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Federal Communications Commission
Office of the Secretary

BEFORE THE
Federal Communications Commission

WASHINGTON, D.C. 20554

ORIGINAL

OR

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

MM Docket No. 87-268
RM-5811

To: The Commission

REPLY COMMENTS
OF THE
LAND MOBILE COMMUNICATINS COUNCIL

The Land Mobile Communications Council ("LMCC") is pleased to submit these Reply Comments in response to the invitation of the Federal Communications Commission ("Commission") in the Notice of Inquiry in the above captioned proceeding, released August 20, 1987 ("Notice").

I. PRELIMINARY STATEMENT

1. LMCC acts on behalf of the vast majority of public safety, business, industrial, land transportation and common carrier land mobile radio users, as well as a diversity of land mobile service providers and equipment manufacturers. LMCC represents its membership before the Commission on a variety of communications issues. LMCC has participated

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extensively in this docket as well as in the related UHF Sharing proceeding, General Docket No. 85-172.

2. The Commission initiated this proceeding following the filing of a "Petition for Notice of Inquiry" by fifty-eight broadcast organizations, who argue that the Commission should consider the future of Advanced Television Technologies ("ATV") prior to allowing further sharing of the UHF broadcast spectrum by the Private Land Mobile Radio Services. LMCC submitted Comments in this proceeding on November 18, 1987, urging the Commission to require that any ATV systems be developed within the 6 MHz channel bandwidths already assigned to broadcasters. LMCC also noted in its Comments that it had previously filed with the Commission in the UHF Sharing proceeding extensive documentation concerning the projected spectrum requirements of the Private Land Mobile Radio Services.

3. A number of parties have submitted Comments which directly relate to LMCC's arguments. For this reason, LMCC is pleased to have the opportunity to respond to the issues raised by the various commenters in this proceeding.

II. REPLY COMMENTS

A. Any ATV System Adopted Should Use No More Than the Existing 6 MHz Channel Bandwidths

4. As LMCC noted in its Comments, it is possible and desirable from a policy perspective to require that ATV be developed within the existing 6 MHz channel assignments available to broadcasters. Several commenters concurred with LMCC's position. For example, the National Broadcasting Company ("NBC") indicated that it has developed a system called Advanced Compatible Television ("ACTV") which provides a vastly improved quality image along with an NTSC compatible signal --- all within a single, 6 MHz channel. See Comments of NBC, pp. 6-10, filed November 18, 1987.

5. Moreover, a number of commenters urged that ATV be accomplished within the 6 MHz channel presently assigned to broadcasters. Time Incorporated, for example, urges that the broadcast industry develop ATV within the current 6 MHz spectrum allocation plan. See Comments of Time Inc., p. 12, filed November 18, 1987. Further, Viacom also notes in its Comments that ATV could be "implemented without the allocation of massive amounts of additional bandwidth to

television broadcasting." Comments of Viacom International, Inc., p. 5, filed November 18, 1987.

6. The advantages of maintaining ATV within a conventional 6 MHz channel were detailed in LMCC's initial Comments. LMCC pointed out that ATV systems that would require auxiliary full or half channel bandwidths essentially would require broadcasters to install, maintain, and operate two transmitters. This type of ATV system may well necessitate additional expense for many broadcasters by requiring extra power consumption and separate antenna sites.

7. Several commenters echoed LMCC's concern that any ATV system must be practical to implement. Many commenters, for example, recognized that ATV must be compatible with the NTSC standard. See, e.g., Comments of New York Institute of Technology, p. 2, filed November 18, 1987 ("Any ATV system must be fully compatible with the NTSC standard"); Comments of Blonder Tongue Laboratories, p. 3, filed October 22, 1987 ("Compatibility with current NTSC receivers is of paramount importance, therefore the 6 MHz bandwidth should be retained"); and Comments of Viacom, p. 2, ("A broadcast ATV system must have absolute compatibility

with the approximately 150 million NTSC receivers presently in homes of the general public.").

8. Given the pressing need for efficient broadcast use of spectrum in light of the needs in other important sectors of the economy for mobile radio communications, ATV must be accomplished within the 6 MHz allocation plan. NBC has demonstrated that it is possible, and a host of commenters note that it is beneficial. As the National Telecommunications and Information Association notes:

One of the most pressing issues is whether the additional UHF spectrum now being sought by land mobile users should be allocated to them. ...[b]roadcasters must not be permitted speculatively to claim this spectrum indefinitely. Comments of NTIA, p. 7, filed November 18, 1987.

B. Broadcasters Must Act Responsibly in Developing the Technology to Efficiently Use Spectrum

9. The history of land mobile use of its frequencies is replete with examples of innovative technological advances allowing the land mobile community to decrease its channel bandwidth requirements. In light of these advances and in an age of spectrum scarcity, it is not unreasonable to require broadcasters to expend considerable effort in order to

utilize efficiently its spectrum allocation. The 6 MHz bandwidth which was established as a broadcasting standard more than 40 years ago consumes enough spectrum for tens of thousands of daily private land mobile dispatch transmissions. Since the original allocation to broadcasters, there has been absolutely no progress in reducing their fundamental spectrum requirements. For this reason, the issue of spectrum efficiency should be carefully examined in this proceeding and should be a primary consideration for the Commission in determining whether additional spectrum should be assigned for ATV.

