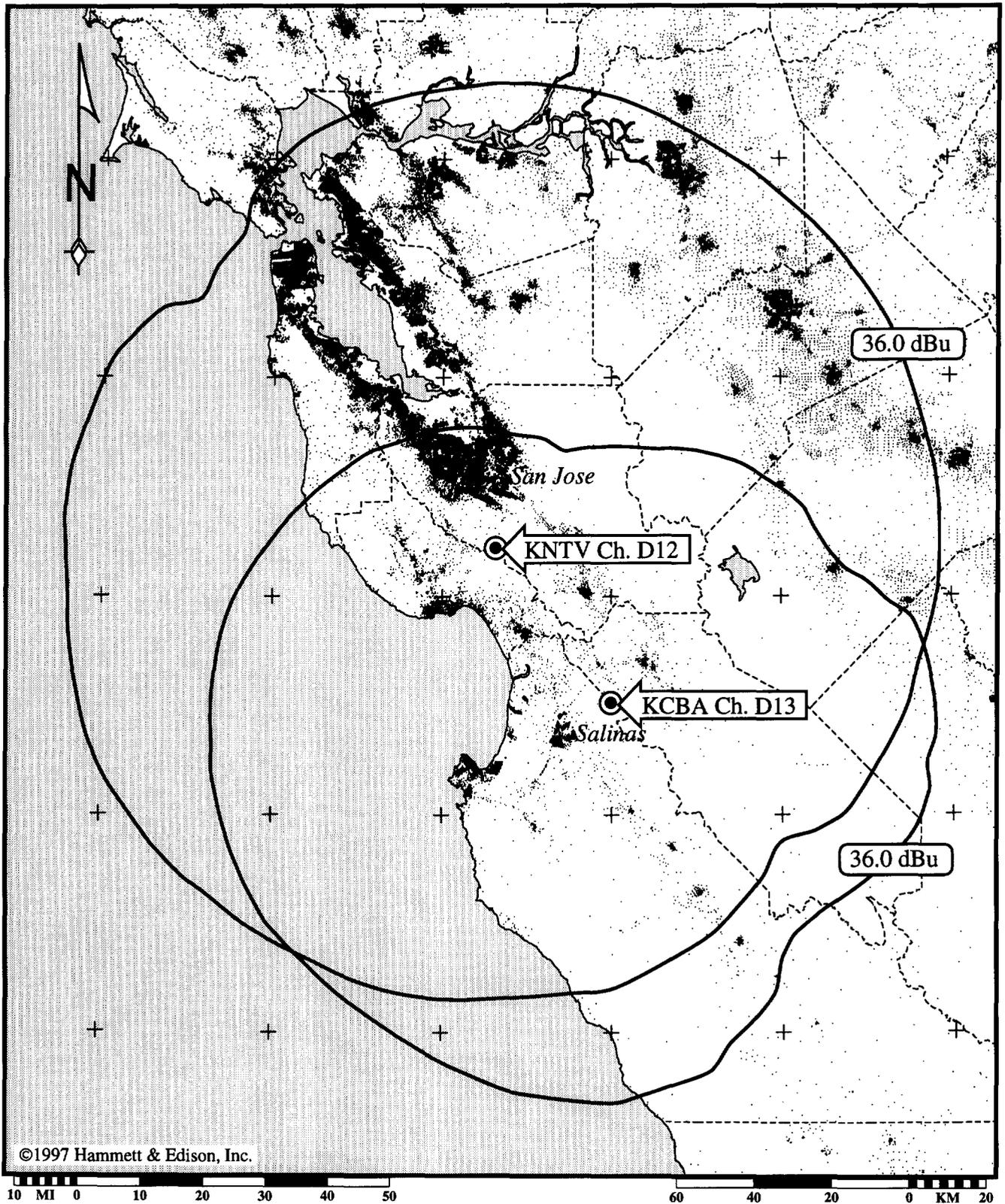
Subscribed and sworn to before me this 12th day of June, 1997





