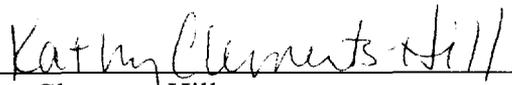


service for all of its stations.

6. Since the initiation of DTV service in the fall of 1998, WFAA-DT has continued to broadcast in high definition the substantial HDTV offerings provided by the ABC Television Network. "Monday Night Football" initiated high definition telecasts for the 1999-2000 season, becoming the first live regularly-scheduled HDTV sporting event in primetime. WFAA-DT also carried ABC's high definition coverage of Super Bowl XXXIV on January 30, 2000 as well as the National Hockey League's All-Star Game on February 6, 2000. In addition, following the groundbreaking telecast of "101 Dalmatians," ABC has provided a series of popular motion pictures, generally scheduled as the network's Saturday or Monday Night Movie presentation, including such box office successes as "The Little Mermaid," "Waiting to Exhale," "Mr. Holland's Opus," "Mission Impossible," "Forest Gump," "The Birdcage," "Jaws," "Dr. Dolittle," "Good Will Hunting," "Lady and the Tramp," "Armageddon," and "The Santa Claus." During the current season, ABC added high definition telecasts of its popular and critically acclaimed prime time series, "NYPD Blue," to the weekly lineup.
7. In addition, WFAA-DT has itself produced a number of high definition programs, including coverage of the 1999 and 2000 Adolphus Hotel's Christmas Parades, a program spotlighting the Women's Museum in Dallas, and a special presentation focusing on the Dallas Cowboys football team, hosted by WFAA's Dale Hansen. WFAA-DT has also aired several special presentations produced in high definition by its sister stations in the Belo television station group, including coverage of the Mardi Gras Parade (WWL-TV, New Orleans) and the Starlight Parade (KGW-TV, Portland, Oregon). Finally, we have acquired and broadcast in high definition a number of outstanding programs from independent producers as well as specials produced by other stations participating in a high definition television consortium (Attachment A hereto lists illustrative examples.)
8. In short, Belo, like many of its fellow broadcasters, has committed enormous resources to the implementation of digital service, has met all deadlines specified by the Commission and, in fact, has exceeded the agency's requirements by initiating service in its three largest markets far in advance of the date established in the FCC's transition timetable. As noted above, WFAA-DT has offered compelling high definition digital programming, including coverage of major sporting events, popular motion pictures, prime time series, and significant local events. The construction of digital transmission facilities and the acquisition and production of high definition programming has been difficult and extremely costly. While the shift to DTV operations has dramatically increased Belo's operating expenses, it is entirely speculative whether WFAA-TV/DT will be able to recover these costs in any normal economic return on investment time frame.
9. To justify continuing expenditures of the magnitude necessary to make DTV a success and, in particular, to develop additional high definition programming to

expand WFAA-DT's schedule, it is critical that the station be able to reach the entire potential audience in its market area. In the Dallas-Fort Worth DMA, however, well over one million households, or 50 percent of the total, are subscribers to cable service. The great majority of these cable subscribers are served by systems operated by AT&T or Charter Communications. To date, unfortunately, Belo has met with no success in securing cable carriage for WFAA-DT. For example, within the last six months, Belo was unable to obtain digital carriage rights for WFAA-DT in connection with negotiations relating to retransmission consent rights with a major cable MSO. Similarly, to my knowledge, no other Dallas-Fort Worth station has yet achieved carriage for its DTV facility.

10. In short, although WFAA-TV/DT and Belo's other television stations have made and will continue to make a very substantial commitment to the implementation of digital television service, their efforts to expand DTV service are being frustrated by the inability to secure cable carriage for their high definition programming. Carriage on the cable systems that serve half of the households in the market would significantly increase the economic incentive for Belo to continue its investment in HDTV and, most importantly, to expand its acquisition and production of costly high definition programming. Conversely, the inability to secure cable carriage severely limits that incentive.


