



wireless cable operators, which dramatically increase their relevance in the market place. However, these competitive benefits can only be brought to maturity if DBC and other digital wireless cable operators can offer the full range of programming which consumers have come to expect.

#### DIGITAL BROADCAST CORPORATION

Digital Broadcast Corporation operates a successful digital wireless cable system in Roanoke, Virginia, serving individual households and multiple dwelling units in Roanoke and Salem. DBC also holds licenses in six other markets and is in negotiation to acquire licenses or airtime rights for other MDS and ITFS channels in fifty more cities around America. DBC has recently increased its capital resources through new investments, including funds from many individual investors, and has established a major investment banking relationship for fifty million dollars.

DBC was able to obtain this financial backing because it has successfully demonstrated, through its Roanoke digital wireless system, that digital compression over MDS frequencies can allow for the delivery of a full range of programming options, even in situations where the operator has far less than the full complement of 33 MDS/ITFS channels at its disposal. DBC holds licenses for or leases only **seven** MDS/ITFS channels in Roanoke, but by employing a digital compression factor of 14:1 (per 6 megaHertz channel), it can offer a competitive line-up of 98 channels.<sup>2</sup>

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<sup>2</sup> Picture quality as delivered to home receivers is equal to or exceeds current NTSC standards.

DBC will use its new financing and the frequencies to which it is acquiring access to deploy even more powerful compression techniques in the future, in the range of 30 or 40 to one. Extensive research by the company has demonstrated that such compression factors are well within the capabilities of emerging technologies.<sup>3</sup>

#### THE FUTURE OF COMPETITION IN THE DELIVERY OF VIDEO AND RELATED SERVICES

Commenter respectfully submits that it would be dangerous for the Commission to assume that any single currently conceivable picture of the future of the delivery of telecommunications services is etched in stone. Past buzz words like “video dial tone” which, at one time, attracted serious corporate attention and investment, are, at least for the time being, oddities in the museum of unrealized technological marvels. And certainly, the MDS industry itself has had its share of unrealized dreams. We respectfully submit that the only reasonable regulatory conclusion to be drawn from the complex and highly dynamic history that has emerged in the recent decades is one of extreme caution.

Certainly one factor that cannot be denied is that traditional wired cable, from its entrenched position, remains the dominating player. With whatever fineness the data on competition in video services delivery is parsed, there can be no doubt that wired cable retains its controlling position.<sup>4</sup>

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<sup>3</sup>The Roanoke system’s 14:1 ratio represents a cutting edge for a fully deployed system. Deployment of higher compression system, while technically feasible at this time, will be dependent on the availability and distribution of home de-coding equipment, which commenter expects to be available in the near future.

<sup>4</sup> *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, C.S. Docket no. 00-132, SEVENTH ANNUAL REPORT; released January 8, 2001, 16 FCC Rec 6005.

Notwithstanding any apparent trends toward leveling of cable penetration and growth of DBS, this essential fact remains clear. Wired cable's notorious profitability, and the ongoing increases of cable rates which far outstrip cost-of-living advances, demonstrate this truth quite clearly.

Further, as shown in detail in the 2001 Annual Assessment<sup>5</sup>, vertical integration of programming production has continued as a significant growth trend.

#### MDS CAN BE A VIABLE COMPETITOR IF IT HAS ACCESS TO COMPETITIVE PROGRAMMING PACKAGES

DBC respectfully suggests that MDS has the continuing potential to provide an important competitive function in the full range of telecommunications services. Historically, the attraction of MDS and wireless cable has always rested on the fact that it offers economies of service delivery which set it apart from wired cable, and, at the same time, a localized identity which sets it apart from DBS. These matters are well known and need not be restated in detail. And, interestingly, as DBC has demonstrated in part in Roanoke and will demonstrate more fully in the near future, by utilizing emerging technologies, a complete range of services can be provided, including video, audio, high speed internet, and telephony.

The key to the competitiveness which DBC envisions lies in the compression ratios now feasible for digital broadcasting. Wireless operators are particularly suited to utilize this capability to offer an important check on cable's monopolistic position and emerging duopoly of cable and DBS. While commenter will not burden the Commission with a rehash of the history of wireless cable over

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<sup>5</sup> *Id.*

the past decade or so, the upshot to be seen is that large parcels of that spectrum have gone into the hands of tel-com providers like Sprint and Worldcom who see it as a potential resource for the next generation of cellular service (in industry jargon, “3G”).

Under previously existing paradigms, an operator needed a full complement of 33 channels in the 2.5 GHz spectrum to deliver a competitive wireless cable offering. At approximately 5:1 compression, such a system could offer a commercially viable package of around 150 channels. A very different scenario is now possible with current ultra-high compression factors. If, as DBC will soon demonstrate, 30, and even 40:1 compression is now ready for deployment, a whole new set of rules apply. It is now possible that leasing of only a handful of ITFS or MDS channels could be the basis for a viable system, offering a full range of services, at a price point which challenges the bloated profits now enjoyed by wired cable. The benefits of increased competition and greater choice for consumers would be experienced not only in video services, but also in other areas, such as telephony and high speed internet access.

An interesting study, made a part of the instant proceedings through the submission of WSNet in connection with certain *ex parte* presentations<sup>6</sup>, which is prepared by Credit Suisse, First Boston, and entitled “Natural Selection - DBS Should Thrive as the Fittest to Serve Rural America” presents a persuasive case to the effect that DBS will soon supplant wired cable in most rural communities. To oversimplify, this elaborate study suggests that below certain population density levels, cable cannot hope to justify the costs necessary for state of the art plants which offer advanced services like high speed internet. MDS, however, can match the cost effectiveness of DBS in such sparsely populated

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<sup>6</sup> Found at the Commission’s web site, <http://www.fcc.gov>, under E-Filing, Electronic comments, in this proceeding, submitted November 9, 2001.

areas. The same economic advantage of plant deployment that makes MDS a viable urban competitor apply also in the rural context. If the dire predictions of this study are correct, it may come to pass that only MDS can offer competition to DBS in many rural markets.

An MDS operator, using perhaps only 4 or 5 of the 2.5 GHz channels, could offer rural areas a range of video services as well as telephony, high speed internet access, and other services, such as security functions. This is so, of course, because plant costs are limited to transmission facilities and home reception and decoding equipment (and, in the case of two way transmission capability, upstream capacity). It can also be noted that in rural areas, MDS wireless cable operators will be able to utilize increased transmitter power levels to reach a geographically wider consumer base (compared to congested urban radio environments), and, in addition, are likely to find more available frequencies, while other providers concentrate on more densely populated urban areas.

However, MDS can only fulfill its potential as significant competitor if relatively small scale operators can offer the same prime programming selections provided, and often produced by, the large cable companies. The simple truth, for better or for worse, is that to most American consumers wireless or wired cable isn't "Cable" if it doesn't include HBO and CNN.

For all these reasons, DBC respectfully urges that the Commission conclude that it would not be in the public interest to sunset the limitations on exclusive contracts for satellite cable programming or satellite broadcast programming, as set forth in Section 628(c)(2)(d) of the Communications Act of 1934, as amended, and that these limitations should be retained.

Respectfully submitted,  
DIGITAL BROADCAST CORP.

By: Benjamin Perez, Its Attorney

Abacus Communications Company  
1801 Columbia Road, N.W., Suite 101  
Washington, D.C. 20009-2001  
(202) 462-3680/Abacus@erols.com

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