



October 28, 1996

STATEMENT

Bob Iger, President and CEO, ABC
Bob Wright, President and CEO, NBC

We join in urging the FCC to adopt, without further delay, the ATSC industry-approved standard for digital television. The ATSC standard will put America's television industry at the forefront of the digital television revolution with the world's best system. Indeed, broadcasters are committed and prepared to provide high-quality digital television programming to consumers.

But time is running out. After hundreds of millions of dollars and nearly a decade of development, testing and research, representatives of the broadcast, cable and computer industries reached agreement on a standard and, without dissent, recommended its adoption to the FCC. But that standard is now in jeopardy due to eleventh-hour objections by a few members of the computer industry urging reconsideration of issues that were fully debated and resolved -- with their involvement -- during the nine-year consensus-setting process. In fact, the proposed standard is flexible enough to accommodate computer technology, and it further encourages innovation.

The FCC must adopt a uniform broadcast standard for digital television *now*. Delay here is the enemy of progress. Equipment cannot be built, nor stations begin to buy the vast amount of equipment necessary for digital transmission, unless and until they know what the standard will be. The public too will need such certainty so that all sets in every home in America will be capable of receiving all channels. In short, sets bought in New York will have to work in Seattle. Only then will consumers be able to benefit from a host of innovative digital program services and enhancements that will be available free, universally and over the air.

We don't object to continued discussions as long as those discussions don't engender further delay. Fast action is simply imperative to enable broadcasters to begin the important task of bringing the benefits of digital television to the American public.

CBS

CBS Inc., 51 West 52 Street
New York, New York 10019-6188
(212) 975-6050

Peter A. Lund
President and Chief Executive Officer

Dear Mr. Chairman:

CBS emphatically stands behind the ATSC industry-approved digital television standard. Having answered the call of your predecessors and contributed substantial funds and expertise to this consensus driven advanced television development process over the past decade, we are convinced the ATSC approved standard is a triumph of American ingenuity. Its adoption will help put the American public on the best path to digital television whose distribution is free and universal, and where television sets remain comparatively inexpensive and long lasting.

While the argument has been made that standards can stunt innovation, I believe just the opposite is true in this case. As soon as a standard is set, the best and the brightest can begin to develop a host of products designed to that standard. Moreover, the flexibility and headroom built into the ATSC standard can accommodate all manner of innovation for the foreseeable future.

Perhaps some critics of the ATSC standard either do not fully understand its capabilities, or they have motives other than those presently stated. CBS will be happy to participate in discussions to reassure representatives of other industries about the standard or to accommodate legitimate concerns they may have. But I hope the FCC will take into account that some of the critics may fall into the latter category whose only aim is further delay in adopting any standard other than one that suits their narrow business plans. Should that happen, American viewers who have to upgrade their television sets every few years are likely to wonder how that aspect of the public's interest was determined.

To avoid further unnecessary delay, I hope the FCC will make clear that it intends to act on the standard in the very near future, certainly before year's end. In return, that should allow parties of good faith to resolve any remaining questions in a timely fashion. Thank you.

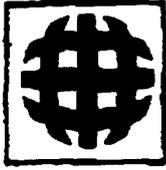
Sincerely,



The Honorable Reed Hundt, Chairman
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

October 28, 1996

cc: The Honorable James Quello
The Honorable Susan Ness
The Honorable Rachelle Chong



News Corporation

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RUPERT MURDOCK, A.C.
CHAIRMAN AND CHIEF EXECUTIVE

October 25, 1996

The Honorable Susan Ness
Chairman, Federal Communications Commission
1919 M Street, NW, Room 832
Washington, DC 20554

Dear Commissioner Ness:

Because of a long-standing commitment, I am unable to join my broadcast colleagues in meeting with you today. But, I join my colleagues in urging the Federal Communications Commission to move forward as expeditiously as possible in adopting a standard for digital television.

The Grand Alliance Standard was developed after years of consultation between broadcasters and various other industry groups including the cable and computer industries. No compromise can satisfy all of the concerns of all parties; that is the nature of a compromise. While we are willing to continue discussing the concerns of all interested parties, at some point in the very near future a standard must be adopted. We appreciate your continued efforts to promote inter-industry discussion on the digital standard. Your willingness to recommend a schedule which would result in a decision by Thanksgiving is especially important. Unless the Commission shows a willingness to impose a deadline, discussions may drag on endlessly. While we hope all sides share the same goal of rapid a resolution of the standard, some parties to the discussion may have less incentive to reach a conclusion than we might wish.