Kathy Clements-Hill

Dated: June 7, 2001

**Additional WFAA-DT
High Definition Programming**

Extreme Sports Montage (HD Vision)
Starlight Parade (KGW)
Moving the Lighthouse (Consortium)
Navajo Weaving (Consortium)
Kids News Network (Consortium)
Women's Museum (WFAA)
Mardi Gras Parade (WWL)
Hot Air Balloons (HD Vision)
Austin Bats (HD Vision)
Water Ski Tricks/Zenith Spot (HD Vision)
The Paul Woods Story (Green Production)
Birth of a Legend-Corvette (Green Prods)
Hawaii Demo (HD Vision)
Wide Blue Yonder (HD Vision)
Shuttle Discovery (HD Vision)
Texas Wild (HD Vision)
Sinners & Saints (Consortium)
Colorado (HD Vision)
Raleigh Christmas Parade (WRAL)
Adolphus Parade 2000 (WFAA)

APPENDIX D

APPENDIX D

SYSTEM CAPACITY OF TOP NINE CABLE MSOs* **

Company	Est. Share of Cable HHs	Current System Capacity	Forecasted System Capacity	Date Forecasted	# Digital Ready Homes
All (Kagan Projection)	100%		85% subscribers--750 MHz+	2001	
AT&T	22.92%	majority systems at 750 MHz 75%+ systems at 550 MHz+	majority systems already at 750 MHz	2001	all
TW Cable	18.45%	92% plants at 750 MHz	100% systems--750 MHz+	end of 2001	10.5 million homes
Comcast	11.14%	70% subscribers--750 MHz+	90-95% systems--750MHz	2001	7.2 million homes
Charter	9.15%	14% subscribers--550 MHz+	70% customers--550 MHz+	end 2002	8.81 million homes
Cox	8.94%	70% networks--750 MHz+	88% customers--750 MHz+	end 2002	
Adelphia	8.25%	majority plant at 550 MHz+	83% networks--750 MHz+	end 2001	8.1 million homes
Cablevision	4.28%	71% plant 750 MHz	82% systems--750 MHz+	end 2002	5.4 million homes
Insight	2.03%	Two-way 750MHz plant	18% plant--550MHz+		
Mediacom	1.12%	74% networks--550-750 MHz	84% total plant 750 MHz	end 2001	0
			99% customers--750 MHz+	2002	1.10 million homes
			95% systems--550 MHz-870MHz	Dec-02	470,000 homes

*Citations for data listed on succeeding pages.

**For data for MSOs ranked 10-23, see John M. Higgins Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting Cable, June 4, 2001, at 30.

All (Kagan Projection)

Estimated Share of Cable Households, Forecasted System Capacity, and Date Forecasted

See Paul Kagan Associates, *Cable TV Technology*, May 28, 1999, available at <http://www.kagan.com/kmarket/dbdef.shtml>.

AT&T Broadband

Estimated Share of Cable Households

AT&T Broadband's estimated share of cable households was determined by dividing AT&T's total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30 divided by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>.

Current and Forecasted System Capacity and Date Forecasted

"At December 31, 2000 over 75% of AT&T Broadband's cable television systems had bandwidth capacities of at least 550 megahertz, with the majority of the network upgraded to 750 megahertz."

SEC Form 10-K405 (filed April 17, 2001)

Number of Digital Ready Homes

The number of AT&T digital ready homes is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30.

"Compressed digital video technology converts on average twelve analog signals (now used to transmit video and voice) into a digital format and compresses such signals (which is accomplished primarily by eliminating the redundancies in television imagery) into the space normally occupied by one analog signal."

SEC Form 10-K405 (filed April 17, 2001)

Time Warner Cable

Estimated Share of Cable Households

Time Warner Cable's estimated share of cable households was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>

Current System Capacity

"Over the past several years, Time Warner Cable has pursued a strategy of upgrading its existing cable systems generally to 750 MHz capability, based on a hybrid fiber optic/coaxial cable architecture. By year-end 2000, Time Warner Cable had completed the upgrade of approximately 92% of its cable plant."

SEC Form 10-KT405 (filed Mar. 27, 2001) at I-9.

Current and Forecasted System Capacity and Date Forecasted

"Noting that Time Warner Cable had upgraded 92% of its cable systems to 750 MHz, [Time Warner Cable Chairman Joseph] Collins said MSO's huge capital spending program finally was coming to end. 'The construction project is over,' he said, predicting that company's cable plant would be 100% rebuilt by end of year."

Warren's Cable Regulation Monitor, *AOL Time Warner Reports Strong 4th-Quarter Gains for AOL, Cable*, (Feb. 5, 2001).

