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Federal Communications Commission
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of:)
)
Advanced Television Systems)
and Their Impact Upon the)
Existing Television Broadcast)
Service)

MM docket No. 87-268

**Comments of the
Association of Local Television Stations, Inc.**

The Association of Local Television Stations, Inc. (ALTV) hereby files the following comments in response to the *Public Notice* dated December 2, 1997, issued by the Chief of the Office of Engineering and Technology. ALTV has been an active participant throughout the DTV process. As a leading trade association representing hundreds of local television stations, we have sought to advance policies that promote the timely and orderly transition to digital television. Our objective is to move the process forward and avoid unnecessary delay.

The Office of Engineering and Technology (OET) solicits comment on 1) proposed revisions to the Table of Allotments submitted by the Association for Maximum Service Television (MSTV) and 2) the UHF Power proposal submitted by ALTV.

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I. MSTV Proposed Changes to the Table of Allotments: ALTV Neutrality

Creating a Table of Allotments is a complex and difficult task. As in any trade association, different members view issues in different ways. A number of our members oppose MSTV's proposed changes, while some support them. As a result, ALTV's member stations will be filing their own individual comments with the Commission. As an organization, we shall remain neutral.

II. UHF Power

A. A Solution Must Be Found: The Entire Digital Transition is at Stake

There is no doubt that a severe UHF/UHF DTV power problem exists in the current FCC DTV table¹. This problem was *not* addressed by the most recent MSTV table. In numerous markets, UHF stations have been assigned power levels that threaten their very existence in the digital world. While the FCC's *Sixth Report and Order* attempted to rectify this problem by creating a minimum floor of 50 kilowatts, that effort will not ameliorate the problem. In fact, members of Congress have urged the FCC to resolve the UHF/UHF DTV power problem.²

¹For the purposes of this pleading ALTV will refer to two types of DTV stations. VHF analog stations that have been given UHF DTV assignments will be referred to as VHF/UHF DTV stations. UHF analog stations that have been given a UHF DTV assignment will be referred to as UHF/UHF DTV stations. VHF/UHF DTV stations have been generally assigned more power because the FCC is trying to replicate the coverage of a VHF analog station in the UHF band.

²*See, e.g.*, Letter to the Honorable William Kennard, Chairman FCC from Honorable John McCain and the Honorable Conrad Burns, November 3, 1997.

The problem stems from trying to replicate Grade B VHF coverage in the UHF band. ALTV does not quarrel with the basic concept of replication. Indeed, it is a worthy objective. Nonetheless, the FCC must look at a variety of elements in determining whether the replication objective has been truly met.

By now, the Commission is cognizant of the fact that attempting to replicate Grade B VHF coverage areas in the UHF band requires enormous amounts of power. Indeed, in the analog world UHF stations were legally authorized to operate at power levels much higher than VHF stations (up to 5 megawatts of power) in order to compensate for the less desirable propagation characteristics in the UHF Band.³

In attempting to replicate VHF Grade B coverage in the UHF band, many VHF/UHF stations have been granted *fifteen to twenty times the power* of other UHF/UHF stations in the market. This is a dramatic change from the existing analog world. No such legal disparity exists among existing analog stations in the UHF band. The power disparities that do exist are interband (VHF vs. UHF). These disparities were designed to help UHF stations gain coverage

³See 47 CFR § 73.614 (1997). Low powered VHF stations were granted 100 KW maximum power, high power VHF 316 KW maximum power and UHF stations were given 5000 Kw maximum power. It is worth noting that the higher powers assigned in the UHF band was an attempt to give UHF stations the legal opportunity to compete with VHF stations. Obviously, many UHF stations did not operate at 5000 kilowatts because of the astronomical expenses involved. Nonetheless, they had the opportunity to increase power if they so desired. In many respects, that is all UHF/UHF DTV stations are requesting in the instant proceeding. They desire an opportunity to compete in a fashion similar to that which existed in the analog world.

areas equal to VHF stations, provided they were willing to bear the increased operational costs and power expenses.