We greatly appreciate your efforts to bring broadcasters and, most importantly, our viewers the improvements of digital technology. With thanks for your consideration,

Sincerely,

Rupert Murdoch

Creating an Industry Standard for Digital Television (DTV) A Chronology

The creation and development of a broadcast industry standard for advanced or digital television began nearly a decade ago. When this process started, there was a very real prospect the Japanese would develop their standard first and preempt American technology.

Rather than have the U.S. government take on this massive and costly effort, however, private industry took the lead. The standard that now awaits FCC adoption is the culmination of hundreds of millions of dollars of private investment and the merging of the best aspects of numerous proposals, including input from both the computer and cable industries.

Here is a brief history of how this standard was created:

1987 **FCC INQUIRY.** In February, broadcasters asked that the FCC begin an inquiry into the development of advanced television. Later that year, the Commission began its inquiry into advanced television, and in November, created an FCC Advisory Committee on advanced television to begin the actual process of seeking advanced television options for broadcasting.

That advisory committee and its subcommittees included over 1,000 industry experts, representing not only broadcasters, but also computer, motion picture, cable, satellite and telecommunications industries, as well as broadcast equipment and consumer electronics manufacturers, and members of academia.

As a result of that process, 23 different proposals were introduced, all using analog technology (such as is used in current TVs) or some hybrid -- digital/analog -- approach.

1990 **FIRST ALL-DIGITAL SYSTEM.** General Instrument introduced an all-digital transmission system -- something previously thought unfeasible. Three of the remaining proponents switched to digital technology, and they, along with a Japanese analog system, were then subjected to exhaustive laboratory testing by the Advanced Television Test Center and elsewhere. All the testing was designed and overseen by the Advisory Committee. Over the next three years, these tests demonstrated the superiority of digital technology, putting the American entrants into the lead in the race for the future of television.

1993 THE GRAND ALLIANCE. Based on testing and proposed enhancements, the four digital proponents decided to merge their proposals into one single design -- the so-called "Grand Alliance." This product represented the best of each of the four original designs, plus substantial improvements requested by the Advisory Committee, thus creating the most interoperable broadcast TV system ever devised. *Without a single dissenting vote*, the Advisory Committee authorized moving forward.

The final decision includes a number of modifications *including changes made at the suggestion of the computer industry* representatives involved with the Advisory Committee. A panel of experts to ensure interoperability included membership from such computer companies and interests as Apple, Compaq, Digital Equipment Corp., Hewlett-Packard, IBM, the Interactive Multimedia Association, Microsoft, Silicon Graphics, Sun Microsystems and Toshiba.

1995 SUBMISSION TO THE FCC. Testing of the Grand Alliance system -- including field tests -- is completed. A final recommendation to the FCC to adopt the standard based on the Grand Alliance technology provides industry and consumers assurance that digital tv will be interoperable with other devices (such as computers, VCRs, camcorders, cable set-top boxes, etc.), and that signals will be viewable by anyone with a digital or analog receiver.

1996 COMPUTER COMPANY OPPOSITION AND FCC DELAY. On the eve of the FCC's recommendation for final approval of the standard, a handful of computer interests raise questions and ask that the FCC delay its adoption. Despite the fact that the ATSC standard is the result of combining the "best of the best" of numerous proposals and accommodates the needs of the computer industry, the FCC has not adopted it after 11 months.