Number of Digital Ready Homes

The number of Time Warner Cable digital ready homes is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 32.

"During 2000, Time Warner Cable continued its aggressive roll-out of digital cable service in its cable systems. As of December 31, 2000, Time Warner Cable had more than 1.7 million digital service subscribers. As of March 1, 2001, 38 of Time Warner Cable's 39 field divisions are offering digital cable and the one remaining division is expected to commence offering digital service in 2001."

SEC Form 10-KT405 (filed Mar. 27, 2001) at I-10.

Comcast

Estimated Share of Cable Households

Comcast's estimated share of cable households was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints, Broadcasting & Cable*, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>.

Current System Capacity

"As of January 31, 2001, approximately 84% of our cable subscribers were served by a system with a capacity of at least 550-MHz and approximately 70% of our cable subscribers were served by a system with a capacity of at least 750-MHz."
SEC Form 10-K (filed Mar. 16, 2001) at 2.

Forecasted System Capacity and Date Forecasted

"Comcast... Network 80% 750 MHz, 90-95% early '01, slowed somewhat by the acquisition of systems."

Paul Kagan Associates, *Broadband Technology Newsletter*, Jan. 22, 2001, available at <http://www.kagan.com/kmarket/dbdef.shtml>.

Number of Digital Ready Homes

The number of Comcast's digital ready homes is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints, Broadcasting & Cable*, June 4, 2001, at 32.

"We are deploying fiber optic cable and upgrading the technical quality of our cable communications networks. As a result, the reliability and capacity of our systems have increased, aiding in the delivery of additional video programming and other services such as enhanced digital video, high-speed cable modem service and, in some areas, telephony... We have and will continue to upgrade our cable communications systems so that we can provide... new services such as video on demand,... interactive television and cable telephony more rapidly to our subscribers... We offer a variety of services over our cable communications networks, including traditional analog video and new services such as digital cable and high-speed speed cable modem service. Available service offerings depend on the bandwidth capacity of the cable communications system. Bandwidth, expressed in megahertz (MHz), is a measure of information-carrying capacity. It is the range of usable frequencies that can be carried by a cable communications system. The greater the bandwidth, the greater the capacity of the system. As of January 31, 2001, approximately 84% of our cable subscribers were served by a system with a capacity of at least 550-MHz and approximately 70% of our cable subscribers were served by a system with a capacity of at least 750-MHz."
SEC Form 10-K (filed Mar. 16, 2001) at 2, 3-4.

Charter Communications
Estimated Share of Cable Households

Charter Communication's estimated market share was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>.

Current and Forecasted System Capacity and Date Forecasted

"Charter ended the year with 1,069,500 digital cable customers, nearly seven times the number it had on December 31, 1999... Mr. [Jerry] Kent[, Charter Communications President and CEO,] said Charter remains ahead of schedule in its \$3.5 billion project to build what is recognized as one of the most robust broadband infrastructures in the industry. 'Approximately 70% of our customers are served by plant upgraded to at least 550 megahertz, and more than 50% of our customers have access to two-way enacted plant. By the end of the year 2002, nearly 93% of our customers will be served by 550 megahertz plant or greater, providing full, two-way interactive capability,' he added."

Press Release, Charter Communications, Charter Communications Reports Continued Revenue, OCF, and Customer Growth in Fourth Quarter 2000 Financial Results (Feb. 15, 2001).

"As a result of this rebuild effort, by year-end 2002, we expect that 93% of our customers will be served by systems with bandwidth of 550 megahertz or more. Complementing our system upgrade in 2000, we emphasized the roll-out of our digital services, which we believe will serve as the platform for interactive and other advanced services... We are upgrading the technical quality and capacity of our existing systems. We will build out new systems to a minimum bandwidth of 550 megahertz or greater, which will allow us to:

- offer advanced products and services, such as digital television, high-speed Internet access and other interactive services;
- increase channel capacity up to 82 analog channels, and add even more channels and services when our bandwidth is used for digital signal transmission; and
- permit two-way communication, so that Internet access does not require a separate telephone line and our systems can provide telephony services.

