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

NOV 22 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

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

COMMENTS OF FREEDOM COMMUNICATIONS, INC. ON THE
SIXTH FURTHER NOTICE OF PROPOSED RULE MAKING

Freedom Communications, Inc. (Freedom) submits these comments in response to the Commission's *Sixth Further Notice of Proposed Rule Making* in the above-referenced proceeding.[1]

I. INTRODUCTION

Freedom is the parent corporation of the licensees of six full-service commercial television stations: WLNE(TV), New Bedford-Providence, Massachusetts; WRGB(TV), Albany-Schnectady-Troy, New York; WTVC(TV), Chattanooga, Tennessee; KFDM-TV, Beaumont-Port Arthur, Texas; KTVL(TV), Medford, Oregon; and WPEC-TV, West Palm Beach, Florida. All of these stations operate in small or mid-sized markets. As an experienced operator of these stations, Freedom is well-qualified to comment on the effect of the Commission's rules and proposals for the implementation of digital television (DTV).[2]

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1 *Sixth Further Notice of Proposed Rulemaking*, MM Docket No. 87-268, FCC 96-317 (Rel. Aug. 14, 1996) (*Sixth Further Notice*).

2 Digital TV refers to any technology that uses digital techniques to provide advanced television services such as high definition TV (HDTV), multiple standard TV (SDTV) and other advanced features and services. *See Sixth Further Notice*, FCC 96-317 at para. 1, n. 1.

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Freedom continues to support the Commission's efforts to make DTV a reality. As Freedom previously noted, however, in order to provide existing programming *via* DTV, each of the approximately 1500 operating TV stations will have to spend tens of millions of dollars. This existing free, over-the-air broadcasting service will remain strong and viable only if a realistic DTV implementation plan is adopted. As the Commission moves forward in implementing DTV, Freedom urges the Commission to establish an allocation table that addresses certain inequities in the current NTSC allocation scheme, avoid the problems associated with operating outside of the "core" DTV spectrum, and provide a realistic implementation schedule for stations operating largely through the use of TV translators.

II. PLANS TO ALLOT DTV CHANNELS BASED ON CURRENT TRANSMITTER SITES MUST ACCOUNT FOR UNUSUAL CIRCUMSTANCES

In the *Sixth Further Notice*, the Commission proposed taking into account existing NTSC transmitter sites in the DTV allotment process. As Freedom has noted before in this proceeding, Freedom continues to have serious concerns about any DTV allotment plan that perpetuates the inequities of the current NTSC allotment system.[3] The current NTSC allotment scheme is a "patchwork quilt" of sorts that has developed over the years. In its effort to accommodate new broadcast outlets in a number of markets, the Commission has been compelled by the current NTSC plan to "shoehorn in" new allotments in a manner that places these new stations at a significant competitive disadvantage to other stations in their markets. This proceeding -- the creation of a new framework for DTV broadcast services -- provides a unique opportunity to correct such inequities.

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[3] *See* Comments of Freedom Newspapers, Inc. on the Second Further Notice of Proposed Rulemaking, MM Docket No. 87-268 (filed Nov. 16, 1992).

A. Using Existing Transmitter Sites Will Perpetuate Current Inequities in Certain Circumstances

In the *Sixth Further Notice*, the Commission requested comment on any circumstances where it might be desirable to evaluate DTV allotments on the basis of sites other than those occupied by existing TV stations.[4] WLNE-TV, Freedom's Channel 6 station in the New Bedford-Providence market, presents a real-life example of one such circumstance. In order to understand the possible effect of the DTV allotment process on WLNE, it is necessary to understand WLNE's history.

WLNE's transmitter location historically has been a handicapped one. Originally the New Bedford-Providence market was served only by CBS and NBC. In the Commission's attempts in the early 1960's to establish three competitive, off-air VHF stations in the New Bedford-Providence market, and thereby provide ABC an outlet there, it "shoehorned" Channel 6 into its present site through the expedient of sanctioning a transmitter site that is short-spaced to three other VHF stations and located about 20 miles away from the antenna farm where virtually all other stations in the market are located. Because WLNE's present transmitter site is disadvantageously situated for the existing off-air antenna orientation in the market, over-the-air viewers of the station have received a markedly inferior over-the-air signal from WLNE, compared to the signals of the other network stations in the market.