The key point is that UHF/UHF- DTV stations are concerned that they lack enough power to provide quality service within their Grade A service areas. This is especially true with respect to reception via indoor antennas. Rather than replicate the existing analog environment, these stations will be worse off in the digital world.

It has become increasingly apparent that low power assignments, such as 50 kilowatts, will not be sufficient to provide reception for receivers using an indoor antenna. This is true even for those receivers located within a station's Grade A contour. The lack of off-air reception is a critical issue for the Commission. Many second and third television sets in households today are not connected to cable, and there is no reason to believe this will change in the DTV world. Off-air viewing will remain a significant revenue source for local television stations in the digital world. Unfortunately, the "cliff effect" associated with digital transmission may exacerbate the problem. Reception problems may no longer be fixed by moving the antenna around. It is not a question of getting "bad" reception, but rather no reception at all. The issue is "blank" television screens.

In short, the FCC must do *something* to help resolve the UHF power problem. Doing nothing may lead to a consumer revolt. The return lines at Circuit City and Sears will be enormous if many UHF stations cannot be seen in the digital world. In many markets this could mean the Fox, WB, UPN and PAX networks could not be viewed off-air. Because a significant

number of *local* sporting events such as baseball, football, basketball and hockey are broadcast on UHF facilities, access to these events over-the-air could also be jeopardized.

Finally, if UHF/UHF DTV reception becomes limited, the only way to watch these stations will be over some form of pay system, such as cable. This will have tremendous implications for the FCC time honored policy of promoting universal, free service in broadcasting. It will lead to a further separation between the "information haves and have nots."

Simply stated, this is a fight for the survival of existing UHF analog stations as they transition to the digital world. For forty years the FCC has promoted broadcast competition by developing local television stations in the UHF band.⁴ No one seriously disputes the benefits of this policy. It has increased competition and led to the development of at least four new general audience networks (Fox, UPN, WB, PAX) as well as specialty networks (Univision, Telemundo and HSN). It would be tragic if these efforts were wasted because of inadequate power. UHF stations are not seeking to gain advantage over their VHF competitors. They are merely asking for sufficient power to be given the opportunity to compete in the new digital era.

B. Rapid DTV Deployment Is Imperative

ALTV does not wish to delay DTV implementation. To the contrary, it is in the best interest of our members to implement DTV in a timely fashion. ALTV is not asking the FCC to

⁴See generally, Television Network: Entry, Jurisdiction Ownership and Regulation, Vol I, Network Inquiry Staff, FCC, 1980 at 69 - 93.

start over. To this end ALTV has not sought to resolve the UHF power problem by proposing to rearrange channel assignments. We understand the difficulties in creating a table of allotments. In this regard the ALTV proposal will work with whatever Table of Allotments is ultimately adopted by the FCC.

At the same time, however, UHF stations need some certainty that they will have the legal right to increase their power to competitive levels. Absent this assurance, UHF stations may delay or completely forego the roll out of DTV. There is no reason to bear the expense if you can't compete. This would have disastrous implications for the FCC spectrum recovery policies which assume a fairly rapid DTV deployment. Thus it is imperative that the FCC resolve the DTV power issue as soon as possible. We believe there is sufficient evidence to resolve the issue now, without further delay.

III. Technological Solutions: Increasing Power Through Tilt Beams and Other Technology

ALTV has proposed one possible solution to the UHF power problem. It is by no means the only solution.⁵ Nonetheless, it will afford UHF stations the opportunity to increase their power to competitive levels without requiring changes in the Table of Allotments or increasing interference above levels that already would exist under whatever table the FCC ultimately decides to adopt. A copy of the proposal is attached as Exhibit 1.

⁵ALTV is willing to examine other technical proposals which would permit DTV stations to increase their power. For example, Malrite has proposed a DTV tool kit which employs a variety of mechanisms to increase power to competitive levels. See Malrite Comments.

