## REMARKS OF

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TO THE U.S. HOUSE OF REPRESENTATIVES

SUBCOMMITTEE ON SCIENCE, RESEARCH AND TECHNOLOGY

Good morning Mr. Chairman and members of the committee. I have prepared a more detailed statement and ask that it be included in the record.

The committee is examining what steps must be taken to ensure a major role for U.S. industry in high definition television, or HDTV. You have asked me to testify because of my work with various technical societies, including the Advanced Television Systems Committee, or ATSC. I would like to make clear that this statement represents my personal views and not necessarily the views of the members of the ATSC.

I believe that voluntary standards -- developed and widely supported by industry -- are essential to maintain orderly and beneficial growth of technology. When it is appropriate to have mandatory standards adopted by the government, the industry must still play the most significant role in developing standards applicable to it. Even though decisions on standards are made in a political and commercial environment, the standards must have a solid technical basis or they will not endure.

There seems to be no question regarding the need for standards for advanced television systems. There are, however, issues related to the mechanism for developing those standards.

The belief underlying the formation of the ATSC was that the most appropriate first step for developing standards for advanced television was private sector agreements. Such agreements would be followed -- at least in the case of broadcast transmission standards -- by government action to incorporate the recommended technical parameters into an official standard. The U.S. black and white and color television standards were the output of a private sector organization -- the so-called NTSC -- whose recommendations became FCC standards. The value of that mechanism is proven by the length of time -- almost 50 years -- that the standards have been in effect with only minor modifications.

During the past several years, many American consumer electronics manufacturers decided to discontinue their operations. These firms decided -- presumably for good reasons -- that their assets could be put to more profitable use. It is reasonable, therefore, to expect that these decisions will not be reversed and that other American firms will not enter the business -- unless they can do so with expectations of higher profits than they experienced previously.

I would like to see more American firms in the business.

Indeed, there is growing opinion in the United States that

American firms should participate in all of the many aspects of
the consumer electronics business, including manufacturing.

Obviously, however, something must happen in the future that did
not happen in the past if American firms are to be coaxed back
into consumer electronics manufacturing. In order for them to do

so, the government will have to establish a clearly articulated policy strongly supporting this objective.

American firms will be reluctant to enter the business if there is a high risk of adopting a "wrong" technology. Standards must be established for this reason alone -- as an adjunct to -- not as a substitute for -- a program of government support.

Some have suggested that standards be employed as nontariff trade barriers. History teaches, however, that caution is called for in this area. In order to promote a domestic television industry, Brazil and France each adopted a color television standard unique to their country. For various reasons the Brazilian effort was unsuccessful and expensive. The French effort was more successful, largely because the French government exercised total management control -- over a long period of time -- to promote its national television industry. Indeed, the French government performed many of the tasks fulfilled by private companies in nations such as ours.

The role of the government is more limited in nations where the private sector's dominance is maintained. However, if there is to be any chance of success of such a program in the United States, our government must make a monumental commitment to achieve its objective. Such commitment would not end with the selection of standards, it would merely begin at that point. If the government decides that this is in the national interest, it must first define its areas of concern. Is it concerned with who owns the firms, with where the product planning is done, or the

engineering, or the manufacturing? Many preliminary decisions are necessary because each area will require different treatment.

The government must then create favorable conditions for the founding and success of American firms. The committee's draft charter lists some means of accomplishing this. I leave it to the experts in those areas to comment on their effectiveness.

For American firms to participate in this business, research and development are absolutely necessary first steps. American firms might acquire a significant share of this market if decisions are made without delay and if the resulting products are sufficiently attractive to the consumer. However, even with substantial government support, success is not guaranteed. While national standards may diminish the effectiveness of foreign competition, they are not an insurmountable obstacle.

I believe that the United States should not adopt a standard based on technology from a foreign country without due regard for its consequences. I also believe, however, that we should not disregard any technology just because it is foreign, or embrace another technology only because it originated in our country. We must first determine what it is we desire in an advanced television service and then adopt appropriate technical standards having a sound technical basis and widespread industry support.

Thank you for the opportunity to share my thinking with the committee, Mr. Chairman. I would be pleased to respond to questions.