By year-end 2002, when we anticipate that the upgrade of our existing systems will be substantially complete, we expect that approximately 93% of our customers will be served by cable systems with at least 550 megahertz bandwidth capacity, 88% of our customers will be served by cable systems with at least 750 megahertz bandwidth capacity and 89% of our customers will have two-way communication capability... Approximately 87% of our revenues for the year ended December 31, 2000 are attributable to monthly subscription fees charged to customers for our basic, expanded basic, premium and digital cable television programming services, Internet access through television-based service, dial-up telephone modems and high-speed cable modem service, equipment rental and ancillary services provided by our cable systems."

SEC Form 10-K (filed Mar. 6, 2001) at 4, 14, 34.

Number of Digital Ready Homes

The number of Charter Communication's digital ready homes is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 32.

Cox

Estimated Share of Cable Households

Cox's estimated market share was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>.

Current and Forecasted System Capacity and Date Forecasted

"Cox's cable systems have bandwidth capacities ranging from 400 to 750 megahertz (MHz) or greater. At the end of 2000, Cox had upgraded 70% of its networks to a bandwidth capacity of 750 MHz or greater and anticipates that approximately 83% of its networks will have bandwidth capacity of 750 MHz or greater by the end of 2001."
SEC Form 10-K405 (filed Mar. 19, 2001) at 2.

Number of Digital Ready Homes

The number of Cox's digital ready homes is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 34.

See also Cox's SEC Form 10-K (filed Mar. 19, 2001) at 4. ("Digital compression technology currently allows up to 12 digital channels to be inserted into the space of only one traditional analog channel. Digital compression enables Cox to increase the channel capacity of its cable systems to approximately 250 channels. Cox believes that its cable system upgrades, along with the implementation of digital compression technology, will provide its customers with greater programming diversity, better picture quality, improved reliability and enhanced service.")

Adelphia Communications Corporation
Estimated Share of Cable Households

Adelphia's estimated share of cable households was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>.

Current System Capacity

"Adelphia is... 550 MHz in most of its plant,' [Paine Webber media analyst Tom] Eagan said." John M. Higgins, *Some Gains, No Pain-Yet; Cable Execs Report That, So Far, There is Little Damage from Invigorated DBS*, Broadcasting & Cable, Apr. 24, 2000, at 14.

Forecasted System Capacity

"Approximately 82% of the Systems will be upgraded to greater than 750Mhz. Approximately 18% of the plant will remain at 550 Mhz."
SEC Form 10-K (filed Apr. 2, 2001)

Date Forecasted

"By the end of '02, Adelphia expects to have 85% of its plant rebuilt to 750-MHz."
Earnings: Adelphia Puts 880K Subs Worth of Systems on the Block, Cablefax, May 15, 2001.

Number of Digital Ready Homes

The number of Adelphia's homes digital ready is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 34.

See also Adelphia's SEC Form 10-K. ("Digital video services are available to Adelphia subscribers who lease a digital converter. Digital TV is a computerized method of defining, transmitting and storing information that makes up a television signal. Since digital signals can be "compressed," Adelphia can transmit up to 12 channels in the space currently used to transmit just one analog channel. Adelphia Digital Cable TV subscribers may also receive "multichannel" premium services, such as four genres of HBO programming from east and west coast satellite feeds, enhanced pay-per-view options, digital music, an interactive on-screen program guide to help them navigate the new digital choices, video-on-demand and interactive programming and e-commerce.")

Cablevision

Estimated Share of Cable Households

Cablevision's estimated market share was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints, Broadcasting & Cable*, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>.

Current System Capacity, Forecasted System Capacity, Forecasted Date

"The Company's cable television systems have a minimum capacity of 42 channels. Currently 95% of its homes are served by at least 77 channels and 71% of the total plant is 750 MHz capable two-way interactive. As a result of ongoing upgrades, the Company expects that by December 2001 approximately 97% of its subscribers will be served by systems having a capacity of at least 77 channels and 84% of the total plant will be 750 MHz capable two-way interactive."

SEC Form 10-K (filed Mar. 30, 2001) at 7.

"Among Cablevision's most ambitious projects is its ongoing facilities rebuild program, the fastest in the cable industry, creating state-of-the art 750 MHz, 500 home-node fiber-optic cable systems throughout Cablevision service areas. To be completed by the end of next year, this 34,000 route-mile rebuild will effect the shift from analog technology to the limitless world of digital entertainment and communications."

Cablevision web site, Broadband Overview,

<http://www.cablevision.com/company/content/bro/overview.html>.