10. Several commenters noted the importance of promoting spectrum efficiency. Scientific Atlanta notes, for instance, that "frequency spectrum is a limited resource and attempts should be made to develop HDTV formats that use spectrum efficiently." Comments of Scientific Atlanta, p. 1, filed November 18, 1987. Moreover, even those who strongly favor implementation of ATV technologies recognize that it would be irresponsible to hold this spectrum indefinitely. For example, Post-Newsweek states:

Post-Newsweek also recognizes that it would be irresponsible of the Commission to reserve indefinitely large amounts of spectrum on the mere possibility that some part of

this spectrum might at some far distant future time be of some indeterminate importance to broadcasting. Comments of Post-Newsweek Stations, p. 3, filed November 18, 1987.

11. As LMCC made clear in its initial Comments, the time for action is now. Innovative broadcasting companies, most notably NBC, already are well along their way in producing a quality ATV signal within the existing 6 MHz channels. As has been demonstrated in General Docket No. 85-172 and discussed below, land mobile users cannot afford further significant delay without facing serious shortfalls in spectrum availability in the near future. The American public can receive the benefits of both HDTV and UHF sharing if the broadcasting community commits to improving its signal quality within the current 6 MHz television bandwidth.

C. Land Mobile has Demonstrated The Need for Additional Spectrum

12. LMCC has demonstrated time and again the urgency of its request for access to additional spectrum through UHF sharing. See, e.g., Comments and Reply Comments, General Docket No. 85-172, LMCC and LMCC member associations. The frequencies in the Private Land Mobile Radio Services already are or soon will be completely "saturated" with mobile units in the major urban areas of this country. The extensive

application and licensing records which LMCC submitted in connection with its Comments in the "UHF Sharing" proceeding are clear evidence of congestion and overcrowding on these frequencies.

13. As LMCC noted in its Comments in this proceeding, the immediacy of the need for additional land mobile spectrum should not be overlooked by the Commission in its inquiry into future ATV systems. As LMCC pointed out, a minimum of five years is required to develop equipment to be used for channels shared with UHF-TV. Furthermore, equipment manufacturing cannot even begin until the conclusion of Docket No. 85-172 and any further proceedings required for the development of licensing and technical standards.

14. Balanced against this demonstrated need for more private land mobile spectrum is the request by the broadcasters to reserve UHF spectrum for possible ATV use. A number of commenters, however, have noted not only the desirability of limiting ATV to the current 6 MHz allocation as discussed above, but also the fact that land mobile communications needs generally should take precedence over developing ATV systems which require larger bandwidths. Rogers Cable Systems, for example, states:

The FCC is charged with the responsibility of spectrum management, and while the broadcast industry may be imminently affected by spectrum reassignment, there is a more fundamental issue governing potential spectrum reallocation. As a particular example, non-broadcast use of a portion of the UHF spectrum for mobile radio/telephone would presumably take precedence over this same spectrum for ATV transmission, given equal consumer market priority for the two services, because there will be a feasible closed circuit alternative for ATV transmission which will reach a projected 70% of the U.S. population via cable television at the expected time of introduction of an ATV service.... A similar alternative does not exist for mobile radio/telephone. Different spectrum bands can be traded but spectrum cannot be eliminated for mobile services. Comments of Rogers Cable Systems of America, Inc., pp. 4-5, filed November 18, 1987.

15. Those commenters who deny that land mobile requires additional spectrum have not fully considered the plight of public safety, industrial and commercial mobile radio users. For example, CBS notes in its Comments that it believes the needs for land mobile can be fulfilled within "presently allocated spectrum through implementation of existing new technologies." Comments of CBS, Inc., p. 53, filed November 18, 1987. This analysis, however, disregards the innovative history of land mobile in the United States. While land mobile has eagerly sought and adopted spectrum efficient technologies as they have become available, the broadcasting industry has continued to hold the 6 MHz channel bandwidths adopted more than 40 years ago. Although the

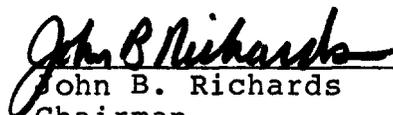
land mobile community appreciates any advice as to how it may use its spectrum allocation more efficiently, it is time that broadcasters turn their energies away from analyzing how the land mobile community could more efficiently use spectrum and toward an analysis of how broadcasters could develop and utilize their own spectrum efficient technologies. In the meantime, it has been convincingly demonstrated by LMCC and others that land mobile's need for additional spectrum is real and should be satisfied posthaste.

WHEREFORE, THE PREMISES CONSIDERED, the Land Mobile Communications Council urges the Commission to proceed in the manner consistent with the views expressed herein; and to move forward expeditiously with a decision in this and the UHF-TV Sharing proceeding.

Respectfully submitted,

THE LAND MOBILE COMMUNICATIONS
COUNCIL

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