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

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

REPLY COMMENTS OF  
THE EIA/ATV COMMITTEE

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## SUMMARY OF REPLY COMMENTS

The EIA/ATV Committee, comprising a broad spectrum of electronics enterprises with strong, but diverse, interests in the implementation of advanced television ("ATV") in the United States, welcomes the opportunity to participate in this stage of the rulemaking. In these reply comments, the EIA/ATV Committee urges the Commission to:

- o limit initial eligibility for ATV broadcast licenses to existing NTSC broadcasters, and remove this eligibility restriction once initial allotments are made;
- o assign the licenses for ATV channels separately from licenses for NTSC channels and prohibit these licenses from being separately transferred;
- o allot and assign ATV channels pursuant to the proposal set forth by the ATSC and the Joint Broadcasters in order to expedite channel allotment and commencement of service;
- o concentrate its energies on encouraging the prompt implementation of ATV throughout the country and defer most decisions relating to the termination of NTSC;
- o recognize the need for full documentation of the ATV system that is selected;
- o terminate NTSC only when there is no longer any substantial number of households which depend on NTSC for access to local broadcasting, and make this determination on a nationwide (not market-by-market) basis;
- o abandon consideration of requirements that broadcasters revert to their old NTSC channels after ATV service has become established and NTSC service has been discontinued;
- o defer final decisions regarding requirements for simulcasting and promote incentives to broadcasters to provide significant quantities of programming, including unique ATV programming, on their ATV channels;

- o continue to oversee patent licensing practices to ensure that they do not become a limiting factor in the implementation of ATV;
- o give the highest priority attention to a quality ATV standard for terrestrial broadcasting and cable, with appropriate consideration of the complex issues of compatibility, interoperability, and extensibility;
- o reject proposals which would entail unnecessary regulation of the design of consumer products;
- o rely on the Advisory Committee to determine the scope and timing of tests of the candidate ATV systems;
- o intensify frequency coordination efforts with Canada and Mexico;
- o seek to identify additional spectrum for broadcast auxiliary purposes; and
- o encourage prompt and widespread carriage of ATV programming by cable systems.

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REPLY COMMENTS OF  
THE EIA/ATV COMMITTEE

The EIA/ATV Committee hereby replies to the comments submitted on December 20, 1991, by numerous organizations and individuals in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.<sup>1</sup> Our Committee comprises a broad spectrum of electronics enterprises with strong, but diverse, interests in the implementation of advanced television ("ATV") in the United States. We are pleased to have the opportunity to present our consensus views on some of the important public policy issues associated with ATV.

The Notice and the responsive comments reflect substantial additional progress in the evolution of these public policies. The Commission -- through the Commissioners, the Commission's staff, and, by extension, the Advisory Committee on Advanced Television -- has shown

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1 6 FCC Rcd 7024 (1991) ("Notice").

foresight, prudence, and leadership in a variety of ways, and the Notice continues the progress by identifying various issues and options and public policy considerations. The first-round commentors deserve a large measure of credit for identifying additional topics and alternatives and presenting additional information and reasoning. All of this is a necessary precondition for continued success in producing the informed public policy judgments that must be made.

I. INTRODUCTION AND INTEREST OF EIA/ATV COMMITTEE

The EIA/ATV Committee is an organization sponsored by the Electronic Industries Association ("EIA") but not limited to EIA members. It seeks to promote dialogue and consensus among manufacturers of a wide variety of electronics equipment, as well as providers of video delivery services.

The EIA/ATV Committee comprises diverse organizations, including developers, manufacturers, sellers, and installers of equipment used in broadcast, cable television, satellite transmission and reception, telecommunications, and consumer electronics. Individual members of the Committee inevitably hold their own distinct views on the issues pending before the Commission. The Committee is limited to articulation of positions on which there is general agreement.

The Commission's own efforts reflect a strong appreciation of the importance of consensus. The Commission's use of notices of inquiry, tentative decisions, and notices of proposed rulemaking, coupled with a high-quality Advisory Committee process, has been calculated to ensure that relevant issues are identified and resolved in an orderly, logical, and expeditious sequence. Wisely, the Commission has helped to guide the evolution of ATV by involving all potentially interested organizations, encouraging early identification of issues and maximum debate on policy options, and nourishing the development of intra- and inter-industry consensus.

The EIA/ATV Committee supports these processes and commends the Commission for its active and prudent leadership. The following comments are offered in the hope of contributing constructively to what is already a very healthy discussion.

