

Before the  
Federal Communications Commission  
Washington, D.C. 20554

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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 Scientific-Atlanta

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Scientific-Atlanta is the world leader in satellite networking and many aspects of cable television equipment manufacturing and HDTV. Scientific-Atlanta has been involved in a number of "firsts" in HDTV satellite transmission, including the first HDTV satellite network in North America and the first intercontinental, commercial application of HDTV.

Scientific-Atlanta has also been a leader in the video broadcasting market and in digital communications technology.

The Commission and the Advisory Committee should continue to seek an ATV standard that is interoperable and compatible with the four major television delivery systems: over-the-air broadcast, cable, satellite and VCRs. In its recently announced collaboration with AT&T and Zenith, Scientific-Atlanta has offered end-to-end HDTV compatibility in digital compression technology bit rate, modulation and forward error correction.

Satellite transmission is the first step in the key delivery mechanisms to the consumer:

- Broadcasters rely on satellite delivery to their affiliates.
- Cable operators and programmers rely on satellite delivery to the cable headend.
- C-band, Ku-band and DBS rely on satellite delivery direct to the home.

For this reason, there must be satellite testing and evaluation of any ATV system as a required part of the Advisory Committee process. There are issues such as error correction and transponder characteristics which must be monitored closely in the development of any Advanced Television System to ensure compatibility and efficiency in the delivery of ATV. Satellite performance will depend on both the Quadrature Phase Shift Keying (QPSK) or modulation technique and the forward error correction (FEC) algorithm which is chosen.

Some commenters have raised concerns regarding possible requirements for cable converter boxes and additional wiring in an ATV system. Ideally, the best system would have a transparent consumer interface. Yet, while the consumer has had some problems adapting to the cable converter box, this device is largely responsible for many of the programming and technological advances in

the cable industry - the ability to add more channels when the television set manufacturers were unable to, the capacity for stereo audio and digital audio; the use of remote controls and the initiation of pay per view television. Since we do not live in an ideal world, the cable converter box may play a crucial role in future technologies, including advanced (high definition) television, digital compression, and as yet unforeseen advances.

*Bill Lybby*