A. Maximization vs. ALTV's Proposal

The Commission's *Sixth Report and Order* establishes a procedure which permits a station to increase, i.e., "maximize" its coverage provided it does not cause any additional interference.⁶ Under the FCC's maximization approach a station seeks to expand its protected contour to encompass a larger area, in terms of geography and/or population. Stations maximizing their coverage areas may not exceed the coverage area of the largest station in the market. Unfortunately, as presently constructed, the FCC's maximization plan is an illusory promise during the transition period. In most congested markets there is no way a lower powered UHF station use the maximization process without causing at least some additional interference.

Recognizing the current problems with the FCC's maximization plan, ALTV proposes a plan that will *allow UHF stations to increase their power without expanding the station's protected contour*, hence causing additional interference to facilities in adjacent markets. Unlike the FCC's maximization plan, the proposal does not seek to expand a station's coverage area, but rather seeks to permit a station to increase its signal strength within the coverage area that results from the allotment assigned to it by the FCC. In short, this makes a station's area of reception better, not bigger.⁷

⁶*Sixth Report and Order* at para. 30.

⁷Importantly, ALTV's proposal should not be viewed as a substitute for maximization. Rather it complements the FCC's maximization procedures. Both plans can exist together.

Many of the criticisms directed at ALTV's plan misunderstand this basic fact. Because the plan will not expand the coverage area or the geographic size of a station's protected contour, many of the complaints are misplaced.

B. The One Megawatt Power Cap

ALTV's proposal states that a UHF/UHF DTV station *may* operate at a maximum of one megawatt. Critics of the proposal argue that this is an attempt by UHF stations to increase power to maximum levels equal to or greater than their VHF/UHF competitors.⁸ This is simply not the case.

1. One megawatt is a maximum legal authorization, not a guarantee

Stations would be permitted to increase their power to one megawatt *only* where they do not cause any additional "incremental visible interference." Thus stations are not automatically granted an increase of power to one megawatt. To the contrary, the one megawatt cap is a legal maximum limit that a station may use, provided it meets the following requirements regarding interference.

Similarly, Viacom and other UHF stations have filed an intermediate maximization proposal with the FCC. As we will discuss, *infra*, ALTV supports this plan.

⁸Critics of the proposal argue that the one megawatt power cap should also include a corresponding limit on antenna height. Certainly, the trade off between tower height and power is an essential element in developing a table of allotments. Under the tilt beam plan, however, there will be no expansion of the stations protected contour. As a result the tower height issue does not appear to be as important.

Accordingly, ALTV is asking the FCC to recognize that a station has the legal right to increase its power up to one megawatt, *provided* it meets the interference requirements outlined in the proposal. What we are asking for is the legal opportunity to increase power up to one megawatt.⁹

Whether any particular station would be permitted to increase its power would be a function of meeting the interference standards contained in the proposal. The interference standards can be divided into three segments: 1) increased signal strength at the protect contour (radio horizon), 2) potential increased interference within a station's protected contour and 3) possible increases in background digital noise.

Signal strength at the (radio horizon) contour: This is a key concept to the proposal. A station that is assigned a specific power by the FCC, e.g., 50 kilowatts, will provide a certain predicted signal strength at its radio horizon. Under ALTV's proposal, the predicted signal strength at a "tilt beam" station's radio horizon cannot increase above the level that would have existed had the station been operating at the FCC's assigned power without a tilt beam antenna.

Thus, at the contour (radio horizon) it is not a question of measuring increased interference to or from adjacent market television stations. It is not a question of measuring

⁹There is no question that electronic tilt beam antennas are not only technically feasible but are capable of permitting a station to increase its power 15 to 20 times. *See* Letter from Dielectric Communications to Nat Ostroff, December 15, 1997, attached hereto as Exhibit 2.