## II. DISCUSSION

The following comments address many, but by no means all, of the issues presented in the Notice and in the first-round comments. The organization of this reply is generally based on the structure of the Notice, with additional issues addressed at the end.

A. Eligibility, Allotment, and Assignment Issues

The first-round comments reflect broad support for the Commission's proposal to limit initial eligibility for ATV broadcast licenses to existing NTSC broadcasters, and to remove this eligibility restriction once initial allotments are made. The United States Advanced Television Systems Committee ("ATSC") finds this approach legally sustainable and logically well-grounded. ATSC at 2-3. The Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") declares this approach to be the most practical way in which to expedite the availability of ATV broadcasting. EIA/CEG at 5-6. An impressive array of 96 broadcast trade associations, station groups, and individual licensees (the "Joint Broadcasters") explains that limiting eligibility to existing broadcasters serves the objectives of expedient introduction of ATV and preservation of the universal availability of local broadcast service during the transition. Joint Broadcasters at 12-13. They also emphasize that ATV "is not being created as a new service but, rather, as a means by which to preserve and improve the existing local broadcast system." Id. at 12.

This appears to be an area as to which the conditions for a decision are met. Interested parties have had an opportunity to discuss this issue at length.<sup>2</sup> There

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<sup>2</sup> In addition to the present notice, the Commission's Tentative Decision of more than three years ago (Footnote 2 continued on next page)

is widespread agreement, and the issue is ripe for resolution. Accordingly, the EIA/ATV Committee urges the Commission to rule that this is the approach which will be followed as ATV channels are allotted and assigned.

Closely related are other issues relating to allotment and assignment of terrestrial broadcast licenses. There seems to be general agreement that the licenses for ATV channels should be issued separately from licenses for NTSC channels and that the licenses should not be allowed to be separately transferred. Again, the record seems to be sufficient to support a final decision on this matter.

The first-round comments reflect less consensus on the specific means by which the Commission should allot ATV channels to particular communities or assign specific channels to particular broadcasters, but this may be because the Notice itself did not include one particular approach. While the Notice (at ¶¶ 16-20) focused on the options of random channel pairings and of assignment on the basis of expressed preferences and timeliness of requests, the Joint Broadcasters (at 3-8) and the ATSC (at 4) present strong

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(Footnote 2 continued from previous page)  
included the finding that "the benefits of this technology can be realized by the public most quickly if existing broadcasters are permitted to implement ATV" and sought comments on the proposal that eligibility for ATV channels be limited only to broadcasters. Tentative Decision and Further Notice of Inquiry, 3 FCC Rcd 6520, 6521, 6537-38 (¶¶ 4, 136-38) (1988).

arguments for a channel pairing assignment plan based on the application of computer engineering to specific transmitter sites to optimize channel availability and coverage areas and to minimize interference.

The Committee believes that this approach is preferable to the other alternatives for the reasons given by the Joint Broadcasters. Ideally, this approach would allow broadcasters to use existing antenna sites and some existing equipment, which could save much of the time and expense of site acquisition, engineering, and new construction. It would also promote maximum coverage of ATV signals and reduce disruption of service areas. Most important, these consequences would promote early implementation of ATV broadcasting, which is important to maintain competitive parity between broadcast and other media, and which will increase the chances of success in meeting the Commission's goals.

The first-round comments contain considerable discussion of the time periods within which broadcasters must apply for ATV broadcast licenses and construct their ATV transmission facilities. The record contains strong support for the Commission's effort to push the transition along, and the EIA/ATV Committee strongly supports that objective. The transition must proceed as promptly as possible. To further that objective, it will be essential that the design of the selected system be fully documented,

so as to permit manufacture by others. Merrill Weiss at 5. Receiver and transmitter manufacturers are eager to build ATV equipment as soon as possible, but they can do so only when practical issues such as system documentation have been addressed and resolved.

Another point that warrants discussion here is the importance of moving forward with the resolution of channel allotment and assignment issues at the same time that ATV system selection processes are underway. As the Joint Broadcasters explain (at 2-3), unless principles of assigning HDTV channels are resolved when a broadcast ATV standard is adopted, there is a danger that broadcasters will be unfairly disadvantaged in comparison to competing media once an ATV system is selected. The Commission appears to be committed to a course of action that will resolve issues as they ripen, avoiding needless delays that could further compound the already difficult challenges of the transition.

