

539

**AN FCC PERSPECTIVE**  
**By COMMISSIONER JAMES H. QUELLO**  
**HDTV UPDATE: NARROWING THE CHOICES**  
**Washington, D.C.**  
**September 7, 1988**

We have come a long way in the process of developing advanced television systems in a rather short time. Just a year ago last March the Commission was about to reallocate UHF broadcast spectrum in major areas to the private land mobile radio services. Last week the Commission made a tentative decision that non-licensed broadcast spectrum should be allocated to existing broadcasters for the purpose of providing advanced television service. I consider this to be quite a turn around and I am pleased to have played a role in that process.

Advanced television service is the first major TV breakthrough since the advent of color television. The U.S., when compared to Japan and Western Europe, is playing a catchup game. While Europe and Japan pursue satellite delivery of high definition television service, the U.S. is devoting its efforts to the development of terrestrially delivered, NTSC compatible broadcast technology. We are also lagging behind our foreign industrialized counterparts in the money spent to develop HDTV technology. Nevertheless, we are making progress and the American consumers will eventually enjoy the benefits of ATV technology.

The FCC must do its part to assure that ATV is made available in a timely manner. I am pleased that the Commission encouraged the development of terrestrial ATV broadcasting and especially pleased we held off on the decision to reallocate broadcast spectrum to the private land mobile radio services. I compliment Chairman Patrick on his decision to create the FCC's Advisory Committee on Advanced Television Service chaired by my good friend, Dick Wiley. The greatest praise must go to all those who work so diligently on the Advisory Committee and in the research labs. What the industry itself develops will to a large degree determine the Commission's role in the implementation of ATV service.

Just last week the Commission made some tentative decisions based on the information the Advisory Committee and others provided. I supported most of those decisions. We concluded that providing for terrestrial use of ATV technology would benefit the public and that the benefits of this technology can be realized most quickly if existing broadcasters are permitted to implement ATV service. We concluded that service to viewers using NTSC receivers must be continued irrespective of the actual manner by which ATV services will be delivered. Furthermore, we are predisposed to require ATV systems to be NTSC compatible. Finally, we concluded that it is in the public interest not to retard the development of ATV technology in other services and non-broadcast media.

As you know, I parted company with my colleagues on one fundamental tentative decision and on several other aspects of the Notice. The majority concluded that any spectrum capacity needed for broadcast ATV systems will be obtained from the spectrum now allocated to broadcast television. While I hope that ATV systems can be accommodated within existing broadcast allocations, I believe that it is premature to lock out other options. Close attention should be given to the information contained in Table 2 of the Notice. In the scenario where each broadcaster would be allocated an additional 3 MHz of spectrum within their current band of operation, there is not enough broadcast spectrum in the top 10 markets to give additional ATV spectrum to each existing licensee. Therefore, by reaching this tentative conclusion the majority may be creating two classes of broadcasters -- the HDTV haves and the have nots. We should not, at this time, pre-judge or preempt the Advisory Committee's requirements for spectrum.

The Advisory Committee has not ruled out the need for additional spectrum and neither should the Commission. A closed circuit item in this week's Broadcasting states:

"FCC may have given up on 9 mhz, one-channel systems for HDTV but broadcast industry's Advanced Television Test Center hasn't. Nor has it given up hope for utilizing spectrum above 1 ghz. In meeting just after FCC's issuance of spectrum and compatibility rulings last Thursday, ATTC board voted to hold to original plans for propagation tests.

The Board found FCC's decision to eliminate consideration of such systems 'premature' because tests have not yet been completed to prove that augmentation channel systems will work, said Peter Fannon, ATTC executive director. Propagation tests will last until spring of 1989, he estimated." (This item coincides with my brief press statement.)

Moreover, the data used to develop the proposed scenarios for allocating additional spectrum to broadcasters are based on assumptions whose validity should be tested once we actually have ATV technology available for over-the-air tests. The proposed additional spectrum scenarios are hypothetical and I cannot endorse a tentative decision on the spectrum need for ATV based on such hypothetical data (e.g., computer simulation of adjacent and co-channel restrictions). Rather than going through several rule making proceedings based on hypothetical spectrum needs for ATV, I would have preferred proceedings based on actual real-world data and need. By making "tentative" spectrum allocation issues now, we are restricting the workings of the technology development marketplace.