The original authority to construct WLNE's Channel 6 station specified a transmitter site that was off the mainland of Massachusetts, on Martha's Vineyard.[5] Eventually, the transmitter site was moved to its present location in Tiverton, Rhode Island.[6]

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4 *See Sixth Further Notice*, FCC 96-317 at para. 56.

5 *See WTEV Television*, 23 Rad. Reg. (P&F) 1050b, 1052 (1962).

That site is short-spaced to co-channel Stations WRGB, Schnectady, New York and WCSH-TV, Portland, Maine, and is also short-spaced to adjacent channel WCVB-TV (Channel 5), Boston, Massachusetts. Despite these short spacings, the Commission concluded "that the proposal [for a Tiverton location] ... represents the most practical solution for bringing a much needed VHF service to Providence and southern Massachusetts."[7]

However, the "move-in" to Tiverton has had a substantial public interest drawback: off-air antennas in the market generally are oriented toward the north, away from WLNE's transmitter site. WLNE's site is about 20 miles to the south of the Rehoboth antenna farm where the transmitter sites of other stations in the New Bedford-Providence market are located. Viewers with their antennas oriented toward Boston can receive the numerous Boston stations, most of which have their transmitting towers located at the antenna farm in Needham, Massachusetts. Because of the geographic relationship of Needham to Rehoboth, many viewers in the New Bedford-Providence market can orient their antennas to receive both the Boston and Providence stations, but they cannot also adequately "see" WLNE at its Tiverton site.

Because of the predominant off-air antenna orientation to pick up the Providence and Boston television stations, viewers of WLNE receive an inferior quality signal compared to the other two network stations in the market. The Commission's plan to use WLNE as a short-spaced hybrid station serving both New Bedford and Providence has not fully achieved either of its goals, and has unintentionally hindered the station's ability to serve viewers off-air.

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6 *See* File Nos. BMPCT-6524; BLCT-1719.

7 *WTEV Television*, 23 Rad. Reg. at 1056.

B. DTV Allotments Present Opportunities to Restore Competition

The current allotment patchwork has developed over the years in an effort to accommodate a growing demand for broadcast service. In certain circumstances, like WLNE's, second-rate solutions were implemented where there were no other technically viable alternatives. The Commission now has the opportunity for a fresh start as it moves toward the implementation of DTV. In correcting the inequities of the past through the DTV allotment process, the Commission would further its efforts to foster the competitive provision of new and innovative DTV services.

Freedom recognizes that this is a complicated proceeding and that establishing a DTV allotment table that corrects such inequities is a challenge. Freedom has been working with Commission staff and the Broadcasters' Caucus in an effort to forge a reasonable solution for WLNE. Based upon those conversations and our own technical analysis, Freedom believes that the Commission's proposed allotment table provides sufficient flexibility to accommodate some of Freedom's concerns. Under the Commission's proposal, WLNE would be assigned to Channel 49 at its Tiverton transmitter site. As our technical analysis (attached as Exhibit A) indicates, it appears that Channel 49 also could be used at Rehoboth without causing additional interference to other stations.[8]

Freedom believes that a reasonable solution to the current WLNE problem could be accommodated under the Commission's proposed allotment table. Freedom therefore urges the Commission to incorporate this type of flexibility in WLNE's channel allotment as it

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[8] Certain pockets of predicted interference may shift as a result of a relocation of the transmitter site, but no increase in interference is expected.

implements a final allotment table. In doing so, the Commission will go a long way toward resolving a problem that WLNE has endured for more than 30 years.[9]

III. ANY "CORE CHANNEL" APPROACH MUST ADDRESS THE INEQUITIES OF PROVIDING STATIONS BOTH NTSC AND DTV CHANNELS OUTSIDE OF THE CORE

Freedom generally believes that the full amount of spectrum that currently is allocated for NTSC service should continue to be available in the future, particularly during the DTV transition period. As the owner of three Channel 6 stations, Freedom has serious concerns about the Commission's core spectrum proposal as it relates to channels located outside of the core.[10] Specifically, Freedom is concerned that lower VHF stations operating in channels that the Commission has proposed to reclaim as part of its core approach (i.e. Channels 2-6) would permanently bear a disproportionate share of operating costs in the provision of DTV. Freedom is also concerned about the impact of potentially hitting such stations with a "double whammy," requiring them to temporarily locate to a non-core transitional channel in the upper UHF band (i.e. Channels 52-69), taking away their existing NTSC channel, and later requiring them to transition again to a DTV channel in the core region that becomes available after other stations complete their DTV transition. Both scenarios would place lower VHF stations at a significant competitive disadvantage as they enter the DTV marketplace.