50/90 curves. This issue is straight forward. Based on predication methodologies and antenna manufacturers specifications, will the tilt beam antenna provide a field strength at the station's radio horizon that is greater than the predicted field strength that would have existed if the station operated without a tilt beam consistent with the power assignment found in the Table of Allotments. If the answer is yes, then a station must present a plan to the FCC to either increase the tilt of the beam or lower the power to some level below one megawatt. As a result, it is possible that some stations may not be able to increase their power to one megawatt even with a tilt beam.¹⁰

Interference within the "tilt beam" station's radio horizon: There is no question that squeezing in approximately 1600 new stations in the UHF band will cause additional interference. This unfortunate fact of life will exist under any table adopted by the FCC. The critical questions is to try to avoid, if possible, visible interference above and beyond that which would already be accepted by the FCC. ALTV's proposal would require stations using tilt beam antennas to limit adjacent channel, RF and taboo interference to those visible levels that would have existed if the station was operating at the power levels assigned to it under the Table of Allotments without a tilt beam.

¹⁰Some have expressed concern that weather changes and tower sway will make tilt beams unreliable from an interference standpoint. Dielectric's states that a 1000 foot tower and wind speed of 50 mph will result in a margin of error of approximately 4 degrees. It further suggests a means for correcting this such an error. Certainly, these factors can be included in prediciting the variability of tilt beams. See Dielectrics Letter to Nat Ostroff, December 15, 1997 at Exhibit 2.

ALTV does not discount the FCC's concerns about the potential for increased interference. Indeed, after years of analysis MSTV is now concerned about DTV to DTV interference. Moreover, there is a recent concern about the potential for adjacent channel interference, especially if the DTV and NTSC stations are not co-located on the same tower. No doubt the FCC will address these issues. Whatever standards the FCC would adopt in terms of acceptable or unacceptable interference levels with respect to DTV-DTV, adjacent channel, RF mask or co-channel interference would be applicable to stations employing tilt beam technology.

ALTV's proposal would require stations using tilt beam technologies to remedy any incremental visible interference that would occur as a result of increasing power. Transmitter manufacturers certainly know the specifications of DTV transmitters that would be sold to television stations. It is not impossible to measure or control these emissions. This could mean that a station would be required to employ a variety of solutions including lowering transmitter power, using filters or any other technology to reduce emissions.¹¹

Overall Digital Noise; Shared Responsibility: One issue which arises under any DTV table is the potential problem associated with increases in background digital noise. The concern is that overall emissions in the UHF band may cause interference to existing NTSC television receivers.. At this point in time, it is not clear to ALTV whether the DTV table of allotments,

¹¹This is hardly a new or novel idea. For years the FCC has required stations to use filters to resolve difficult interference issues, such as the TV Channel 6/FM interference, land mobile to TV interference and channel 13 interference problems along inter-coastal waterways.

with its current one megawatt assignments would cause similar problems. In other words, digital noise may be a problem now, without the use of tilt beam antennas. Moreover, if overall digital noise is a concern, correcting the problem may vary depending on the number of stations located within a particular market. To the extent this is a major problem, the ALTV proposal states that stations in each market shall be responsible for their proportionate share of resolving the problem. To this end we urge the Commission to examine this issue. If it is found to be a problem, then procedures and standards should be adopted.

**2. The one megawatt cap will not give
UHF/UHF stations an unfair competitive advantage**

Some have suggested that permitting UHF/UHF DTV stations to increase power to one megawatt alters the competitive balance. They argue that the FCC's maximization plan limits maximization to the coverage area of the largest station in the market. They argue the same principle should be applied to ALTV's proposal. To the extent these arguments are not based on engineering considerations, the FCC should discount them. Nonetheless, the concerns are misplaced.

First, VHF stations operating DTV facilities in the UHF band will still retain a significant Grade B coverage advantage under ALTV's plan. The protected contours of the VHF/UHF DTV stations will still, as a general matter, exceed the protected coverage area of their UHF/UHF DTV stations. To the extent that VHF stations believed that replicating coverage out to the existing Grade B contour was critical to the transition, then retaining this advantage should be a

significant benefit to these stations. UHF/UHF DTV stations employing tilt beam technology under this proposal may not expand the coverage area of the station beyond the protected contour assigned to it under the table of allotments assigned to it by the FCC. This means that stations qualifying to use one megawatt of power must aim the antenna at some point below the horizon. This is necessary to make sure the field strength at the protected contour (radio horizon) does not exceed the level assigned under the table of allotments. Stations VHF/UHF DTV stations assigned one megawatt of power under the table of allotments can aim their antenna at the horizon. As a result, VHF/UHF stations remain able to provide service over a larger geographic area.