"The Company continues to aggressively upgrade its cable network and anticipates that by year-end 2001 approximately 84% of the total plant will be 750 MHz capable two-way interactive with a maximum of 500 homes per node and 97% of the total plant miles will be a minimum of 550 MHz capable."

Press Release, Cablevision Systems Corporation, Cablevision Systems Corporation Reports Fourth Quarter Financial Results (Feb. 14, 2001).

Number of Digital Ready Homes

The number of Cablevision's digital ready homes is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints, Broadcasting & Cable*, June 4, 2001, at 34.

Insight

Estimated Share of Cable Households

Insight's estimated market share was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>.

Current System Capacity

“Insight... [t]wo-way, 750 MHz plant with Motorola DCT-2000s.”

Paul Kagan Associates, *Broadband Technology Newsletter*, Jan. 22, 2001, available at <http://www.kagan.com/kmarket/dbdef.shtml>.

Forecasted System Capacity

“We are in the process of the upgrading almost all of our network to provide at least 750 MHz bandwidth and two-way active capability with 700 homes per fiber node, which can be further subdivided four times. The result will be a significant increase in network capacity, quality and reliability which facilitates the delivery of new and enhanced products and services and reduced operating costs. Our aggressive investment in our broadband cable network upgrade allows us to expeditiously offer these services to substantially all of our customers... After completion of our planned network upgrades, over 99% of our customers will be served by a network that is two-way active and 750 MHz... One of the advantages a local cable operator has over nationally distributed competitors is its ability to develop local programming. To further strengthen community relations and differentiate us from direct broadcast satellite television systems and other multichannel video providers, we provide locally produced and oriented programming. Several of our systems have full production capabilities, with in-house and/or mobile production studios to create local content. To attract viewers, we offer a broad range of local programming alternatives, including community information, local government proceedings and local specialty interest shows. In some of our markets, we are the exclusive broadcaster of local college and high school sporting events, which we believe provides unique programming and builds customer loyalty. We believe that our emphasis on local programming creates significant opportunities for increased advertising revenues. Locally originated programming will also play an integral role in the deployment of our new and enhanced products and services. Customized local content will be available to our customers through our digital cable and high-speed data services, as users will be able to access local information, such as weather reports, school closings and community event schedules on-demand.”

SEC Form 10-K405/A (filed 4/26/2001) at 3,4, 18-19.

“Insight Communication... is on the verge of launching the first phase of its 870-megahertz system systems, giving it access to 200 more channels.”

Newpoff, Laura, *Area's 3 TV Cable Systems Squaring Off With Upgrades*, Business First-Columbus, Feb. 26, 1999, at 12.

Date Forecasted

“After completion of our planned network upgrades, over 99% of our customers will be served by a network that is two-way active and 750 MHz... We expect to substantially complete the upgrade of this district [Indiana] by the end of 2001... The network upgrades and consolidation of headends [Kentucky] are substantially completed... We expect to invest approximately \$56.0 million to upgrade these systems [Illinois], and that the upgrades will be completed during 2002... We will begin upgrading the Griffin [Georgia] system to enhance the digital service during 2001... We are currently upgrading the Ohio system to 870 MHz, and began servicing customers from our upgraded network in November 1999.”

SEC Form 10-K405/A (filed Apr. 26, 2001) at 3, 9-10, 12, 13, 16.

Number of Digital Ready Homes

The number of Insight’s digital ready homes is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 36.

Mediacom

Estimated Share of Cable Households

Mediacom's estimated share of cable households was determined by dividing their total number of subscribers as listed in the chart in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 30 by the number of homes subscribing to cable, which was extrapolated from Nielsen Media Research, *February 2001 DMA Cable Estimates*, Feb. 2001, available at <http://www.nielsenmedia.com/nsi>

Current System Capacity

"Including the cable systems we acquired in 2000, approximately 74% of our cable network was upgraded with 550 MHz to 750 MHz bandwidth capacity and 47% of our homes passed were activated with two-way communications capability as of December 31, 2000."
SEC Form 10-K (filed Apr. 2, 2001) at 4.

Forecasted System Capacity and Date Forecast

"We are rapidly upgrading our cable network to provide new broadband products and services, improve our competitive position and increase overall customer satisfaction. By December 2002, we anticipate that 95% of our basic subscribers will be served by cable systems with 550 MHz to 870 MHz bandwidth capacity and two-way communications capability."