Under the Commission's core spectrum approach, certain lower VHF stations (i.e., stations providing service on Channels 2-6), would also bear a disproportionate burden of the

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9 In order to ensure that a meaningful resolution may be reached, however, the Commission must also give careful consideration to any request by Freedom to move its DTV transmitter site to the Rehoboth antenna farm once it is assigned to Channel 49.

10 WLNE(TV), New Bedford-Providence, Massachusetts, WRGB(TV), Albany- Schnectady-Troy, New York, and KFDM-TV, Beaumont-Port Arthur, Texas are all assigned to Channel 6.

costs associated with the implementation of DTV compared with their market competitors who will be able to return to their "upper" VHF channels. In moving from a VHF channel to a UHF channel, most stations will face a substantial increase in operating costs, particularly those who will operate at the high end of the UHF spectrum. For example, under the Commission's proposed allotment plan, Freedom's WLNE, serving New Bedford-Providence, would move from Channel 6 to 49 and Freedom's WRGB, serving Albany-Schnectady-Troy, would move from Channel 6 to Channel 34. The power level needed to operate WLNE's DTV service at channel 49 is about 7 times that needed for its NTSC service at Channel 6, and will cost about $640,000 more per year. The power level needed to operate WRGB's DTV service at Channel 34 is about 18 times that needed for its NTSC service on Channel 6, or about $1.1 million more per year.

Under the Commission's plan, WLNE and WRGB will face a substantial increase in the costs of providing the power needed to operate their DTV service at Channel 49 or 34. While their VHF competitors may incur similar costs during the transition period, those costs would dramatically be reduced once they are permitted to return to their original VHF channel for DTV at the end of the transition period.[11] Rather than starting in the DTV marketplace on an even footing, the substantial disparity that results from allowing some stations to return to the VHF channels while requiring others to give theirs up would place stations that are presenting operating at lower VHF channels at a substantial competitive disadvantage.

Thus, Freedom encourages the Commission to make every effort to retain the lower VHF stations for DTV service. We believe that various technical penalties (i.e. leaky power lines, ignition noise, and educational FM interference) deserve more study before the low

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[11] Freedom estimates that stations that provide DTV in their original VHF channels will incur lower power costs than they currently bear for NTSC service.

band VHF is discarded for DTV. Any extra power requirements necessary to counteract these issues clearly would be less than the excessive power required to replicate VHF coverage using UHF DTV broadcasting. In fact, allocating some additional power specifically for Channel 6 allotments might solve the educational FM interference problem without causing any other interference problems to either adjacent Channel 5 DTV stations or other Channel 6 assignments.

These concerns are particularly acute in situations where a lower VHF station would be assigned a DTV channel outside the core and therefore would be hit with the "double whammy" of relocating twice – once to a transitional DTV channel outside of the core, and again to a permanent DTV channel in the Commission's core spectrum when one becomes available sometime down the line.[12] Thus, Freedom strongly endorses the Commission's allocation principle which calls for awarding the assignment of a DTV channel inside the "core" to a lower VHF station. As the Commission has recognized, since stations rely on channel identification as a critical component in retaining and expanding viewership, it is important to minimize the confusion and expenses associated with several channel transitions.[13] The substantial operational and technical costs in changing frequencies twice would place low VHF stations at a competitive disadvantage no one else would have. The transition to DTV will be expensive enough for stations that need to move only once. Coupled with the substantial uncertainty of which core channel they eventually would be assigned after the transition period, the problems of the "double whammy" mandate that non-core NTSC stations should be assigned non-core DTV spectrum only as a last resort.

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12 *See Sixth Further Notice*, FCC 96-317, at paras. 24-25.