The ALTV proposal better replicates the analog coverage patterns at the station's radio horizon or Grade A signal. While VHF analog stations enjoy a significant advantage in terms of geographic coverage out to their Grade B, VHF and UHF stations are *roughly* equivalent in terms of Grade A coverage in today's analog world¹². Assigning minimal power, e.g., 50 KW to some UHF facilities distorts this competitive situation in two ways: 1) UHF/UHF DTV stations do not appear to have been given sufficient power to insure reception on television sets with indoor antennas and 2) the geographic coverage area of a VHF/UHF stations Grade A service has been expanded to the point where the competitive relationship that currently exists between UHF and VHF stations within the Grade A service area has been irreparably altered.¹³

¹²See, ExParte Letter to Bruce Franca, FCC from Nat Ostroff, Sinclair Broadcasting filed July 14, 1997.

¹³*Id.*

Second, much of the broadcast competition that exists in the analog world is the result of the competition provided by UHF stations. In turn, this competition is a function of an analog UHF station being able to roughly approximate the Grade A coverage area of its analog VHF competitor. While VHF stations still enjoy some advantage at the Grade A, it is not overwhelming. However, assigning a VHF/UHF DTV station up to *twenty times the power* of a UHF/UHF DTV station will completely distort this competitive arrangement. The result is completely contrary to the overriding goal of replicating the existing analog environment

Third, because a station using a tilt beam antenna is not expanding its overall coverage area, there is no reason to limit its potential power to a level equal to any other station in a market. This is not maximization, and the limitations contained in the the FCC maximization plan are simply not applicable. VHF/UHF stations with higher powers will always have the geographic coverage advantage because the geographic area of their protected contours are larger from the start.

Fourth, VHF/UHF stations that have been assigned power levels below one megawatt, are free to employ tilt beam technology to increase their power. Such stations could increase their power to one megawatt provided they did not expand their protected contour and met all the interference standards outlined above. The reverse should also be permitted. Some television stations have been assigned extremely low DTV powers in the VHF band¹⁴. These stations should be permitted to increase their power, provided the interference standards are met.

¹⁴See Comments of Malrite

Finally, there is no question that stations employing this technology will have to bear additional costs and expense. Nonetheless, the decision to bear this burden and increase power should not be restricted by a competitor. All stations, including VHF/UHF stations will have an opportunity to increase power under the proposal. The limitations contained in the FCC's maximization plan are simply not applicable to ATLV's proposal.

C. Procedure & Enforcement

There is nothing in the FCC's *Sixth Report and Order* that would preclude a station from increasing its power by using tilt beams or other technologies. To the contrary, the *Sixth Report and Order* did not rule out the possibility of using an approach similar to ALTV's proposal as an experiment.¹⁵ Indeed the compromise plan submitted previously by the Joint Broadcasters contemplated the use of tilt beam antennas.

Allow stations to improve their indoor antenna reception by increasing their overall power beyond the power levels specified in the DTV Table and target such power within their current Grade A service area, provided no interference is caused to other stations operating on the same or first adjacent channel.¹⁶

The Commission did not expressly reject this approach. In addressing this and other issues raised by the Compromise proposal filed by the Joint Broadcasters, the Commission implied that proposals such as the tilt beam approach may be useful.

At the same time, we recognize, as pointed out by many of the commenting parties, that the service replication approach proposed by the broadcast

¹⁵*Sixth Report and Order* at para. 30.

¹⁶*Id.* at para 22.

community and presented in the Sixth Further Notice could lead to increased disparities among stations. The basic compromise plan set forth in the reply comments of AAPTS, the Broadcasters Caucus and others, addresses many of these concerns. We believe that many aspects of the compromise would be useful in developing a more equitable service replication approach.¹⁷

By filing the proposal, ATLV is requesting that the FCC clarify the *Sixth Report and Order* and expressly recognize that a solution based on technology, such as tilt beam antennas can be used to help stations resolve their power problems.