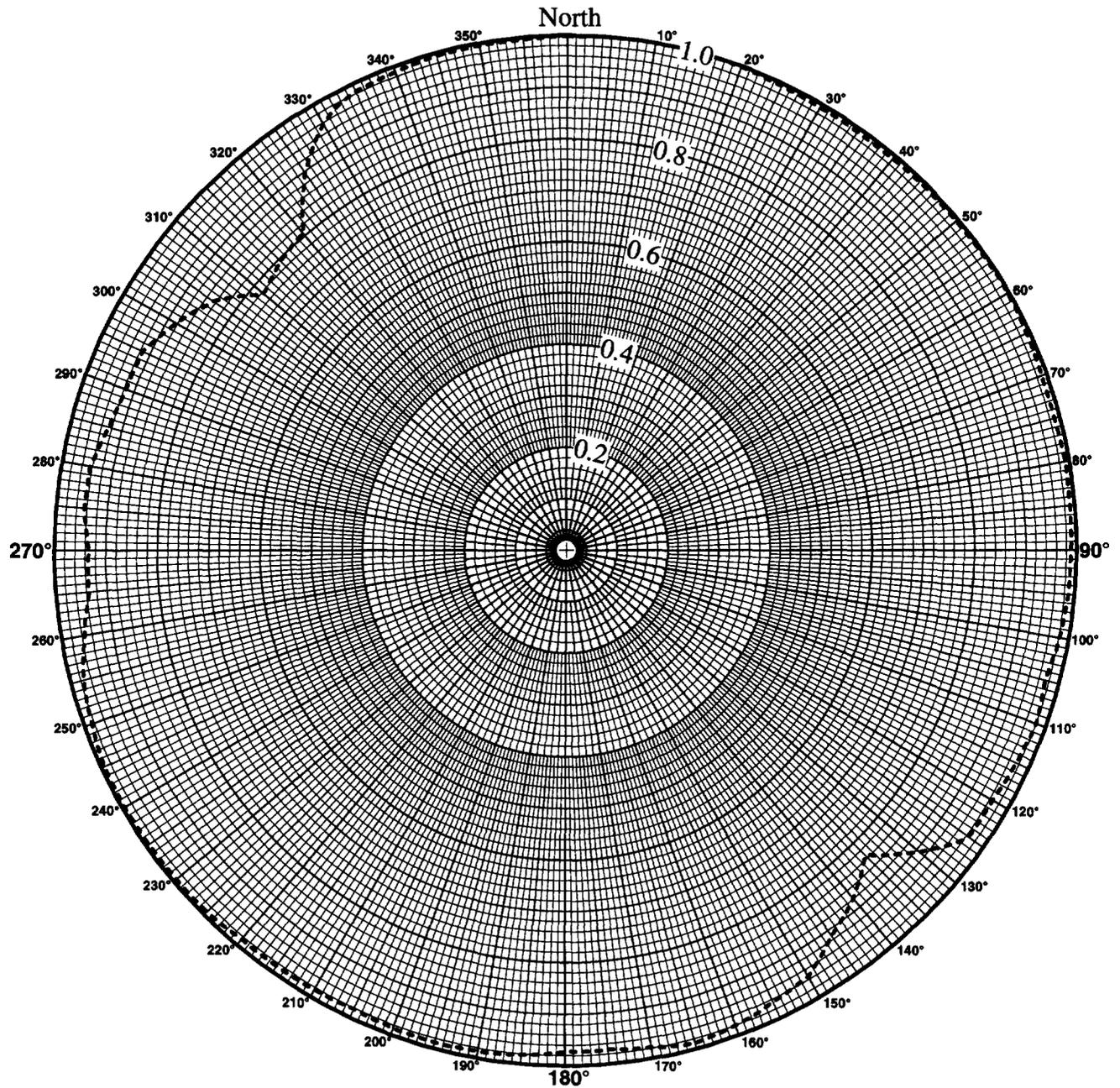
Granite Broadcasting Corporation • New York, New York

Calculated FCC Terrain-Weighted Service Contours  
for Adjacent-Channel DTV Stations KNTV, San Jose, and KCBA, Salinas