13 *Id.* at para. 24 (noting the importance of establishing a plan to allow the greatest number of broadcasters to establish early and permanent channel identification with viewers).

IV. A FLEXIBLE IMPLEMENTATION SCHEDULE MUST BE ADOPTED FOR CONVERTING TV TRANSLATORS TO DTV

Freedom supports the Commission's efforts to minimize the burden on smaller stations that operate largely through the use of TV translators.[14] Freedom agrees that a flexible approach is needed to ensure that these stations can convert to DTV in a workable and realistic time frame.

Under the Commission's current implementation schedule, a station that operates largely through the use of TV translators (such as Freedom's KTVL in Medford, Oregon) would incur substantial costs converting all of its translators to DTV by the proposed conversion date.[15] KTVL's signal, for example, is now transmitted on more than thirty translators in order to provide service to Southwestern Oregon. Many of these translators serve only a few hundred people, many of whom rely on over-the-air broadcast for their news and entertainment programming, and many of whom will not transition to a new DTV sets on the same schedule as individuals in major markets. Although NTSC translators can be placed into operation for a few thousand dollars, the cost and availability of DTV translators remains unknown. Thus, absent the adoption of a flexible DTV implementation schedule, KTVL, in the 139th largest market, could be faced with converting its main station and each of its 30 translators on the same schedule as a station in the Los Angeles market that has no need for translator facilities. In view of consumers' substantial cost in acquiring DTV receivers, Freedom expects that there is unlikely to be an immediate

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14 *Id.* at para. 70 (requesting comment on any and all means of lessening the impact on low power TV and TV translator stations in the transition to DTV).

15 Under the existing implementation schedule, the Commission has (i) adopted a two-year application/three-year construction period for DTV facilities, (ii) proposed that existing stations simulcast 50% of their programming in seven years, and simulcast all of their programming in nine years, and (iii) proposed full DTV conversion in fifteen years.

demand for DTV in many of the smaller communities, such as Medford, that are served largely through the use of TV translators. This type of a schedule therefore does not comport with the realities of the marketplace that KTVL faces. The Commission therefore should take a liberal view with respect to requests for extensions of time to implement DTV that may be filed by TV stations that operate largely through the use of TV translators.

V. CONCLUSION

Freedom is committed to working with the Commission to make DTV become a reality. At the same time, however, Freedom cannot support a DTV scheme that perpetuates current inequities in the allocation table, particularly where a viable alternative exists for rectifying an historical anomaly such as the one that WLNE endures. To the extent that it adopts a core channel allocation approach, Freedom encourages the Commission to address the significant constraints imposed by assigning DTV channels outside of the core to stations with NTSC VHF channels that also are outside the core. Finally, in order to account for the economic realities of implementing DTV, Freedom supports the adoption of a flexible DTV implementation schedule to accommodate stations that operate largely through the use of translators.

Respectfully submitted,

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November 22, 1996

TECHNICAL STATEMENT
IN SUPPORT OF COMMENTS OF
FREEDOM COMMUNICATIONS, INC.
ON THE SIXTH FURTHER NOTICE
OF PROPOSED RULE MAKING

This Technical Statement was prepared on behalf of Freedom Communications, Inc. in support of Comments on the *Sixth Further Notice of Proposed Rule Making* in MM Docket No. 87-268. This statement was prepared to demonstrate the allocation feasibility of relocating WLNE-TV, New Bedford, Massachusetts, to the Rehoboth, Massachusetts antenna farm, home to the other commercial TV broadcast stations in the Providence, RI-New Bedford, MA market.

WLNE-TV is licensed for operation on Channel 6 with an nominal peak visual effective radiated power of 100 kW and an antenna height above average terrain of 283 meters. WLNE-TV's transmitter site is located approximately 30 km south-southeast of Providence. As illustrated in Figure 1, the Rehoboth TV transmitting "antenna farm" is located approximately 32 km (20 miles) north-northwest of WLNE-TV's present transmitter site. The Rehoboth transmitter antenna farm is employed by WJAR(TV), WPRI-TV and WNAC-TV, all Providence, RI. It is manifest from Figure 1 that most Providence viewers with outdoor receiving antennas pointed toward the Rehoboth antenna farm will find the Boston television stations within the

main beam aperture of the antenna.[1] Also evident is that receiving antennas pointed in the north/northeasterly direction will substantially attenuate signals from the south/southeast -- the direction of WLNE-TV. The new DTV allotment table presents an opportunity for the Commission to correct this situation.