"By December 2002, we expect that 95% of our basic subscribers will be served by cable systems that have been upgraded with 550 MHz to 870 MHz bandwidth capacity and two-way communications capability."
SEC Form 10-K (filed Apr. 2, 2001) at 6, 13.

Number of Digital Ready Homes

The number of Mediacom's homes digital ready is found in John A. Higgins & Gerard Flynn, *Cable Slows, DBS Sprints*, Broadcasting & Cable, June 4, 2001, at 36.

See also SEC Form 10-K (filed Apr. 2, 2001) at 4. ("As of December 31, 2000, our digital cable service was available to 400,000 basic subscribers, and our high-speed Internet access, or cable modem service, was launched in cable systems with 486,000 homes passed.")

APPENDIX E

Except from Transcript of AT&T/Media One
Cable Services Bureau Hearing
February 4, 2000

Bill Johnson:

It's sort of a generic question, which comes up in this proceeding and other proceedings is, which is increasing faster, program supply or channel capacity? I think we've heard both answers in the various proceedings.

James Cicconi:

I think it's a very difficult question. Obviously, it's something that's involving a prediction of technology and the ability of the market to respond. But it seems to me, frankly, that channel capacity is not only increasing exponentially, but is about to go even beyond that as it goes digital. And I think if this Commission's record in proceedings don't find any evidence of any sort of programming access difficulties today they found actionable, then and certainly as we move to the greatly increased capacity of digital cable with 1000 stations instead of 120 that, frankly, my belief is that, and my company's belief, is that we are going to be crying for content.

Bill Johnson:

Does that include digital must carry signals?

No response...

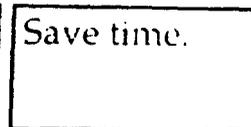
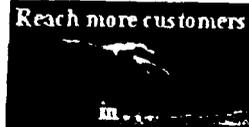
Deborah Lathen:

Is that the Fifth?

James Cicconi:

Yeah.

Media Central



Cable World Bandwidth Debate: Just How Much Will Be Enough?

By Jim Barthold

As long as there has been a cable industry, there have been dire predictions that there's not enough bandwidth to accomplish everything. Today, with the specter of must-carry high definition television (HDTV) looming and the increased popularity of high-speed data, cable telephony and even video-on-demand, the whispers are getting louder.

There just isn't enough bandwidth.

"I'll tell you what the determining factor is going to be. It's the amount of broadcast programming that the operator wants to put out, programming content that he just wants to spray all over the homes in his area. That's what really chews up the bandwidth," said David Grubb, marketing VP in General Instrument Corp.'s transmission network systems business unit.

Paul Connolly, VP-marketing and network architecture with Scientific-Atlanta Inc.'s transmission network systems is equally alarmist.

"The biggest bandwidth hog is still obviously analog channels, if you assume with your business case that you're competing with direct broadcast satellite so you want a lot of analog channels," he noted.

So, how much bandwidth is enough?

"We think 20 GHz is what we want," joked Tony Werner, senior VP-engineering and technical operations for Tele-Communications Inc.

On a serious note, Werner, and other industry leaders, feel that the 750 MHz plateau on which the industry has settled, with some deviations to 450,

550 and 860, is a comfortable place to be.

"The issue isn't how much is enough. I think 750 is certainly enough," Werner said.

Of course, if 860 was available at the right price, what then?

"The analogy I use is if you're out buying a house and all you need is 3,000 square feet, but there's one over there that's 3,800 square feet for an extra \$2, most people will opt for the extra 800-square feet, even though there's absolutely no requirement today or in the future," he continued.

That's because the way the industry looks at bandwidth has changed.

"Digital broke the paradigm of you upgrade to the next technology bandwidth, keep adding 6 MHz channels and when you run out, you run back to the vendors and ask, 'What can you do for me today?'" explained Alex Best, senior VP-engineering for Cox Communications Inc. "The only freedom you had to add more channels was to add more bandwidth. Now we have two additional degrees of freedom."

One of those is using digital compression more efficiently by moving from 64 to 256 QAM (Quadrature Amplitude Modulation). The second is subdividing fiber-fed nodes based on customer demand.

MediaOne is pursuing both routes, said senior VP-engineering and technology Jerry Wolfer.

