

Testimony of
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WHAT IS THE HDTV DEBATE REALLY ABOUT?

There has been a great deal of attention lately devoted to the prospect of High Definition Television. At first glance, one would expect that such an issue primarily concerns new technologies which provide higher quality television pictures. If that were the sum total of the matter, there would be little need for hearings. One would scarcely expect Congressional scrutiny into the prospect of washing machines that spin a little faster or record players with crisper treble sound.

My testimony this morning strongly supports congressional attention to this urgent matter because, indeed, HDTV involves much more than a few additional lines of video on the television screen.

HDTV IS ABOUT MUCH MORE THAN TELEVISION.

High Definition Television is one of several closely related technical developments which will affect the character of both personal and mass communications over the coming decade. Three common characteristics of these new communications media are:

- 1) Higher Quality Video and Sound.
- 2) Increased Options of Choice for the Individual.
- 3) Increased Options for Interactive and Two-way Communications.

The technical basis for this communications revolution is the increased use of computers for intelligent signal processing and an explosive growth of capacity for electronic communications including recorded media such as compact and laser discs, satellite communications, microwave communications and optical fiber.

It is said that we have progressed past the Agricultural and Smokestack-Industrial eras and are now entering the Information Age in which computer power to process information becomes the engine of economic growth. The Europeans and Japanese have recognized the significance of these developments and have devoted significant resources to the development of appropriate industrial capacity.

WHAT IS HAPPENING OVERSEAS?

In Japan both the Ministry of Posts and Telecommunications (MPT) and the Ministry of International Trade and Industry (MITI) have set up bureaus in this field to help coordinate research, planning and policy. In Europe the EC Directorate has established Research in Advanced Communications for Europe (RACE), a cooperative long-term communications research effort, and the Eureka Project, an industry-government applied research consortium. Each of these efforts involves a scale of hundreds of millions of dollars. Our competitors overseas have come to recognize that the chips which are the basis of telephone switches and video displays are the nuts and bolts of the information age. Future television designs will use special-purpose signal processing chips. Although consumer television may generate the largest unit demand for these microprocessors, the same chips will serve as critical components in industrial and military applications for image processing. If because of a blind faith in some abstraction called the marketplace we allow total off-shore domination of the design and manufacture of these critical electronic components, we may put both our economy and our capacity for military security in jeopardy.

HOW SHOULD THE U.S. RESPOND?

The problem with simply relying on the American tradition of private industrial entrepreneurship at this stage is that the communications industries are themselves experiencing revolutionary change. We confront the convergence of the computer, publishing, broadcasting and telecommunications industries. The major players are trying to protect their turf and market share as more and more informational, transactional and entertainment services shift to electronic delivery. The pressure to protect return on investment in the next quarter is a very strong impediment to the type of long-term planning and research vision that this technological transition requires. It should be noted that AT&T and Bellcore are as active as any

other industrial player in the HDTV arena. They recognize that with optical fiber, two-way, high quality video communication will carry more than just reruns of Leave It to Beaver. It will allow for person-to-person communications, retail transactions, and electronic publishing.

In the nineteenth century, we recognized the need to build post roads and canals to facilitate interstate commerce. Following the Second World War, we returned to the issue of building our transportation infrastructure with massive investment and planning for the interstate highway system. We acknowledged that it was more than a matter of wider roads, the health of the nations economic nervous system was at stake.

THE FRAGMENTATION OF PLANNING.

Thus far the American response to the challenge of building our communications infrastructure has been fragmented, disjointed and incomplete. There are a number of institutions aware of the problems, but each approaches the issue partially and parochially.

The FCC's current inquiry into HDTV and Advanced Television Systems, for example, defines the issue very narrowly in terms of spectrum assignments and technical aspects of picture quality. Issues of industrial policy, trade, telecommunications, national security and communications infrastructure have simply not been addressed.

The Advanced Television Systems Committee, represented here today by Bob Hopkins, has been set up to address the HDTV issue and advise U.S. authorities. But it is constrained by its charter to focus exclusively on standards issues. Furthermore, because of the open character of its membership, unlike equivalent advisory bodies in Europe and Japan, it is heavily influenced by the American representatives of foreign manufacturers.

Zenith, the last American industrial firm in the consumer television area, is in the process of selling its television division according to recent press reports. The two interested parties which have thus far come to light are Korean and European.

Zenith, I am sure, is doing the right thing from their economic perspective. They are good businessmen. And that is precisely my point. What might make sense to each firm, taken one at a time, for its long term industrial strategy could lead a significant disaster for the United States as a whole.

A NEW INITIATIVE.

My recommendation for this Subcommittee is to consider a major initiative in this area. It is not as simple as a matter of trade protection or federal investments in research, for I believe neither by themselves would be sufficient. The existing governmental and private institutions which have been active in research and analysis in this area, I have argued, are inadequate to the task. Each current institution has its own priorities reflecting patronage and political support from a particular industrial sector. What is needed, in my judgment, is a new institutional initiative, like those taken in Europe and Japan which explicitly addresses the need for long term planning and the critical convergence of issues of industrial capacity in information technology and national security. I am not sure what precise form such an initiative should take. I would hope it would involve the cooperation of government, industry and academic resources.

I am not recommending a leisurely study, or a blue-ribbon panel whose members do not have the time to make a significant contribution. If we delay for too long, events will surely overtake us.