The Commission proposed the allotment of DTV Channel 49 for WLNE-TV ostensibly at the WLNE-TV Tiverton tower site. However, study indicates that DTV Channel 49 may be utilized at the Rehoboth antenna farm with very little adverse impact on the DTV allotment scheme. Figure 2 is a tabulation of the critical allocation constraints for WLNE-TV based on the proposed separation criteria proposed in the FCC's *Sixth Further Notice*. This table demonstrates the feasibility of the use of Channel 49 for WLNE-TV at the Rehoboth site.[2] There are two instances where there are reductions in the taboo channel separations: Channel 44, Boston; and Channel 56, Cambridge. However, in both instances, it is estimated that the predicted interference areas are reduced by 380 square kilometers and 210 square kilometers, respectively. With respect to the Channel 48 assignment at Worcester, there is a new short-spacing created. However, any additional interference to this assignment may be

[1] The 3-dB beamwidth of typical outdoor TV receiving antennas is approximately 60°, although it will vary depending on frequency, antenna type, and other factors.

[2] It is noted that the Broadcaster's Caucus proposed DTV channel allotment plan, which utilizes a DTV allotment program similar to the Commission's, allots Channel 49 to another station for use at the Rehoboth tower site. This is further evidence that the use of Channel 49 at Rehoboth is a feasible alternative for WLNE-TV.

minimized through the use of a carefully engineered directional antenna.

Louis Robert du Treil Jr

Louis Robert du Treil, Jr.
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240 N. Washington Blvd., Ste. 700
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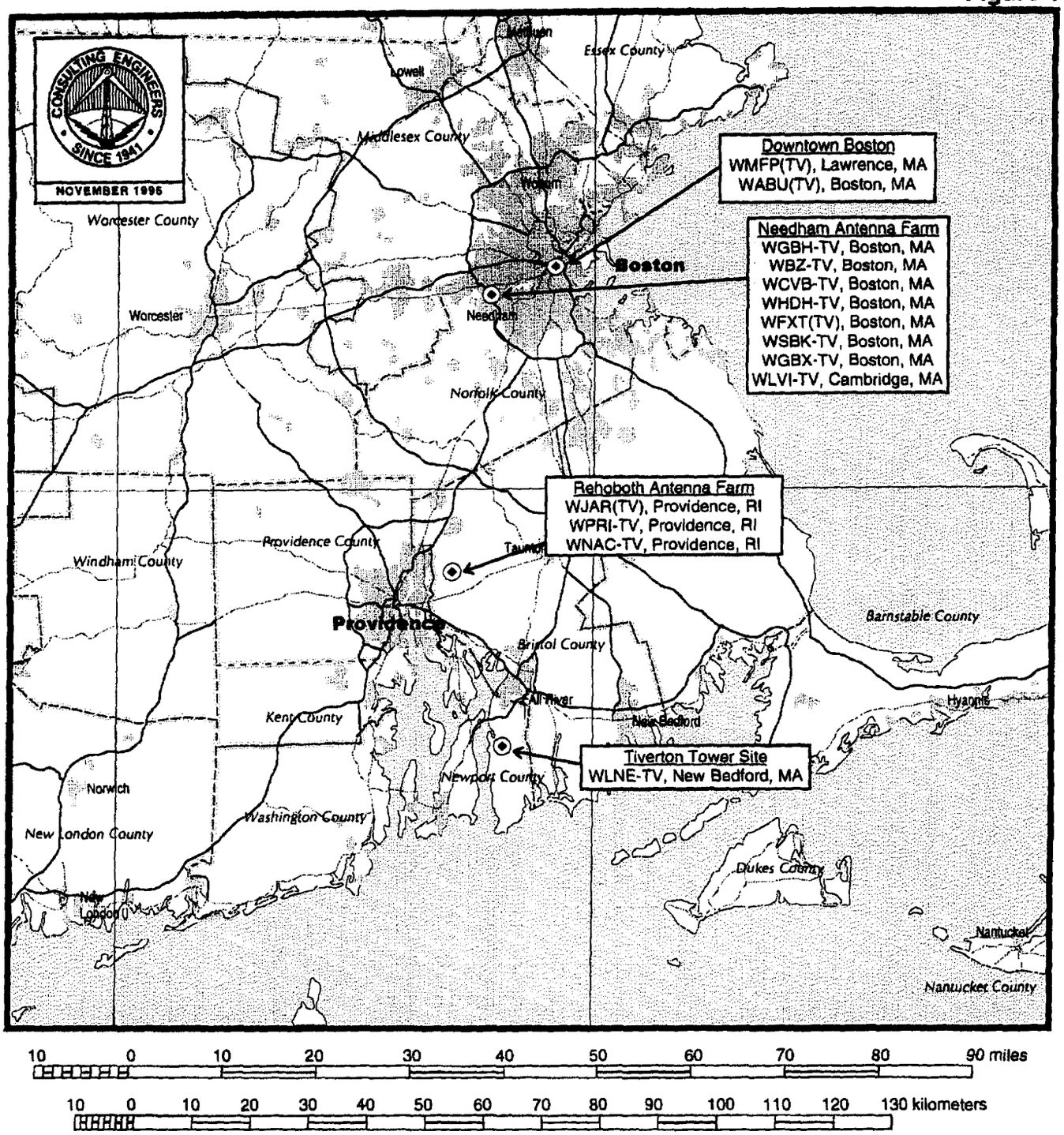
November 18, 1996