"What we have going for us, versus what you might have had when you went to 450 or 550, is that we've moved to digital and digital has given us these modulation efficiencies," he explained.

This digital capability, he pointed out, lets systems compress two HDTV signals into a single 6 MHz slot - despite whatever format is used, effectively obliterating the must-carry threat.

"We're figuring 18 megabits per channel, and that's 1080i (interlaced), that's 720p (progressive), that's whatever you want it to be," Wolfer pointed out. "I built the plant here around 1080i, knowing that

there's some upside in that because not everyone is going to do 1080i."

If digital solves the HD problem, then node size does the job for contention-based services such as telephony, high-speed data and video-on-demand.

"If they're (data services) extremely popular and people are using high bandwidth services over them, we can subdivide our nodes to make them smaller," said Jim Chiddix, chief technical officer for Time Warner Cable. "If they're smaller, we get to re-use the frequencies. The same is true of video-on-demand. With just two or three 6 MHz slices we can serve a lot of video-on-demand customers and, if we need to subdivide those nodes, we can do that there as well."

While every engineer feels that 750 is plenty, Werner sees places where 450 or 550 will suffice.

"You have to have enough bandwidth to offer high-speed data, perhaps some telephony, which is likely to be embedded in the high-speed data under an IP (Internet Protocol) scenario," he explained.

Relinquishing two or three channels for those services still leaves 62 analog channels in a 450 MHz system, he noted. Werner would then take 12 of those channels and compress them into a digital tier, leaving a 50-channel analog offering.

"That's probably fairly competitive," he said.

It's also on the low end. Cox, for one, uses 650 MHz of its bandwidth for analog and devotes the rest to digital, telephony, high-speed data and whatever else is coming up in the future, said Best. He can also take the 50 MHz he has dedicated to near video-on-demand and switch it to pure VOD, if that becomes necessary, he said.

"We have 180 channels of video, 40 channels of audio, a (program) guide, high-speed data, telephony service and no obvious need today of saying we need to do something else," he said.

Impact

Best said that no matter how wildly popular high-speed data becomes, or how much bandwidth consumers

grab, Cox will be the last to feel the impact.

"Before I have a problem @Home (Network) is going to have a problem. Before @Home has a problem, the true Internet backbone infrastructure has a problem. Long before I have to allocate more 27 megabits channels for the Internet, @Home is going to have to beef up its backbone infrastructure," Best predicted.

"I can handle 10 of my 50 Internet customers trying to stream video down my cable system long before @Home can handle thousands of nodes of five people trying to stream video. And long before they have a problem the Internet is going to have a problem," he added.

That's because the cable plant is amazingly flexible, said Wolfer. For wildly successful services, he said, he'll just throw in block converters.

"At the node, when you block-convert you have all this fiber to return on," he said. "At each node we have 500 homes passed, but that usually represents four trunk lines ... running off there that have 125 homes per trunk on the coax. I have four 750 MHz shots going out of that node and I can block convert any single one of those.

"I just can't see where I'm going to run out of capacity on high-speed data because I have six fibers sitting at my node and I really have four 750 MHz equivalents on that node," he continued.

While most agreed that 750 MHz is more than enough, there were a few signs that if 860 or even 1 GHz became economically feasible, it wouldn't be ignored.

"If I can install a 1 GHz upgrade at a 5% premium to 750, I'll do it," said Best. "If they (vendors) want a 50% premium, I think I'll take my chances on 256 QAM and subdividing the nodes."

Wolfer agreed, but pointed to the time-to-market factor for MediaOne to deploy its passband networks versus other options, such as fiber-to-the-curb baseband models being proffered by telcos as a reason for not deviating from the 750 plan.

"My argument is I can get to market faster; I can get

to market with more bandwidth; and I can get to market with more reliable product," he contended.