ATSC Standard vs. Computer Companies' Scheme A Comparison

	<u>ATSC UNIVERSAL DIGITAL TELEVISION STANDARD</u>	<u>COMPUTER COMPANIES' TELEVISION PROPOSAL</u>
ORIGIN	Developed at the urging of the FCC and worthy of adoption on its merits.	Attempts to redefine the standard at the last minute.
PROCESS	Developed in nine-year open process involving broadcasters, Hollywood, cable, computer interests and receiver manufacturers.	An 11th-hour "quickie" plan cobbled together without participation of broadcasters, cable or receiver manufacturers.
PARTICIPANTS	Represents a consensus of the best minds from the TV broadcast community, cable service providers, cable hardware developers, TV receiver and production equipment manufacturers, the computer industry and academia.	Developed by a handful of computer companies and some Hollywood groups. No evidence of consensus for this plan, even within the computer industry.
RESULTS	Primary goal is to ensure the highest quality, lowest-cost service and programming available to all U.S. consumers via free over-the-air television.	Inflexible system that is more expensive to the consumer, and serves the interests of computer manufacturers and fee-based computer services.
TESTING	Fully developed, documented, and lab- and field-tested. It works.	Untried, untested.
IMPLEMENTATION	Manufacturers are primed for production as soon as the standard is adopted by the FCC, thereby ensuring the quickest return of analog TV spectrum to the government.	Is years away from being potentially considered for adoption, because it has not been tested and evaluated. This delay would put broadcasters behind international competitors in digital video transmission. Any delay represents a threat to the success of a U.S.-developed digital broadcast system.
FORMAT	Supports both interlaced and progressive scanning.	Only supports the progressive format.
STANDARDS	Works with MPEG, ITU and basis for DAVIC 1.2 digital video standards.	Doesn't work with any existing standard.

	<u>ATSC UNIVERSAL DIGITAL TELEVISION STANDARD</u>	<u>COMPUTER COMPANIES' TELEVISION PROPOSAL</u>
INTEROPERABILITY	Ensures great forward and backward compatibility and interoperability with computers and other telecommunications.	Compatible with future productions based on its standard; designed exclusively for computers. Makes no attempt to provide interoperability with other video technology.
COST	Full product line of set-top boxes available in \$349-\$700 range (retail). All HDTV compatible.	SDTV-only set-top box available, estimated at \$649 (retail).
HDTV	Provides for both standard definition TV and HDTV, allowing for improved service to consumers, as well as continued use of existing equipment. Allows quick saturation of HDTV market with receivers that will drop rapidly in price as mass availability occurs.	Has no proven capability or even a viable concept for incorporating HDTV. Similar approach in Europe and elsewhere have been abandoned as too complex and technically inefficient.
COMPATIBILITY	This system accommodates, without signal degradation, all other digital television systems. These systems use interlaced scanning exclusively. These include satellite, cable, multichannel multipoint distribution systems, digital video discs and telco video.	This progressive-only format can significantly reduce the quality and/or multiprogram availability of interlaced program services (cable, satellite, teleco, and home playback devices).
FLEXIBILITY	Fully flexible to most transmission and production systems, and to archived video and film material. Handles three basic formats (480-720-1080 lines) plus ancillary data capacity.	One basic format (480 lines) implemented immediately. Everything else, including video data transmission, has to battle for inclusion at some future unspecified date.

**INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS
AFL-CIO**

**COMMUNICATIONS WORKERS OF AMERICA/NABET
AFL-CIO**

**INTERNATIONAL UNION OF ELECTRONIC, ELECTRICAL,
SALARIED, MACHINE AND FURNITURE WORKERS
AFL-CIO**

October 8, 1996

The Honorable Albert Gore, Jr.
Vice President of the United States
Old Executive Office Building
Washington, D.C. 20501

Dear Mr. Vice President:

Our three unions, the IBEW, CWA and IUE, have been closely involved in the development of, and now debate over, digital television and have a tremendous stake in the outcome. In addition, the AFL-CIO is on record supporting the proposed Grand Alliance transmission standard proposed for adoption by the FCC (copy enclosed).

As you know, tens of thousands of our members manufacture the finest television receivers in the world at numerous assembly and component facilities throughout the United States, including the Philips plant in Greenville, Tennessee (the second largest television plant in the world).

Two of our major employers, RCA and Philips, have pledged in writing to manufacture HDTV receivers in the U.S. if the FCC sets a transmission standard.

Our members also work by the thousands in the free broadcasting industry. They have an equally large stake in the debate over transmission standards and channel allocation of new broadcast channels for digital television, including HDTV. It is estimated that as stations convert to digital, billions of dollars will be invested by manufacturers and broadcasters which will create tens of thousands of new "high wage - high tech" quality jobs beginning in 1997!