In creating a procedure to administer this plan the Commission must balance conflicting goals. On the one hand, UHF/UHF DTV stations must be permitted to increase their power. Absent these power increases there is a very real possibility that many UHF DTV stations will simply not survive the transition period. Absent set procedures, the FCC must expect numerous oppositions to be filed that are predicated on competitive, not engineering concerns. Stations, especially UHF stations which are generally the weaker stations in a market, cannot be drawn into protracted FCC hearings. The costs in time and money alone would prevent many stations from seeking power increases. These stations must have an orderly process that provides some certainty that they will be permitted to increase power. On the other hand, the FCC must balance these interests against the potential for increased interference to existing UHF NTSC service and new DTV UHF service from potentially harmful interference.

¹⁷*Id.* at para 29,

No one is more aware of this problem than existing UHF analog stations. These are the stations that would have to bear the burden of increased interference both to their existing analog NTSC facilities as well as their new DTV channels. To this end, it is worth noting that an overwhelming majority of UHF stations and UHF based networks support ALTV's approach. We believe the FCC should listen carefully to these stations when deciding this issue. The procedure set forth in ALTV's plan is an attempt to balance these conflicting interests.

1. Burden of Proof

Critics of the proposal claim that the plan imposes an unnecessary burden on stations receiving interference from stations operating with tilt beam antennas. Precisely the opposite is true. We believe stations deciding to use tilt beam antennas bear significant burdens under the proposal.

Initial filing, Notification and Engineering Report: Stations proposing to increase their power above the level assigned under the Table of Allotments must first present an engineering plan to the FCC. At the same time the application is filed, these stations must notify other stations in the market. This will place all affected stations on notice that a tilt beam will be used. Obviously, prior FCC approval will be required *before* a station's power can be increased.

At the time of filing, either as an initial construction permit application or subsequent modification, a station must present an engineering report detailing the power level and tilt beam antenna to be employed. The report must be prepared by a certified, registered professional

engineer. Based on the manufacturer's specifications, the station is responsible for demonstrating that the predicted field strengths at the station's protected contour (radio horizon) will be no greater than the predicted field strengths that would exist if the station was operating under the assigned power contained in the table of allotments.¹⁸ The report must also certify that the station has met whatever standards the FCC has adopted to avoid DTV-DTV, adjacent channel and taboo related interference. This will also include any RF mask specifications enacted by the FCC.

Subsequent on-site certification: During the program test authority period, a station is required to conduct a further engineering analysis to make sure the tilt beam is performing according to the specifications contained in the original application. The object here is to take a second look to make sure the tilt beam antenna is performing properly. Again, this analysis must be performed by a certified, registered professional engineer. The details and methodology of what must be reported can be established by the FCC. Nonetheless, ALTV would expect that the report include the following.

The engineer must certify that the tilt beam antenna was installed properly and consistent with the manufacturer's specifications.¹⁹ This analysis, by itself, should insure that the predicted

¹⁸ Tilt beam antenna performance can certainly be predicted based on the manufacturer's specifications.

¹⁹Subsequent verification of a tilt beam antenna installation is one effective means to insure the antenna will operate consistent with the representations contained in a station's application. *See* Letter from Dieletrics to Nat Ostroff, Exhibit 2.

coverage area and field strengths contained in the station's application will be replicated in the real world. If necessary, the FCC could require additional verification. This could take the form of field tests to insure the antenna pattern matches the pattern described in the initial application. Note, this does not necessarily mean that one must measure field strengths at a station's Grade B contour. Line of sight observations at a station's radio horizon may be sufficient. The engineer would certify that a station's transmitter met all necessary RF mask and emissions requirements. Finally, the engineer would make sure that all adjacent channel, taboo and DTV-DTV standards were met.