The EIA/ATV Committee supports the broadcasters and the Commission on this important point; planning must proceed and service must be brought on-line as soon as is practicable. The Committee thus urges the Commission, the Advisory Committee, and other interested parties to continue computer analysis and related studies in the important areas of frequency allocation, area coverage, signal interference, and the use of existing tower sites in order to expedite channel allotment and commencement of service.

B. The Relationship Between NTSC and ATV

The first-round comments reveal a strong consensus that the Commission should continue to concentrate its energies on encouraging the prompt implementation of ATV and to defer most decisions relating to the termination of NTSC. The broadcasting, cable, satellite, telecommunications, and consumer electronics industries are fully engaged by the complicated tasks related to introducing ATV. Likewise, the decisions necessary to ensure a successful introduction of ATV require the Commission's full attention. Television is virtually unrivaled in its sweeping effects on the society as a whole. In light of the critical role played by television, the Commission should not run the risk of making any premature changes in the NTSC system on which the population currently relies so heavily for news, information, and entertainment.

The Commission should reject any precipitant proposals to set a termination date for the NTSC system while ATV is in its initial stages. It bears emphasis that ATV will take a considerable time to become established in the marketplace. Even after ATV broadcasting is widespread, and substantial numbers of consumers own ATV receivers, there will still remain a large embedded base of NTSC products, including not just television receivers but also VCRs. In this regard, it is important to remember that

consumer electronics products are expected to function over significant periods of time, that many consumers own multiple TVs and VCRs and cannot replace all of them when they acquire their first ATV receivers, and that consumers today use many TV receivers whose screen sizes (more often than not, 20" and below) are not optimal for display of ATV programming. See EIA/CEG at 9-10; Philips at 9-11; Zenith at 5-6. These and other factors will require the continuation of NTSC service for a considerable period of time.

There is widespread consensus -- supported by both policy and political considerations -- that consumers should not be deprived of NTSC service while any substantial number of households depend on NTSC for access to local broadcasting. See, e.g., Joint Broadcasters at 24-26. In this regard, the Commission should base its determination of when to turn off NTSC, not on the number of homes that have ATV equipment, but on the number of homes that still rely on service to NTSC equipment.<sup>3</sup> See Merrill Weiss at 9. Given the many reasons why NTSC service must be continued long after ATV service is begun, it is far too early for the Commission to try to plan for reallocation of the spectrum which is currently assigned to television broadcasting or to consider such issues as requiring broadcasters to transfer their ATV operations to their old NTSC channels after NTSC

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3 It is important to understand that the two categories are not mutually exclusive.

service is terminated. This latter proposal, if adopted, would result in considerable additional expense for broadcasters above and beyond that associated with the initial implementation of ATV.

The Commission should also reject proposals which call for a changeover from NTSC to ATV on a market-by-market basis. The markets for consumer electronics products and the unique television programming that will make ATV a commercial success are national, not regional or local. A decision to implement a piecemeal transition would severely complicate the task of introducing ATV products and programming. The phased-in approach would also be an administrative nightmare for equipment vendors, programmers, consumers, and the Commission. NTSC cannot be abandoned anytime soon, but when it is the decision should apply throughout the country.

The Committee recognizes that the resolution of this issue may be simplified by the emergence of low-cost converter devices that would enable NTSC TVs and VCRs to function properly with ATV broadcast signals. The first-round comments reflect differing views on this point, compare ATSC at 6 and Zenith at 6 with Philips at 13 n.11, but what is clear is that any such prediction is subject to substantial uncertainties in the present environment. At this point, the Commission cannot responsibly assume, in its present decisionmaking, that such devices will solve

transitional issues or enable the NTSC channels to be reassigned for other purposes.

Another emerging area of consensus relates to simulcasting. Most parties to address the issue appear to agree that broadcasters should be given a substantial measure of flexibility in making their ATV programming decisions. The availability of substantial quantities of ATV programming will be vital to generate consumer interest in ATV (and willingness to purchase ATV receivers), and broadcasting unique programming on the ATV channels may be essential to produce the necessary market stimulus. There is also agreement that, in the early years of the transition, the large installed base of NTSC receivers will protect the NTSC-dependent audience against exclusion from coverage of significant news, information, or entertainment programming. See Joint Broadcasters at 29; EIA/CEG at 12. The more difficult public policy choices will come later, as the ATV audience grows and the NTSC audience shrinks. See Westinghouse at 6.