I dissented to several other aspects of the Notice. For example, I believe that some of the issues such as flexible use of spectrum had already been addressed and rejected by a vast majority of the commenters responding to the First Notice. Yet, by inserting some qualifications such as "on an interim basis" and "on a secondary basis," the issue of flexible use is raised again. Exactly what does an interim basis mean -- possibly 2 or 3 license renewal periods? Also, I can't see how flexible use is pertinent to the development of HDTV technology

at this time. The flexible use proposal raises real Ashbacker<sup>1</sup> legal concerns. The Commission is not only proposing to allocate additional spectrum to broadcasters, but also allowing broadcasters to use the additional spectrum for non-broadcast uses. Quite frankly, I do not see the legal battles over the Ashbacker issue worth the effort to use the additional spectrum for non-broadcast services. The majority's reference to the current policy of allowing licensees to use the sidebands of their broadcast signal for non-broadcast services seems irrelevant. Under the current policy we have not allocated additional spectrum to broadcast licensees, since current licensees are using transmission characteristics of their existing 6 Mhz allocation.

The majority failed to make a tentative conclusion regarding standards. I would have preferred one. I believe the Commission should play a role in establishing an ATV standard either by adopting an agreed upon industry standard or selecting one of its own. As the FCC Notice now reads, one option for the Commission in the standards area is to do nothing and let an industry de facto standard emerge. Standards must be established if an ATV industry and service is to develop.

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<sup>1</sup>Ashbacker Radio Corp. v. FCC, 326 U.S. 327 (1945). The granting of an application for a broadcast license that is mutually exclusive with another, without considering the merits of the other application at the same time, deprives the other of the opportunity for a hearing as guaranteed by Section 309 of the Act.

We should have learned our lessons from the confusion and uncertainty of the marketplace approach to AM stereo. It resulted in delay of AM stereo service to the consumer.

My most significant objection to the Notice focuses on the allotment and post allotment adjustment issues. Again, it is too early to develop allotment schemes for ATV service. The Notice attempts to resolve detailed matters of ATV service before we actually resolve the more critical spectrum issues. Here we see the emergence of private parties negotiating acceptable levels of interference or reduced service areas. If this sounds familiar, you are correct in your thinking. Recently, negotiated levels of interference have appeared in other Commission items (AM and FM proceedings). Why attempt such philosophical marketplace ideology here and now? Negotiated interference rights should only be considered for the most essential and exceptional reasons after all other possibilities have been exhausted. Furthermore, one of the allotment schemes in our Notice -- 6 MHz non-compatible ATV service -- again raises complicating important Ashbacker legal concerns.

In the context of my Michigan heritage, I would draw a parallel between what the Commission is doing with its Tentative Decisions and Further Notice of Inquiry and the development of a new automobile. We have come to some constructive agreement on the basic concepts of the new car.

However, the Notice would focus immediately on wheel size and optional accessories rather than the more crucial engine and drive train. Its time to focus attention on the basic development of ATV technology rather than on such accessories as flexible use and allotment plans. Placing greater attention on these accessories will divert resources and add extraneous costs to those filing comments in this proceeding.

In the best of all possible worlds I would like to see a 6 MHz NTSC compatible ATV system developed by Americans, manufactured in America, and employing American workers. This may be an ideal beyond practical reach, but the Advisory Committee should explore and exhaust every possibility. I'm also afraid that we are not at the point yet of making well reasoned spectrum decisions and allotment plans for ATV systems. We must first develop and test ATV systems in a real broadcast environment and then determine the issues of spectrum and standards.

We can all be comforted by the fact that we have an expert ATV Advisory Committee representing the very best technical, legal and administrative minds diligently seeking to provide America with the best high resolution, high definition TV service. I repeat, we must give them time to develop and actually test ATV systems before the FCC determines conclusive allotment plans.

The Advisory Committee certainly merits the support it is receiving from Congress, the FCC and key industry organizations. I hope the parameters outlined by our recent FCC action will provide a useful preliminary focus without restricting creative technical developments.



HDTV -- AN FCC PERSPECTIVE SENT TO:

The Hon. Fritz Hollings

The Hon. John C. Danforth

The Hon. Thomas Bliley

The Hon. John D. Dingell

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Ralph Everett

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Terry Haines

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The Hon. Daniel Inouye

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