Mr. Vice President, we applaud your advocacy of government's limited role in the free market; government is occasionally needed to set the framework so that innovation can occur within the private sector. From such action, investors get the confidence they need to invest, so that, in turn, consumers can enjoy better products at reasonable prices and new jobs can be created. We believe that the matter of digital HDTV transmission standards fits squarely within this philosophical context and that the FCC should adopt the full standard and mandate its exclusive use by broadcasters.

Over nine years ago, a Republican-led FCC challenged our private sector to invent an advanced television broadcasting system that would be superior to the Japanese satellite-only, analog HDTV system. Since then, four FCC Chairmen from both political parties have fostered this design, guided and overseen its development, and anticipated its adoption as the new broadcast standard for America. What ensued was an unprecedented peacetime effort by our finest scientists and business people in the consumer electronics, broadcasting, cable, production and computer industries to author a transmission standard for HDTV.

The resulting Grand Alliance system proved that the ATSC digital television standard unquestionably represents the finest digital video technology on earth and will provide consumers with universal access to the digital age, boosting fulfillment of the promise of the National Information Infrastructure and, yes, the Internet! The ATSC standard provides for full interoperability with computers and information industry transmission standards and leaves enormous room for future innovation and augmentation by all involved in the future television business. This standard will easily allow software providers to offer a dazzling array of future products and services to the American consumer.

In short, the proposed ATSC Standard is technologically superior to any other in the world, computer-friendly and flexible to accommodate future innovation.

We believe very strongly that the FCC should approve this ATSC Standard now. Frankly, the delays already incurred since this standard was formally recommended last November by the FCC Advisory Committee have already cost American business both credibility and economic opportunity. We want America to retain its technological leadership in digital video technology and as well as valuable export opportunities. As you know, Mr. Vice President, Canada and South America are ready to adopt the ATSC Standard pending U.S. government adoption. That could effectively guarantee that the U.S. standard could become a world standard which would be fully competitive with any alternatives now under development elsewhere. This would be a huge accomplishment that would sustain our technological pre-eminence, harness further creative power in the U.S. and create untold export capabilities for manufacturing and software products and services. The alternative would be to suffer the potential embarrassment of adopting, de facto or de jure, a lesser digital standard developed elsewhere. And, of course, many thousands of job opportunities would be forfeited.

If the FCC were to choose not to adopt this standard, the broadcasting medium on which most Americans rely for information, education, and entertainment would be dealt a devastating setback and all Americans would suffer from the inevitable diminution of a key

media competitor mired in the analog world. Our country would fall behind in the larger digital world. Many thousands of job opportunities will be lost and the consumer will lose the full benefits of the new digital television.

Mr. Vice President, we urge the Administration to press for adoption of the full ATSC Standard as soon as possible. We would be pleased to meet with you to discuss this important public policy matter.

Sincerely yours,


J. Barry


Morton Bahr


William Bywater

cc: Chairman Reed Hundt
Commissioner Quello
Commissioner Chong
Commissioner Ness
John J. Sweeney, President, AFL-CIO

Why the FCC Must Adopt a Digital Broadcast Standard

For more than 50 years the U.S. television industry has operated on a single, industry-developed and government-adopted broadcast transmission standard. This feature has enabled competition and guaranteed the availability of free, over-the-air television to every American.

At the request of the FCC, the affected industries have again devised a new, single standard that will take America forward into the digital age of over-the-air high definition television (HDTV), and with it a host of new information services and an entirely new world of communications possibilities. Broadcasters, manufacturers, workers, and consumers are ready to go forward -- but the leap into digital tv cannot happen until the FCC adopts the industry-consensus standard that will move the country together. Here's why:

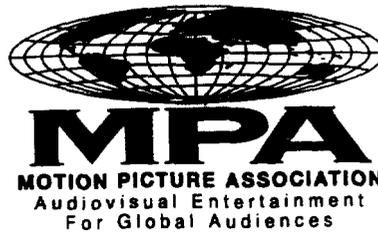
- **Universality.** Unlike pay services such as direct broadcast satellites, cable and on-line computers, television broadcasting at its core is a universal, open and free medium accessible to virtually everyone in America. Only a single, universal transmission standard guarantees that every American will continue to have access to all free, over-the-air television signals anywhere in the United States.
- **Predictability and Certainty.** Consumers expect and deserve to know that a television set purchased in Los Angeles will function anywhere in the United States, that it will receive all local broadcasts and that it will provide a long service life. A single standard preserves universal access and usage, while also providing the flexibility for future innovation, similar to the way the current standard has accommodated color, stereo-sound, teletext, ghost canceling, closed-captioning and other modifications.
- **Fostering Competition At Home and Abroad.** The adoption of a single standard for broadcast television is an effective means of promoting competition. That fact was proven when the entire broadcast industry in America made a seamless transition from black and white to color television in the 1960's. Without an approved standard and marketplace certainty today, neither manufacturers, broadcasters nor consumers will invest the large sums of money necessary and America will fall behind its international competitors in a technology we invented. The European Community has already adopted a digital standard of its own and is aggressively marketing it around the world. America cannot afford to lose its competitive edge in this technology along with the thousands of jobs it could create.

Why the ATSC Standard?

American broadcasting is at a critical crossroads. On one path lies the ATSC (Advanced Television Systems Committee) standard -- a proven new digital broadcast transmission technology that is second to none in television quality and interoperability with computer applications. On the other path lies a theoretical proposal, being advanced by Microsoft and a handful of others. If the decision were based on viability alone, the FCC would have no choice but to select the ATSC standard. But there are more -- many more -- compelling reasons to adopt the ATSC standard without delay. They include:

- The ATSC standard provides the highest quality broadcast television pictures of any proven technology.
- The ATSC standard is the most interoperable broadcast television system ever devised. It is a consensus technology that will accommodate 18 different formats, including 14 "progressive scan" formats for computer interoperability, as well as four "interlaced" formats -- which are essential to providing high-definition, over-the-air broadcast signals, as well as interoperability with other video delivery media.
- The ATSC standard guarantees the television-viewing public extraordinary picture quality and advanced computer imaging capability. In comparison, the opponents advocate a standard that is intended to improve computer imaging capability but is not directly interoperable with other video service providers.
- The ATSC standard is the product of over \$500 million in research conducted over nearly a decade by representatives from broadcasting, television manufacturing, cable and the motion picture and computer industries. The opponents of the ATSC standard are advocating a standard that does not exist and may take up to five years to develop if it is even practical at all. American consumers should not be forced to wait for a standard that we know today will have television picture-quality and service options that are *inferior* to the ATSC standard.
- Unlike advertiser-supported free television, the computer industry is dependent upon the sale of constantly changing hardware, software and on-line services. The computer industry proposal for a broadcast standard is similarly premised on providing over-the-air television through computer equipment with built-in obsolescence.
- Adoption of the ATSC standard will quickly saturate the market with a multitude of television receivers that rely on the same proven technology. The result will be a swift and steady decline in unit cost to the consumer. Competing or uncertain technologies may never achieve similar economies of scale which are essential to making future televisions

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NOV 14 1996

Federal Communications Commission
Office of Secretary

JACK VALENTI
CHAIRMAN
AND
CHIEF EXECUTIVE OFFICER

November 12, 1996

1600 EYE STREET, NW
WASHINGTON, D.C. 20006
TELEPHONE: 202/293-1966
TELECOPIER: 202/452-9823

Dear Susan

DOCKET FILE COPY ORIGINAL

Thank you for your October 24 letter regarding the proposed digital television transmission standard. We in the production industry share your interest in resolving the technical dispute surrounding this issue.

As you know, MPAA is on record in support of the technical aspects of the Advanced Television Systems Committee's Digital Television Standard ("ATSC Standard"), in particular, the 16.9 aspect ratio and interlaced progressive scanning parameters in relation to interoperability. MPAA believes it is in the best interests of U.S. program providers to lead the way in promoting the emergence of common worldwide technical standards. The 16:9 screen aspect ratio contained in the ATSC Standard will provide maximum accommodation for the transmission of video material original produced in different aspect ratios and will facilitate international program exchange. Moreover, an interlaced transmission format will allow for the broadcast transmission of live action in high definition until such time as technology permits transmission of this quantity of picture information in a progressive format.

