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Secretary of the
Federal Communications Commission
1919 M Street N.W.
Washington, D.C. 20554

November 21, 1996

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Dear Secretary:

Enclosed please find one original and four copies of the LeSEA Broadcasting Corporation comments on the Sixth Further Notice of Proposed Rule Making MM Docket No. 87-268 in the matter of Advanced Television Systems and their Impact upon the Existing Television Broadcast Service. Thank You

Respectfully submitted

Douglas W. Garlinger
Director of Engineering
LeSEA Broadcasting Corp.

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D.C. 20554

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Service)

MM Docket No. 87-268

Comments by LeSEA Broadcasting on Sixth Further Notice

November 20, 1996

By: Douglas W. Garlinger
Director of Engineering

LeSEA Broadcasting Corporation
P.O. Box 50450
Indianapolis, IN 46250

LeSEA Stations:

WHMB-TV40 Indianapolis, Indiana
WHMB-TV46 South Bend, Indiana
KWHB-TV47 Tulsa, Oklahoma
KWHE-TV14 Honolulu, Hawaii
KWHH-TV14 Hilo, Hawaii
KWHM-TV21 Wailuku, Hawaii
KWHD-TV53 Castle Rock, Colorado
WHNO-TV20 New Orleans, Louisiana

COMMENTS by LeSEA Broadcasting on the Sixth Further Notice

LeSEA Broadcasting Corporation has been the licensee of UHF television stations for approximately twenty-five years. LeSEA is presently the licensee of eight full power UHF television stations. LeSEA is very familiar with the characteristics of UHF NTSC propagation and the inherent problems posed by such operations.

The UHF service has long been at a disadvantage to the VHF service in a number of areas such as service area and transmitter energy costs to name just two. Many years ago it was determined that the needs of the viewing public required more television stations than 12 VHF channels could supply. The UHF service was created to fill that gap, but economic realities, market forces and propagation characteristics continue to render the UHF channel less desirable than the VHF channel.

The DTV service offers the opportunity to level that playing field as we cross the bridge into the twenty-first century. Unfortunately the proposed DTV table of allotments embodies the principle that "some stations are more equal than others" The mighty VHF stations remain mighty DTV stations.

The proposed DTV table of allotments seeks to extend the radio horizon by brute force. LeSEA is skeptical that this theoretical attempt at service area replication will achieve its intended result. We realize the intent of high powered DTV service in excess of 2000 kW is to provide service to the "fringe" NTSC areas beyond approximately 100 Km (60 miles). We are concerned that it will also have the effect of providing more solid reception in adverse circumstances within metropolitan areas. This will unfairly perpetuate the advantage that existing VHF stations have over existing UHF stations.

The extraordinary DTV UHF power levels required to replicate the coverage area of existing VHF stations places an impractical burden on the DTV Channel allocation process. The facility to transmit such a signal also becomes massive. A three (3) million watt ERP DTV assignment using a modest gain UHF antenna would require a 600 kW peak transmitter. It has been estimated¹ that 20% of DTV stations would require transmitters larger than 480 kW and 50% of DTV stations would require a transmitter larger than 240 kW.

¹ Implications of the FCC DTV Allotments, by Dr. Oded Bendov, Vice President Antenna Engineering and Advanced Technologies, Dielectric Communications.

An unambiguous example of the inequity created by the proposed DTV allotment table can be found in Hawaii. The LeSEA station serving Honolulu has been assigned DTV channel 24 with an ERP of 1 KW. The present LeSEA station operates at 75 KW ERP on NTSC Channel 14. Our desire to increase our NTSC ERP has been constrained by Land Mobile considerations. There are no such considerations for DTV Channel 24. LeSEA desires a significant increase in the DTV power assigned to the DTV allotments for KWHE-TV14 Honolulu, KWHH-TV14 Hilo and KWHM-TV21 Wailuku.

An examination of these allotments reveals that while LeSEA would be assigned 1 KW on DTV Channel 24. Two former NTSC VHF channels on DTV Channels 16 and 49 are assigned 1122 kW and 3162 kW respectfully. Both of these operations have the same HAAT as the LeSEA Station. Two other former VHF stations operate with 3162 kW and 3801 kW on DTV channels with significantly greater HAAT.

The entire island of Oahu occupies an area of 1549 sq. km (598 sq. mi.). We see no credible rationale that would justify these power level disparities in a market so finitely defined. Other inappropriate disparities exist throughout the proposed DTV allotment table but quantifying the disparity in such a clear illustration is not so easy.

In Hilo, HI the LeSEA station is assigned DTV Channel 18 with only 0.1 kW ERP while a former VHF station on DTV Channel 35 has a proposed DTV power of 4073.8 kW. This disparity in proposed power levels are unacceptable to LeSEA. For these reasons we concur with the suggestion found in paragraph 12 of the Sixth Further Notice: "We would also attempt, where possible to provide smaller NTSC stations with larger DTV coverage areas, up to the size of the coverage area of the largest station in their market."

In Colorado, the 5 million watt LeSEA station KWHD-TV53 near Denver is granted DTV Channel 47 with 322.7 kW while three former low-band VHF stations are assigned 5 million watts of DTV power from their locations on mountain ridges overlooking Denver. Although we are satisfied with our DTV channel allotment, we are dissatisfied with this ERP disparity.