2. The 48 hour rule -- Obligation to Correct Interference.

Stations employing tilt beam technology have an obligation to correct and resolve interference problems that are brought to their attention. These problems must be corrected immediately - within 48 hours. In short, a station confronted with an interference problem will probably have to "power down" while the problem is being resolved. This provides a tremendous safeguard to other stations in the market. Indeed, it offers far more interference protection than current FCC procedures. With this rule in place there is simply no way other NTSC or DTV stations will have to accept levels of interference above those levels contemplated by the Table of Allotments.

The 48 hour rule also creates a tremendous incentive on the part of those using tilt beam technology to make sure they are broadcasting consistent with the engineering plan filed with the FCC. Investing in higher powered transmitters, filters and engineers can be expensive. Given

these additional costs, a station is unlikely to engage in sloppy engineering if there is even a chance that the station must lower its power within 48 hours to correct an interference problem. This is especially true if a station must remain powered down for an extended period of time. Thus, the rule itself creates a tremendous incentive for stations to make sure their tilt beam antennas and transmitters will meet all applicable FCC standards. Simply stated, before stations spend the money on higher power transmitters and the necessary filters, they will make sure the system will work.

3. Complaints: Burden of Proof

Some argue that the plan places too much of a burden on stations potentially receiving additional, incremental interference. We disagree. The problem is to develop a process that will permit legitimate interference complaints to be heard while, at the same time, preventing spurious claims from delaying UHF/UHF DTV implementation. ALTV is under no illusion that in the real world complaints of this type can be filed for “competitive” reasons. In this regard we should not lose sight of the fact that many UHF/UHF DTV stations may simply not be economically viable if there is no increase in their power levels. The costs of defending against and the time involved in resolving spurious interference claims can effectively prevent many UHF/UHF DTV stations from making the transition to digital transmission.

Given the requirements imposed on those stations employing tilt beam antennas, we do not believe it to be unreasonable for a complaining station to be required to provide engineering

evidence that their station is actually receiving visible interference at levels beyond those would exist if the station was operating at the power assigned to it by the FCC. We would envision that a complaining station could make such a showing in a variety of ways. It could demonstrate that the station's tilt beam antenna pattern does not comport with the pattern that was filed with the FCC. It could show that the tilt beam antenna was not properly installed. If it desires, it could take measurements in the field. What is important is that the complaint contain a report by a registered professional engineer stating that the problem actually exists.

On this point critics are quick to point out that making field measurements is a difficult task. Measurements are imprecise and can vary depending on the time of day and time of the year. ALTV does not discount the difficulties involved. Indeed, the entire DTV transition is based on numerous leaps of "engineering faith." Nonetheless, we find it difficult to believe that the engineering profession and the FCC cannot establish some standard; basic methodologies for determining whether a station is broadcasting consistent with an engineering report filed with its construction permit. For example, the FCC has specific procedures for analyzing the interference potential interference for radio stations using directional and/or focused antennas. Recently, broadcasters have figured out a way to measure whether specific houses are receiving a Grade B signal for the purposes of calculating "white area protection" under the Satellite Home Viewer Act.

It must be remembered that for stations operating without tilt beams there is no second interference check. By definition, stations operating at their assigned power levels and locations

are presumed not to be interfering with other NTSC or DTV stations. No subsequent verification is required and there is no complaint process. The complaint process established in the ALTV proposal simply provides an additional guarantee that a station employing a tilt beam antenna will not be causing additional, incremental visible interference.

4. Dispute Resolution: Engineering Arbitrator

As the FCC moves forward with the DTV transition, it will undoubtedly face numerous complaints from both NTSC and DTV stations. This will occur whether or not the tilt beam proposal is adopted. ALTV recognizes that Commission resources will be strained during this period. Resolving interference disputes can be a long, drawn out process.

To help expedite the process, ALTV has proposed a plan for resolving interference based disputes. It is based on time honored procedures that can be found in many commercial contracts that use the American Arbitration Association.