Under all of these circumstances, the EIA/ATV Committee believes it prudent for the Commission to keep its options open. At least initially, there is no need to establish simulcasting requirements, which could undermine broadcasters' incentives to provide ATV programming which stimulates consumers' enthusiasm. The Commission can, however, and probably should, expressly reserve the right

to establish simulcasting requirements if that should later appear to be necessary to achieve the Commission's statutory duty to ensure that broadcasters serve the public. For the present, the Commission should focus on creating the conditions which generate consumer enthusiasm for ATV, while still protecting the precious NTSC environment against premature disruption.

C. Patents

The current Notice has served to stimulate useful discussion of patent issues. As several parties observe, the Commission's Advisory Committee has already taken a useful and important step by requiring that system proponents make a commitment to license relevant patents on reasonable and nondiscriminatory terms. Other parties, however, have identified additional complications which warrant consideration in the deliberative process.

As EIA/CEG (at 13) has explained, the proponent of the system which is selected may not hold all patents relevant to its system and may not be able to commit third parties to the licensing of their intellectual property. Moreover, the relevant patents may not even be identified when the system is selected. Philips at 15. Further, as Zenith notes (at 13), some patent applications are currently pending, others are in preparation, and the systems themselves are still being developed.

There is widespread agreement, in which the EIA/ATV Committee joins, that patent licensing practices should not become a barrier to the success of ATV. Patent considerations have arisen and been successfully overcome in many other standards-development situations, and there is every reason to hope that the same will be true in this instance by following the well-established patent policy of the American National Standards Institute. But the subject is an important one and continued oversight by the Commission may be helpful to ensure that this does not become a limiting factor in the implementation of ATV.

D. Compatibility and Other Topics

The compatibility, interoperability, and extensibility of the ATV system and the resulting standards are extremely important. This is verified by the large number of initial comments which stress this point.

Certainly the Commission's decisions must take into account the wide (and growing) variety of means by which consumers receive the signals which their equipment must decode and display. Cable plays an increasingly important role in video distribution, and over time terrestrial microwave (multichannel, multipoint distribution service), direct broadcast satellite, and telecommunications facilities will also become increasingly competitive in performing this function. The Commission has the jurisdictional

authority necessary to address compatibility and related concerns in these areas, and the EIA/ATV Committee supports the consideration of these issues in the selection of an ATV terrestrial broadcast system. Similarly, VCRs are used in a substantial majority of homes, and it is imperative that ATV signals be readily recordable by consumers at their homes.

The ATV system and resulting standards should also be as interoperable as possible with other media such as computers, multimedia equipment, and other devices, so long as these characteristics do not degrade the performance or capabilities of ATV transmissions over broadcast and cable. It is also important that consideration of interoperability and other topics not delay a decision on the selection of a system or retard the initiation of ATV service to consumers, nor should these factors be permitted to result in substantial additional costs to consumers for their consumer electronics equipment.

In a like manner, extensibility should also be given very serious consideration. A system that will serve the public and the affected industries well must have maximum growth potential for performance and service over a number of decades. Thus, the system must be forward-looking, with room for future improvement. As mentioned above, performance should not be degraded, and selection of a system and development of standards should not be delayed.

Most importantly, cost-effective design of ATV consumer electronics should not be hindered.

The EIA/ATV Committee strongly objects to proposals which would entail unnecessary regulation of the design of consumer products. Francis Fisher (at 2), contending that the new advanced television terminal will likely be digital and already contain substantial computing power, asserts that the Commission can reasonably impose "a requirement that it also be made to serve as a terminal to interactive visual information over a wired network." The Joint Broadcasters suggest (at 21) that, if mandatory construction deadlines are imposed on broadcasters, the Commission should also consider requiring ATV reception capability in TV receivers. The National Cable Television Association ("NCTA") suggests (at 6) that all ATV receivers be required to include electronic switching or input selector devices (in lieu of cable companies being required to retransmit local broadcasters' NTSC and ATV programming).

All of these proposals range well beyond the Commission's statutory authority and, in any event, involve direct regulation of a market whose products are testament to the virtues of these kinds of issues being resolved by robust marketplace competition, not unilateral government fiat. Imposing requirements on organizations which use public airwaves or enjoy government franchises is one thing; direct regulation of the competitive market for electronics

products is, as the Commission has traditionally recognized, quite another. It would not be appropriate for the Commission to mandate -- or to preclude<sup>4</sup> -- the use of any particular technology or feature in the equipment used by consumers to receive, record, or display ATV programming. Development of the ATV market entails many uncertainties which cannot all be foreseen, and the Commission should not erect unnecessary barriers to the evolution of the market.