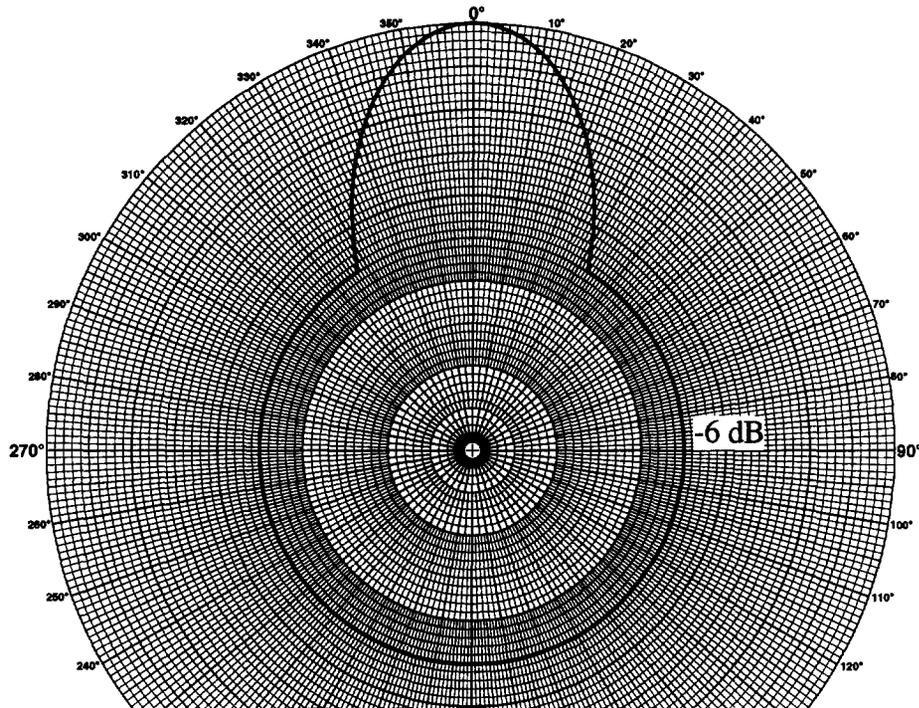
Granite Broadcasting Corporation • New York, New York

Directional "Replication" Antenna Pattern  
for DTV Station KNTV, Channel D12, San Jose, California  
Derived by FCC Program and Assumed by FCC for Service Projection

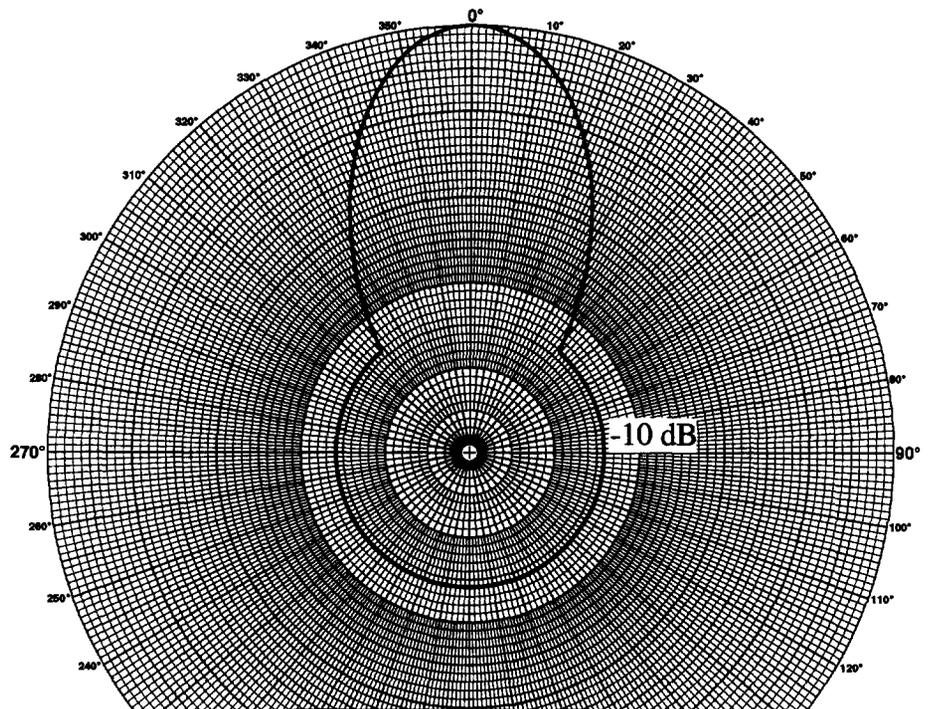


Granite Broadcasting Corporation • New York, New York

Different Consumer Receive Antenna Patterns, as Assumed  
by FCC "Replication" Program to Develop DTV Allotments  
- Low-Band VHF -



**NTSC Receive Antenna**



**DTV Receive Antenna**