If an engineering dispute arises, then each station's engineer selects a third engineer. This engineer would act as an arbitrator. The arbitrator's job would be to analyze the data and try to encourage the parties to work out the dispute. Absent an agreement the arbitrator would make a preliminary determination regarding the complaint. The complaint would then be sent to the FCC. The most important decision to be made by the arbitrator is whether the station using

tilt beam technology must continue to operate at reduced power pending the outcome of final FCC action. The arbitrators finding would be given presumptive weight by the FCC.

This process will help the FCC resolve complaints on an expedited basis. In many respects it is not unlike the frequency co-ordination process. The Commission has the authority to enact a rule establishing such a procedure.

IV. Intermediate Maximization

As noted above, ALTV's proposal is different from the concept of maximization. Under our approach, a station would not be expanding the coverage area of its protected contour. Another equally valid approach, that can help to resolve the UHF power problem, has been proposed by Viacom and other UHF broadcasters. Under their approach, the minimum UHF/UHF DTV power would be raised from 50 to 200 kilowatts. The proposal also establishes a new definition of *de minimis* interference. As such the proposal forwarded by Viacom and UHF broadcasters is consistent with ALTV's *Petition for Reconsideration* that was filed previously with the Commission.²⁰ In the *Petition*, we requested that UHF/UHF DTV stations be permitted to increase power to the point where the interference that would occur to existing NTSC stations constituted no more than 5% of the geographic area or 5% of the population of the interfered station's Grade B contour. Viacom's 200 kilowatt base power proposal establishes a *de minimis* interference standard that is well within the parameters set forth in

²⁰Petition for Reconsideration by the Association of Local Television Stations, Inc. in MM Docket No. 87-268, June 13, 1997.

ALTV's earlier proposal for DTV to NTSC interference.²¹ Accordingly, ALTV supports this approach as one way to help resolve the power issue.

Viacom's and ALTV's approaches are not mutually exclusive. To the contrary, they are complementary. Our approach focuses on increasing power without increasing the coverage area of the a station's protected contour. Viacom's approach increases the protected contour while limiting the amount of additional interference that may be received. Both proposals will help increase the amount of power broadcast within a station's Grade A, thereby improving indoor reception. The FCC could blend the proposals, establishing a minimum floor of 200 kilowatts and for those stations wishing to broadcast above their assigned power, require the use of tilt beam antennas.

V. Conclusion

The risks in this proceeding are tremendous. Unless the UHF power issue is adequately addressed, a large segment of the television industry may find it difficult to transition to digital television. ALTV has no doubt that those wanting to prevent UHF stations from competing effectively in the digital world will list a number of engineering difficulties with our proposal.

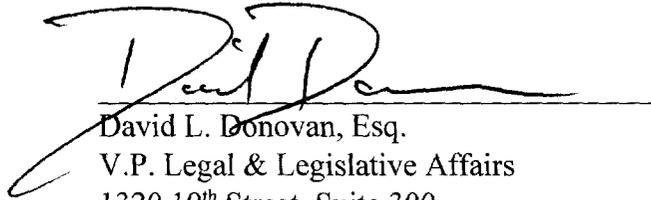
We urge the Commission to examine these criticisms in an objective fashion not from the

²¹Viacom's proposal sets a *de minimis* NTSC interference standard at no more than 2% additional (3% total) interference of the population of an NTSC station. ALTV's previous proposal assumed there would be no additional interference to new UHF DTV assignments using the FCC's standards for measuring DTV to DTV interference. While Viacom's proposal does not appear to directly address DTV to DTV interference, the FCC will no doubt resolve this issue in light of new DTV to DTV interference concerns.

perspective of what exists today, but what is possible in the very near future. Permitting tilt beams and other technological fixes will no doubt spur additional advances in filtering and tilt beam technology. In the past few years, there have been tremendous gains in digital television technology. Improvements will continue -- especially if antenna and transmitter manufacturers have the incentives to make such improvements. All of us, both UHF and VHF stations are wrestling with transition issues. All UHF stations ask, is that the FCC give them the tools to compete in the new digital age.

Respectfully submitted:

**ASSOCIATION OF LOCAL TELEVISION
STATIONS, INC.**

A handwritten signature in black ink, appearing to read "David Donovan", written over a horizontal line.

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