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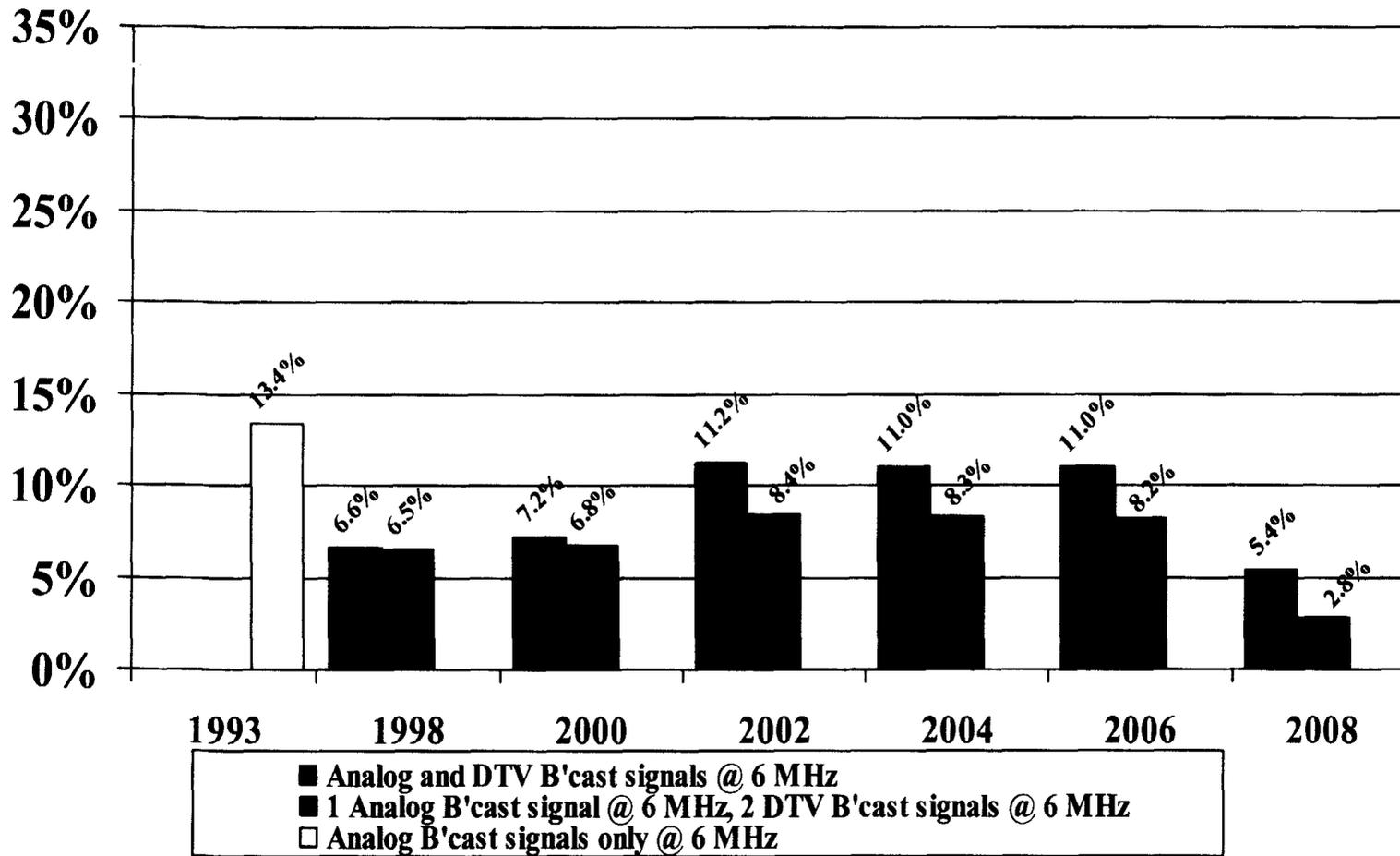


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APPENDIX F

Relative Burden Chart: Local Commercial Broadcast Stations as a Percentage of Cable System Capacity



1993 figure based on average commercial broadcast stations per market as percentage of average system channel capacity.

1998-2008 figures based on average bandwidth of commercial broadcast stations per market as a percentage of average available cable system bandwidth.

Sources: Cable system bandwidth: Kagan's *Cable TV Technology Newsletter*, "10-Year Cable TV Construction Projections," May 28, 1999. Analog broadcast stations, 1993-2000: FCC documents. Digital broadcast stations: 1998-2000, NAB. Other notes: 2002-2008, assumes 1,288 DTV commercial stations on air (number of analog stations on air at 9/30/00); analog stations excluded as of 2008. Estimates assume the following system capacities: 750+ MHz, 116 (6 MHz) channels; 550 MHz, 83 (6 MHz) channels; 450 MHz and less, 50 (6 MHz) channels.