Executive Comment

THE FUTURE OF THE COMMERCIAL COMMUNICATIONS SATELLITE INDUSTRY

Dr. Ronald C. Maehl
Senior Vice President, Networks and Applications
Boeing Satellite Systems

Quite a bit of attention has been focused recently on the projections for and future state of the satellite industry. This ranges from external influences: such as global economic problems, overcapacity in the fiber industry and the associated impact on fiber companies and network hardware providers, and the recent ".com" meltdown; to internal issues such as alleged overcapacity in the satellite industry itself and new competition from a myriad of alternate technologies.

These issues have sparked concerns about the stability and future of the satellite industry that are very legitimate, but comprise only a partial picture of the future landscape. For example, in spite of these issues and the current economic climate, demand for communications bandwidth, both for the internet and other application continues to grow at a healthy pace. This underlying demand, coupled with established satellite markets such as the global DTH business and emerging markets such as satellite radio, positions our industry well for the future.

The overall global telecommunications market is well in excess of one trillion dollars annually and headed for two trillion dollars. Looking at the big picture we see the satellite piece of this market today is quite modest and herein lies the opportunity. The inherent properties of geosynchronous communications satellites, specifically broadband capability and point-to-multipoint capability, make them inherently desirable to carry a much larger share of traffic in this developing market than they currently do. This increased market share needs only be quite modest, given the size of the global market, and can take many forms.

For example, satellites can be used in conjunction with existing fiber in hybrid network configurations which effectively use them to "unbundle" fiber by providing last mile (or "next to the last mile") capability which can actually improve the fill factor of the fiber as well as leveraging the satellite's inherent capability to provide more cost effective solutions for the end users. As new applications are developed that require higher and higher bandwidth the power of this type of solution will become more and more obvious. The cost advantage of these networks will be further enhanced by new technologies such as sophisticated on-board processing and channelization which will allow bandwidth to be freely switched among spot beams, providing more effective usage of space and ground resources than currently available. This will in turn spawn more applications to be developed as the cost of distribution and network access decreases.

These new systems will radically alter the way the global infrastructure develops, especially in the world's emerging economies, as well as enabling new services and applications in the more developed regions. Satellites are uniquely suited to interface with whatever level of terrestrial infrastructure happens to be in place in any service area so the opportunities abound if we, as an industry have the foresight to capitalize on them.