The EIA/ATV Committee believes that the design of electronics products should be governed by manufacturers' ingenuity and market forces. This, not government requirements for specific features or capabilities, is the way to ensure that consumers enjoy maximum benefits in terms of innovative features and cost-effective design.

E. Testing and Timing of Decision

Several parties discuss the importance of conducting field tests as well as laboratory tests and of including satellite and cable media as well as terrestrial broadcasting. See, e.g., Comsat Video at 3; NCTA at 10-11. The Advisory Committee already has a test plan which the

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4 The comments of EIA/CEG suggest (at 14) that the Commission should "try to reduce situations that require the use of converter boxes, which might hinder the use of VCRs and desirable television receiver features such as picture-in-picture and necessitate additional wiring." We do not read these comments to suggest that the Commission should prohibit the use of converter boxes, and we would oppose any such preclusive action by the Commission.

EIA/ATV Committee supports. Revisions to the test plan have recently been adopted by the Advisory Committee, and the EIA/ATV Committee sees no need for the Commission to address that issue in this rulemaking.

There must, however, be limits on the testing. A decision cannot be delayed indefinitely. The Commission cannot reasonably be expected to wait, as one party suggests, until American consumers are given an opportunity to see for themselves, and to comment upon, all of the proposed ATV systems, operating in over-the-air 6 MHz transmissions. See Future Images at 4 n.5. The Commission should not necessarily let its selection of a broadcast system be dictated by a test process that gives equal weight to performance in the broadcasting, cable, direct broadcast satellite, telephone, and "package media" environments. See Andrew Lippmann at 7.

The processes established by the Commission have stimulated the development of ATV technology and set the stage for timely public policy decisions. The Commission should continue to keep the pressure on. Since the transition itself will take a considerable period, the Commission should continue to strive for a prompt selection of an ATV broadcast system and to facilitate the early introduction of ATV broadcasting throughout the Nation.

F. Other Issues

Above and beyond the foregoing, the first-round comments address additional issues that were not discussed in the Notice. Some of them clearly warrant the Commission's immediate attention.

Among these is the need for coordination with Canada and Mexico, absent which many broadcasters will be limited in their ability to deploy ATV broadcast technologies. Joint Broadcasters at 32-33. The EIA/ATV Committee assumes that the Commission has already begun the necessary inter-governmental discussions, but these should be intensified if necessary to ensure that significant parts of the country are not held back from access to ATV programming. Prompt, nationwide deployment should be the goal.

The comments also include sharply contrasting views concerning the wisdom and feasibility of establishing "must carry" requirements for cable systems. Compare Joint Broadcasters at 39-41 with NCTA at 4-6. We firmly believe that carriage of ATV signals over cable facilities is highly important, as over three-fifths of the public depends on cable for access to video programming. Service to the public should be the overriding consideration in the Commission's deliberations on this issue.

On yet another topic, our Committee strongly agrees with the Joint Broadcasters (at 35-36) that the Commission should not foreclose the possibility of

allocating additional spectrum for broadcast auxiliary purposes. To the contrary, to the extent that additional spectrum may be needed, it is entirely appropriate for the Commission to seek to identify other frequencies which may be underutilized.

NCTA's initial comments (at 9-10) suggest that more consideration should be given to encryption issues. Specifically, NCTA states that ATV proponents may be neglecting to provide bandwidth for carrying addressing codes and commands to authorize or deauthorize reception and proposes that encryption capability be included among the attributes of the ATV standard. As noted above, the EIA/ATV Committee believes that carriage by cable is vital to the success of ATV. As a practical matter, cable's importance in video distribution is such that any ATV system selected for use in this country most certainly will contain whatever features are necessary for transmission over cable systems.

### III. CONCLUSION

The EIA/ATV Committee applauds the Commission for its continued leadership in building consensus on ATV issues. The strategy of "narrowing options" as issues ripen is serving interested parties well.

We welcome this opportunity to share our views with the Commission. In this manner, and through its other activities, the EIA/ATV Committee will continue to seek to participate constructively in the deliberative process.

Respectfully submitted,



EIA/ATV Committee

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