In Tulsa, the LeSEA station KWHB-TV47 has been allotted a satisfactory DTV Channel 48. Once again the disparity exists in the 90.5 kW ERP we were allotted versus the 3900 kW ERP of other stations. LeSEA has the desire to serve the same geographic area of Oklahoma that the other stations do. Given our existing 1500' HAAT we should have the same opportunity to do so.

KWHB-TV47 has a pending application for modification to increase its NTSC power to a full 5 million watts ERP. The proposed DTV Table of Allotments did not take into account the proposed increase in our NTSC service area when computing DTV power levels. We also have 5 million watt pending NTSC applications for modification at WHMB-TV40 Indianapolis, WHME-TV46 South Bend and WHNO-TV20 New Orleans. In some cases our proposed NTSC ERP increases may not been taken into account when computing the DTV power levels. We would request that these four pending modification applications be taken into consideration in any final plan to replicate our coverage areas.

In South Bend, WHME-TV46 was assigned a DTV power of 50 kW on DTV Channel 45. This is to provide service to an area of 15,723 sq. km. Our pending NTSC modification would increase that area to 21,948 sq. km. WHME-TV46 should receive an increase in DTV power to approximately 350 kW to replicate this coverage and to put it at parity with other stations in the market.

We are satisfied with all DTV Channel allotments proposed for the LeSEA stations with the single exception of the DTV Channel 52 allotment for WHMB-TV40 in Indianapolis. We are dissatisfied with every DTV power level assigned to every LeSEA station for the general reasons previously set forth.

In Indianapolis, WHMB-TV40 should receive an increase in Channel 52 DTV power to serve an area of 21,549 sq. km. as outlined in the pending modification. A DTV power level of approximately 375 kW would appear to achieve this result.

LeSEA is opposed to the concept of having to relocate the WHMB-TV operation to a DTV Channel 52 outside of the core spectrum. LeSEA wishes to avoid the expense and market uncertainties associated with moving our DTV operation twice. We are generally supportive of the core spectrum option and agree that the higher UHF channels are less desirable due to propagation losses. However, LeSEA proposes that the core spectrum could be expanded marginally by three additional DTV channels to include DTV channels 7-54.

We would seek to improve our DTV Channel 52 allotment for WHMB-TV. We prefer an allotment closer to Channel 40. We would hope that steps could taken to reduce the pressure on core spectrum allotments and allow us to find a more satisfactory allotment in the Indianapolis market.

LeSEA proposes that non-commercial vacant allotments be eliminated. This will alleviate some of the pressure on the number of core spectrum allotments. This may open up more desirable allotments in some markets.

LeSEA agrees with the proposal in paragraph 56 of the Sixth Further Notice that would permit the re-location of transmitter sites within a three-mile radius. We would also raise an additional question for consideration. Existing NTSC transmitter locations are governed by placing a City Grade Signal over the entire principle city of license. Is there an analogous requirement for DTV? May a DTV station re-locate its transmitter site anywhere within its service area provided it maintains substantially the same service area size and shape? Such re-locations could be feasible using the directional techniques available to UHF antenna manufacturers.

LeSEA further proposes that the allotment scheme for the DTV transition be modified to resemble the future DTV scheme that is outlined in paragraph 95 of the Sixth Further Notice. In other words, the proposed allotments for existing stations should be limited to power levels of 1500 KW at 1000' HAAT and pro-rated accordingly as a function of tower height. The table in paragraph 95 offers a reasonable starting point for discussion.

A revision in maximum permissible power levels would help reduce the power disparities evident in the present proposal. It might also alleviate the pressure on the core spectrum and open up a few additional core channels in some markets. We believe that DTV power levels in the "megawatts" should only exist on short towers and low HAAT locations. We believe the purpose of high power in DTV should be reserved for stations serving an area from a less than desirable HAAT.

We are also very concerned that the Cable TV Industry could legitimately use the lower RF signal level measurements of the modestly powered DTV stations to deny them carriage when compared to the high powered DTV RF signal levels of the former VHF stations.

We believe that the Cable TV Industry will avail itself of every conceivable opportunity to deny carriage to non-network stations. Actual interference caused by high power DTV stations to existing NTSC stations during the transition period will provide the Cable TV Industry with the justification they need to deny coverage.

Basically, LeSEA believes that the approach to the Digital TV service should be to equalize the coverage areas of all the stations within a given market. We believe that the individual station should have the choice of which allocation to keep and that the broadcaster should be permitted to convert is NTSC channel to DTV operation.

And finally.....

Paragraph 78 of the Sixth Further Order solicits creative proposals in the DTV frequency labeling plan. We have such a proposal that we submit only in the interests of creativity. We have previously proposed the expansion of the core spectrum to include 48 channels from 7 to 54. We have observed that the market forces in broadcast radio have become quite fond of the letters Q, X, Y and Z in their station identification. In television there seems to be a preference for the Channel designations of 2 to 13. We propose combining these two schemes to form 48 alpha-numeric channel designations from DTV Channel Q2 thru DTV Channel Z13. NTSC/DTV Channel 7-18 becomes Q2-Q13, Channels 19-30 becomes X2-X13, Channels 31-42 becomes Y2-Y13 and Channels 43-54 becomes Z2-Z13. We realize that some markets may have two channels with the same numeral. However, under this plan everybody gets a low channel number and a sexy consonant to go with it.

Respectfully submitted



Douglas W. Garlinger
Director of Engineering
LeSEA Broadcasting Corp.

Ph. 317-773-5050 ext 325
Fax: 317-776-4051