Figure 1



PRIMARY BROADCAST TV TRANSMITTER SITES IN PROVIDENCE-NEW BEDFORD-BOSTON AREA

FREEDOM COMMUNICATIONS, INC.

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

NOV-22-1996 15:10 du Treil,Lundin & Rackley

Figure 2

TECHNICAL STATEMENT
IN SUPPORT OF COMMENTS OF
FREEDOM COMMUNICATIONS, INC.
ON THE SIXTH FURTHER NOTICE
OF PROPOSED RULE MAKING

Channel 49 DTV Allocation Analysis for
Existing WLNE-TV Site and Rehoboth Antenna Farm Site

Channel/ Location	Relation	WLNE-TV Site (Tiverton)			Rehoboth "Antenna Farm"		
		Actual Distance (mi)	Required Distance (mi)	Comment	Actual Distance (mi)	Required Distance (mi)	Comment
35 (N) Lewiston-ME	+14	161.7	15-50	Clear	144.7	15-50	Clear
41 (N) Windsor-VT	+8	142.5	15-50	Clear	123.1	15-50	Clear
44 (N) Boston-MA	+5	49.3	15-50	Short	30.0	15-50	Short[1]
48 (N) Worcester-MA	+1	65.3	6-55	Clear	51.8	6-55	Short[2]
48 (D) Littleton-NH	+1	192.4	20-55	Clear	172.5	20-55	Clear
49 (N) Bridgeport-CT	0	105.9	135	Short	106.9	135	Short
49 (D) Amsterdam-NY	0	180.7	135	Clear	166.8	135	Clear
49 (N) Littleton-NH	0	192.4	135	Clear	172.5	135	Clear
50 (D) New London-CT	-1	53.8	20-55	Short	57.0	20-55	Clear
50 (N) Derry-NH	-1	79.3	6-55	Clear	59.5	6-55	Clear
53 (N) Norwich-CT	-4	51.0	15-50	Clear	52.0	15-50	Clear
56 (N) Cambridge-MA	-7	48.8	15-50	Short	29.6	15-50	Short[3]
64 (N) Providence-RI	-15	19.7	15-50	Short	0.9	15-50	Clear

[1] Although there is an apparent increase in the short-spacing, there is an estimated net decrease in predicted interference of approximately 380 square kilometers for the move from the Tiverton site to the Rehoboth site.
[2] While there would be a short-spacing created to the Channel 48 assignment at Worcester, additional interference to this assignment may be minimized through the use of a properly engineered directional antenna arrangement.
[3] Although there is an apparent increase in the short-spacing, there is an estimated net decrease in predicted interference of approximately 210 square kilometers for the move from the Tiverton site to the Rehoboth site.