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List ABCDE

There is no evidence that the mandatory 480 line baseline format proposed by The Computer Industry Coalition and The Coalition of Film Makers would permit high-definition television (HDTV) from the outset. The proposed ATSC digital television standard will enable theater-quality high resolution films to be displayed on high-definition television sets immediately. For the first time, television viewers will be able to experience movies in their homes on wide screen receivers with picture clarity and surround sound that approaches that available in movie theaters. The ATSC digital television technical standards can provide capability, giving more than twice the vertical resolution (using the 1080 line, progressive scan, 24 frame per second format) than the 480 line baseline format would provide. MPAA believes that broadcasters should have the option of choosing HDTV and, therefore, opposes a mandatory 480 baseline format.

Further, in light of the enormous investment to date by the industry, the government and the public in the existing telecommunications infrastructure, interoperability of digital television with other media is a critical goal of this proceeding. MPAA believes the Standard provides the maximum interoperability with other video media resulting from a variety of scanning parameters that include the interlaced format. The digital TV Grand Alliance system and the ATSC Standard recommended to the Commission by the Advisory Committee represent by far the most interoperable broadcast television system ever conceived. While a majority of video, all motion pictures, and all other material originating in film, including most prime time television programs and commercials, will be transmitted using the

progressive scanning formats, the inclusion of interlaced formats is essential to broadcasters to enable them to transmit both live action events and archived interlaced video programs efficiently and to promote easy interoperability with cable television and satellite services and with international digital video standards, all of which currently utilize interlaced scanning. Moreover, interlaced transmission can be displayed progressively with minimal additional cost to home television receivers.

Additionally, I wish to correct the misimpression that all of the Hollywood community oppose the 16:9 aspect ratio. To the contrary, MPAA believes that the ATSC Standard provides for viewing pictures in virtually any aspect ratio on a 16:9 receiver by using letter boxing or side panels in those cases where the picture does not exactly fit the screen. A 16:9 aspect ratio has been proven through the Advisory Committee process to be an appropriate standard. This decision was initially reached over a decade ago after extended and careful deliberations, with extensive participation by the motion picture and television production communities. The Computer Industry Coalition and the Coalition of Film Makers have averred that the standard forces broadcasters to pan and scan. To the contrary, the ATSC Standard does not require that transmitted programs conform to a 1.78:1 (16:9) or a 1.33:1(4:3) aspect ratio. With a 16:9 receiver, wide-screen feature films (i.e., 1.85:1 and greater) can be viewed in their original formats by using letter boxing. (About 80% of films are 1.85:1, these films would lose only about 4% of their screen height when shown at full width. The remaining 20% of films are 2.4:1, these films would lose about 25% of their screen height.) Because of the

wide variety of aspect ratios used by the motion picture industry in the U.S. and throughout the world, it would not be possible to select a single aspect ratio that perfectly satisfied every need. However, it has been demonstrated that the 16:9 format can accommodate program material or motion picture films of any reasonable aspect ratio.

Finally, the U.S. broadcasting television and computer industries are among the largest and fastest growing sectors of the U.S. economy. These industries contributed at least an estimated \$24 billion in foreign revenues to the U.S. economy in 1994. Moreover, together with other copyright-based industries, the filmed entertainment industry is second only to motor vehicles and automotive parts among U.S. industries in terms of estimated foreign sales and exports. MPAA believes it is in the best interest of U.S. program providers to lead the way in promoting the emergence of common worldwide technical standards. In particular, the 16:9 aspect ratio of the ATSC Standard, also adopted in Europe and Japan, will facilitate international program exchange by minimizing the cost of technology conversion and thereby maintaining cost competitiveness. Additionally, the ATSC Standard is sufficiently flexible to conform to existing international agreements on digital television and thus will present minimal technical barriers to the continued flow of programming from and to all parts of the world.

I hope this letter states clearly the MPAA posture.

As always, thank you for your interest and support of our industry.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack", with a long horizontal flourish extending to the right.

cc: Chairman Reed Hundt
Commissioner James Quello
Commissioner Rachel Chong

The Honorable Susan Ness
Commissioner
Federal Communications Commission
1919 M Street, N.W. - Room 832
Washington, DC 20554